RICHES

RENEWAL, INNOVATION AND CHANGE:
HERITAGE AND EUROPEAN SOCIETY

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D3.1 Transformation, change and best practice for CH processes

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EXECUTIVE SUMMARY

Over the past two decades, technological developments, such as innovative hardware and software, fast-expanding network technologies, mobile devices, information retrieval channels, interactive multimedia, the rise of big data, social media and open source movements, have had a great economic and, above all a social impact on our lives. They have radically changed the way that we find and receive our information, live our lives and, most importantly, how we communicate.

Scientific and cultural heritage institutions, individuals, makers and performers, as part of society, are subject to this evolutionary change. How do they react to the challenges of the digital era? What are their strategies and approaches? How can they benefit from digital technologies? This deliverable presents the results of investigations into how digital practices are transforming the traditional cultural heritage interactions and practices.

As a consequence, the deliverable explores the current challenges and potential opportunities for cultural heritage that lie ahead and reflects the context of change related to five fields:

- Cultural Heritage held by cultural institutions and their way of holding, preserving, curating and accessing it
- Mediated and unmediated cultural heritage with focus on the relationship between living or contemporary media and what is formally considered as cultural heritage
- Cultural heritage in the form of traditional hand-making skills and knowledge and the opportunities to transfer them into advanced manufacturing sectors via opportunities provided by digitization
- The support of dialogue and exchange between administration, citizens, civil society and the economic sector related to transformations of physical spaces, places and territories
- The transformation of digitization on performance-based cultural heritage

Although diverse, the deliverable will consider the commonalities of cultural heritage drivers and impact upon everyday and working lives. Research has taken place into what digitization has changed and may change in the future for those who work with the cultural heritage as experts, as well as on the audience level. What each of the investigated fields have in common, what unites them and can be considered as joint approaches and areas of activity have been experienced or are currently facing reorganization in response of changed audience behaviour and expectations. This can be briefly characterized by the keywords interaction and co-creation, which are discussed, as well as further steps needed to optimise cultural heritage, which in this context is defined as a dynamic phenomenon:

> *"an iterative, continuous process which is concerned with contemporary 'living cultures' that may reinterpret and recreate their culture and can play a vital co-creative and participatory role in the expression, production and consumption of culture. Cultural Heritage reinforces a group's 'culture', their way of life."* (RICHES Taxonomy 2014)

Chapter 2, which *concentrates on cultural heritage that is held by cultural institutions*, investigates the impact of digitalization on cultural heritage work by asking how the internet age is impacting on curation and preservation work of libraries and museums. Furthermore, it reflects on how new user demands are currently taken into account and must be considered in the future. The web 2.0-related change ("from consumers to producers") is considered as a path towards more transparency, participation and innovation – and, thus, as a chance for museums and libraries to find a more direct and open exchange with current and new users, the least particularly among what is often referred to as "digital natives".

Most CH institutions have developed a clear digital strategy and have their own website and this is used for a variety of activities from marketing to increasing access to their collections and engaging with their audience. However, there is a requirement for further standardization to make the data and information searchable and comparable. Presently, about one third of the EUs cultural heritage institutions have a digitisation strategy, but most of them lack staff and finances for further development. The result of this is that 57% of Europe's cultural heritage collections still need to be digitized which is estimated will take until 2040.

Providing an entertaining experience is the main challenge as this is what most visitors expect. The museums have to work hard to create unique experiences to fulfil user's needs and to gain public awareness and appreciation. Where successful with this two-tiered approach, memory institutions can introduce a co-creation process where they and their audience can develop and create value together and bring their audience to a perception of cultural heritage as an element that holds and keeps together. This deliverable argues that by embracing new technologies and the opportunities it affords will contribute to safeguarding cultural heritage institutions in the 21st century.

Digital preservation is also important, as more cultural heritage components are transformed into digital formats. One of the biggest challenges here is to ensure adequate representation and long-term access to the digital information, as technical standards and user habits that are constantly changing.

Chapter 3 looks at the relationship between mediated and unmediated heritage with focus on contemporary interpretation of heritage in the web 2.0 (into 3.0) era of dialogue, considering new approaches to cultural heritage curatorial and interpretative practices. The younger generation's meaning-making approach, characterized by the terms "speed and ease" draws a picture of individualized storytelling characterizing everyday life and seeming to increasingly overrule knowledge presented by "authorized cultural heritage managers".

The investigation considers that formal heritage institutions, to avoid losing relevance in the 21st century, must pay more attention to diversity and digital youth culture. It considers potential opportunities to overcome the "old-fashioned" image of museums that currently seems to prevent young people from entering memory institutions – an issue that is not only important for the institutions as such, but also of crucial social relevance at a time that is widely experienced as an identity crisis with sometimes dramatic effects.

Even those people heavily involved in cultural transmission and identity work tends to engage themselves outside formal institutions, i.e. work with intangible heritage, as this better fits with their flexible understanding of culture that prefers dialogue to pure dissemination. The didactic voice is replaced by multivocality, information consumption by becoming a producer or at least part of an interactive process, which reforms our consensual ways of understanding reality.

Texts written by curators are often not read by digital natives anymore – and if they are read, they are often not trusted.

The analysis concludes that new formats of heritage presentations must be developed, guided by the "power to the people" principle, i.e. actively interlinking existing heritage to personal experience through acts of recreation, resulting in user-generated contents. This is much less bound to institutions than in the past, as it can even be social media traditions, recipes, attitudes that are shared, discussed or even reproduced with a new flexible interpretation of originality, that allows e.g. using old traditions in new ways, such as old songs in hip-hop music and digital memory processing.

Chapter 4 investigates the *impacts of post-industrial technologies on the craft sector in all areas of its professional practice.* On this basis, it identifies trends, opportunities and challenges for a craft revival. Crafts are seen as a valuable facet of European cultural heritage, of equal relevance to all European countries and sharing a series of transnational attributes (e.g. labour-intensiveness, an underlying array of specialized knowledge and skills that are becoming increasingly rare) and a rapidly decreasing market demand for craft products, which results in the sector facing a steep decline. At the same time, the European crafts sector presents a high diversity, corresponding to different socio-cultural, economic and political contexts in different European countries.

The chapter starts with an overview of technological impacts on craft practice, focusing on the process of design and making, online promotion, customer communication and online sales, and changes to professional requirements for craft practitioners. In design and making, digital technologies are increasingly used for conceptualization as well as in the production process per se, though conditioned by access to software, new devices and special technical skills. Laser cutting and additive manufacturing are referred to as two promising options here, presumably becoming more common in the future. The advantages for the makers are described as very tangible, ranging from time and money savings to an increasing variety of options that enables experimentation and new kinds of products.

With respect to the impacts of digital technology on promotion, communication, marketing and sales, some of the most promising trends are illustrated by social media. These are used by makers in innovative ways, not only for communication, information exchange and customer relationship management, but also for learning purposes and for marketing and selling their products. Another trend sees the emergence of various e-commerce models, ranging from online marketplaces and online concept stores to sales via makers' personal websites.

Furthermore, several trends are mapped related to opportunities for skills-expansion among both professional and amateur craftspeople (including through United Kingdom and Romanian case studies). Digital technologies are shown to increasingly open the craft sector to amateur craftspeople or persons with mixed skills, some of whom may take crafts as a second profession or later in life. For all practitioners, the digital age requires an acquisition of new skills, related to new craft technologies as well as to online communication and sales.

Chapter 5 analyses, from two case studies, how the transformation of physical places impacts on the relationship among administrators, citizens, civil society and the economic sector, but also how digital communication supports dialogue and exchange related to the cultural heritage objects, namely physical landscapes and monuments.

Two key questions are asked within the investigations and interviews summarize the objectives of this chapter: “To what extend does the chosen project imply digital technologies, social media, 3D presentations, GIS mapping etc.?” and “Does the use of these technologies support and increase the dialogue and exchange between administrations, citizens, civil society and the economic sector?”

Both case studies deal with cultural heritage objects that were revitalized to become widely known and influential places of art, culture and media. Both were sort of “forgotten places” before the restoration process started. Without the extensive use digital media within planning, mainly for information and communication purposes, both places would not have become what they are now – a few years after the end of the restoration processes: widely known, accepted accumulation points of cultural and social activities where the cultural heritage-aware architecture is convincingly interwoven with the latest function of the site.

One of the objects of this investigation is the old district of Hamamönü, located in Ankara, Turkey. The district was restored with the purpose to rebuild and revitalize a place that was popular and important in the 19th century, but remained desolated and forgotten from the 1970s onwards. The main idea behind restoring this witness of a glorious trade and production past was to create a place where one feels like visiting.

The other case study is the recently (2012-2014) refurbished modern art and media centre FRIEDA 23, located in the inner city of Rostock, Germany. It is owned and operated by a specially established shareholder community (KARO gAG) that comprises of several cultural players that jointly planned and financed the refurbishment process over a period of 10 years in a process that is unique in the city so far. Public involvement started with the KARO gAG asking the citizens of Rostock for support already with the construction project by selling shares in the place to everybody interested in. By now, they are not only the operators, but also the residents of a newly made building that was designed to meet the latest requirements to cultural and artistic work i.e. provides office space, ateliers, a cinema, computer facilities, cafés and seminar rooms for working in networks and acting as a part of the local cultural or urban community.

For both case studies, the preparation and planning stage was characterized by informing the wider public in both cases. Websites and social networks were important digital tools here. With the start of the restoration itself, ongoing information about the progress to keep the public emotionally involved took place in Rostock as in Ankara.

Chapter 6 maps the *context of change in which performance-based cultural heritage, mainly dance, theatre, musical theatre and opera, is managed*, instantiated, transmitted, distributed and received by audiences. It is focusing on the impacts of digital technology and seeks to identify trends, challenges and opportunities associated with their use and integration. The study examines the impacts of digital technology across different facets of the performing arts field of practice, including changes at managerial and organisational level, as well as innovation in the art form, the creative process, and shifts in transactions between artists and audiences.

The influence of digital technologies on the performing arts field is firstly characterized by a pronounced tendency towards interdisciplinary, cross-sectorial and trans-national collaborations enabled by faster, cheaper and more largely available communication tools.

Second, the field experiences an increased hybridity in art forms, professional profiles and cultural spaces which challenges the perspectives, methods and approaches of art-making and tends to result into transition towards multiple roles being merged in one person, like that of educators, practitioners and directors. This further affects requirements for qualification profiles and demands ongoing skills update.

The study identifies as well a series of positive impacts of digital technologies on employment. Digital business models for the performing arts (using Spanish and United Kingdom case studies) are some of the most promising developments afforded by digital technologies, yet at present they are embraced by only a handful of professionals and organisations.

Significant benefits brought by digital technologies are identified in the field of performance management and organisation, where digital technology enables more efficient internal workflows and cheaper or even free opportunities for communicating and disseminating events, selling tickets, managing online donations etc. The web and social media in particular provide fast and cheap ways of reaching and engaging audiences. Furthermore, they create new opportunities for preserving performances, and in many cases the traditional boundaries between documentation, communication, preservation of performances and audience education are blurred, as the same digital content can be repurposed and used to meet different goals. As in the previous chapters, this investigation indicates eroding boundaries between spectator and creator due to increasing opportunities for interactivity and audience participation in either the creative or the performative process.

Technology also affords innovation, in the art form and the creative process. The field is characterized by increased experimentation with digital technologies to create new forms of performance by integrating different kinds of digital technologies, from augmented reality to motion capture and motion sensors. However, this research points to several issues raised by digital technology-enhanced performing arts, which are, compared to the traditional forms, often time-consuming, expensive and difficult to sustain. Furthermore, truly ground-breaking creative work requires a joint sensibility and knowledge of the art form, doubled by knowledge of technology and appropriation of its vocabulary and language. For this purpose, collaborations between artists and technical people in projects, labs or workshops show some of the most promising outcomes.

Throughout all these five topics, quite diverse in their approach towards working with cultural heritage, the social and economic impacts of the digitization processes and trends are considered – the concluding chapter considers these findings and presents areas of commonality within the context of change and provides some recommendations for the cultural heritage sector on topics to concentrate on within the social discourses over the coming decade.

Chapter 1: Introduction

1.1 Background

The social and economic impact of digitisation on society has implications not only on the life of the individuals and institutions, but also on the cultural heritage sector as a whole. This deliverable considers the context of change and the way that society is changing, including as a result of digital advances. Over the past two decades, technological developments, such as innovative hardware and software, fast-expanding network technologies, mobile devices, information retrieval channels, interactive multimedia, the rise of social media and open source movements, had a great economic and, above all a social impact on our lives. They have radically changed the way we find and receive our information, the way we live. Learn and most importantly, how we communicate. In a recent newspaper article, opinion analyst Renate Köcher states that most people are still unaware of the changes that deeply affect the need for information, opinion formation and social discourse.

Today, most European citizens are using the Internet and mobile devices. Their number is rapidly increasing. According to statistics, in 2013, 76.5% of the European citizens were using the Internet; in 2012, 48% of them were accessing the Web through mobile devices. Almost half of the users (45%) were using the Internet for their professional activity. The use of mobile Internet through smartphones, tablets and portable computers, is growing fast in Europe, as the comparison of each year's statistics shows[1].

It is difficult to imagine business, education and social participation without the use of digital media. Many services, like travel and flight reservation, are provided mainly on the Internet. Information exchange, communications and entertainment have also moved onto the Internet (Internet TV, Internet Radio, digital journalism, blogs, YouTube, Flickr, Facebook, online databases, Wikipedia, iTunes, etc.).[2]

With the development of Web 2.0, consumers became content producers (user-generated content). They engage interactively in digital spaces such as Internet platforms, forums, online communities, and social media and remix digital content. Participation grew and became part of daily information exchange. It has also created more economic collaborations, decision making and ways of sharing news and brand awareness. Business and economic relationships that are shaped over the Internet have also become an integral part of social daily life with the development of Web 2.0. Price comparisons, online shopping and bookings, product and service reviews on the Internet are affecting our everyday lives more and more.[3]

Recent analysis has presented some aspects of the impact of digitisation on German society: on social and economic life, the work environment, the media and communication. The majority of the people interviewed answered that they were experiencing major changes in their daily work.

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1 Sabine von Thenen, Petra Scheerbaum, Mobile Internetnutzung in Deutschland und Europa 2012, Statistisches Bundesamt, Wirtschaft und Statistik, Januar 2014, https://www.destatis.de/DE/Publikationen/WirtschaftStatistik/Informationsgesellschaft/MobileInternetnutzung2012_012014.pdf;jsessionid=D018CFD33835EBCF8E151A2720EFF929.cae1?__blob=publicationFile (Access: 11/11/2014).

2 Fachgruppe Internet und Gesellschaft, http://internet-und-gesellschaft.org/ (Access: 1/11/2014)

3 BITKOM, Presseinformation, Die Digitale Dekade, published 28/12/2009, http://www.bitkom.org/de/presse/62013_61980.aspx (Access: 29/10/2014)

These were affecting not only the existing working models (85%), but they were also leading to new ones in business (75%). About three-quarters of the people fear that because of the increasing use of digital devices, channels and data, the boundaries between work and leisure can become blurred, and that a nearly permanent availability will cause stress. More than a quarter of the respondents use social networks in their daily work, whereas two thirds consider communication via social media not very useful.[4]

Scientific and cultural heritage institutions and protagonists as part of our society are subject to digital structural change. How do they react to the challenges of the digital era? What are their strategies for digitisation? How can they benefit from digital technologies?

This deliverable, set within this wider context of change and transformation of social and economic practices considers five aspects of cultural heritage work, namely the following:

- Cultural Heritage held by cultural institutions and their way of holding, preserving, curating and accessing it
- Mediated and unmediated cultural heritage with focus on the relationship between living or contemporary media and what is formally considered as cultural heritage
- Cultural heritage in the form of traditional hand-making skills and knowledge and the opportunities to transfer them into advanced manufacturing sectors via opportunities provided by digitization
- The support of dialogue and exchange between administration, citizens, civil society and the economic sector related to transformations of physical spaces, places and territories
- The transformation of digitization on performance-based cultural heritage

These areas of contemporary cultural heritage work are considered, with themes identified based upon how new ways of living are transforming people's lives. Cultural heritage work in institutions is taken into account and how it is blurring with less mediated heritage, as well as those of craftspeople and performing artists who can learn and market their products. The investigation on cultural heritage discoursed in living media as well as related to physical places covers the further relevant dimension here, as technology facilitates greater democracy and enables feedback and input. The question behind these reflection is not, if digitization has positive or negative impacts on cultural heritage work. Instead, the intention behind the investigations is how to show the trends and, thus, the lessons learned from the developments so far – which indicates where potential lies and how it can be used to make cultural heritage work a topic that impacts on the social discourses of the 21st century.

4 Wittmann, Georg; Stahl, Ernst; Weinfurtner, Stefan; Torunsky, Robert: Digitalisierung der Gesellschaft 2014. Aktuelle Einschätzungen und Trends, published 01/02/2014, http://www.ecommerce-leitfaden.de/download/studien/Digitalisierung2014.pdf

(Access: 01/11/2014).

1.2 Role of this Deliverable in the Project

D3.1 – *Transformation, Change and Best Practices for CH processes* – is a significant deliverable within the context of the RICHES project. Building on the prior work which established the project's foundation through the development of a common taxonomy and identification of a stance on intellectual property within the CH sector, D3.1 is the deliverable that begins the work of the project in each of its multi-disciplinary research areas. As described within the Description of Work (DoW), virtually all areas of the project's work build upon the platform developed within the tasks of work package 3, with later deliverables elaborating upon the introduction provided within this document.

Although there are easy links to be made between chapters of this document and future deliverables such as craft skills, libraries/museums and co-creation, there is much greater interrelation between tasks, with deliverables from later work packages picking up from the points made here and further developing them in deliverables covering identify, places, communities, fiscal issues and institutions opening up of content for creative re-use. These cross-references permeate this deliverable, as they should, within a document that outlines the debate within a project that takes an integrated approach to CH; specifically in this instance considering the context of change.

1.3 Approach

This deliverable is unlike any of the others within the RICHES project. It is a single deliverable that represents the work of five separate tasks and therefore offered an interesting challenge as to how partners should approach it.

For deliverables that are based upon a single task, albeit with contributory case studies, a common methodology it drawn up so that everything fits well, but is that the best approach for a deliverable comprising multiple tasks?

At a relatively early stage of the project's work, it was decided not to provide an overarching structure for this deliverable and to let each task forge its own pathway independently of the others in terms of methodology, approach and style, to see where it led and then to bring together all chapters and identify commonalities of themes and issues. This comparative discussion took place at the RICHES Project Board meeting in Ankara in May 2015, with the Work Package 3 Leader from Rostock and COVUNI Project Manager evaluating contributions to draw conclusions.

The research itself was undertaken using a combination of approaches including desk research, surveys and focussed interviews. Further details of methodology are provided with each of the chapters.

1.4 Structure of the document

Given that the component parts of the deliverable were structured after the research was completed, it has been decided not to present them strictly in the order of the DoW, but to swap two over for a more natural narrative.

The deliverable therefore begins with the institutional perspective and the context of change within museums and libraries. It acknowledges the significant changes made over the past 20 years, but how technological change and public expectations continue to move the goal posts, as institutions consider the implications of making their content available online. Although their roles are changing, they still make significant contributions to their communities, both socially and educationally, as content can be used to provide more interactive and vivid learning experiences.

The advantage of the approach taken to this deliverable is that chapter two provides a sharp contrast in viewpoint and alongside acknowledging the mediated role of CH institutions, considers the view of the wider public and how they use culture and their heritage. The advances in technologies have given young adults the opportunities to be creative and with the freedom from the constraints of time and preservation quality of institutional curators, they have a very different perspective on the world and what can be achieved.

The third chapter builds upon this unmediated approach, but within the craft sector. In the same way that people can use new technologies creatively, they can also be used to learn craft skills online through dedicated communities, speed up processes and to easily create brand awareness. Rather than the general perception that technologies will cause craft skills to become outdated, through a blended approach, they become more relevant and enable traditional heritage to be maintained, enabling hobbies to be translated into small businesses through the ability to quickly reach a wider audience.

Reaching an audience quickly is an important theme of the next chapter, as the transformations of the Frieda 23 building in Rostock and the district of Hamamönü in Ankara have benefitted from technologies to both interact between administrator, civic society and also the general public. Through websites and social media, people were able to comment in a way that had not been possible which added a whole new dimension to the shaping of the projects and established templates for the future.

The final case study also incorporates the themes of its predecessors; through the context of change in performance based cultural heritage had significantly transformed practices. Sharing messages with audiences is enhanced and feedback is quickly gathered, as performers and organisations can shape and amend their brand. Here there is also the chance to experiment in an unmediated fashion with new styles of performance and also to preserve performance as future heritage.

There are clear areas of overlap, but also differences between the five areas, all of which are transforming society and the lives of people; the coming chapters will example this context of change further.

Chapter 2: The context of change in which CH is held, preserved, curated and accessed

2.1. Introduction and methodology

The overall intention of this chapter is to investigate how cultural institutions have adapted to a changing world. The research explores how digital technologies are impacting on the curation and preservation work of memory institutions, by means of desk research, surveys and focused questionnaires. Focusing on the issue of access, the research will provide a breakdown and analysis of the following:

- who are the users of libraries and visitors of museums, and what their respective requirements are in terms of information and services
- how they may be changing
- how the various CH institutions (national, public, research and private) are now implementing systems to manage the different types of data (bibliographies, e-books, online catalogues, digital libraries and metadata records etc.) in order to respond to current and new user demands
- information retrieval channels and the role of digital and multimedia channels.

In order to understand how the traditional practices of cultural institutions are or need to be transformed by digital practices, this chapter presents a summary on the use of computers in cultural institutions. This is an important factor in the process of digitisation, since the introduction of computers has made possible the development of digital tools and services by (and for) the cultural institutions. It also allows drawing some conclusions on the computer knowledge of the institutions' staff through the time. As examples, two case studies were included: German museums and Turkish libraries followed by a more general outline of the state of digitisation in European cultural institutions.

2.2 Overview of the Digitisation process in European memory institutions

2.2.1 The 21st century use of computers in German museums

By 2001, more than 73.8% of German museums (3,211 out of 4,364 museums) indicated in a survey conducted by the Institute for Museum Research that they were using the internet for presenting their institution. According to the survey, 1,537 museums had already set up a website, whereas 1,684 museums were presented only on an external website not directly managed by their institution, but instead by their municipality or other governing authority.[5] These websites provided only basic information such as address, opening hours, entrance fee as well as a general description of the museum´s activity and collections. Only 3.7% of 1,537 German museums were referring to their object database on their official website.[6]

[5] Institut für Museumskunde (SMB-PK), „Materialien aus dem Institut für Museumskunde", Issue 55, Statistische Gesamterhebung an den Museen der Bundesrepublik Deutschland für das Jahr 2001 (including an English summary). Berlin, 2002, p. 53.

[6] Ibid., p. 54.

However, this reference to the object database did not provide direct external access to the digitised objects. The websites were developed by internal staff or external companies, but maintenance of the websites had been conducted mainly internal at that time.[7]

Another survey was conducted with German museums in 2004 revealed that digital media formats stored by museums, text files (86%) were the most common data files, followed by digital image files (73%). Other media formats, like digital video or audio files (15.4%) were the exception.[8]

Similar surveys about aspects of computer usage in museums and the online presentation of German museums were conducted again in 2008 and 2013. They have shown that less than 10% of German museums[9] did not have a website then and by 2013 this had reduced to 8%[10]; these were mainly for smaller museums with less than 5,000 visits per year. Furthermore, according to the survey of 2008 and to 2013, museums preferred to present themselves on their own websites, but they were also more frequently participating in online cultural heritage portals.[11]

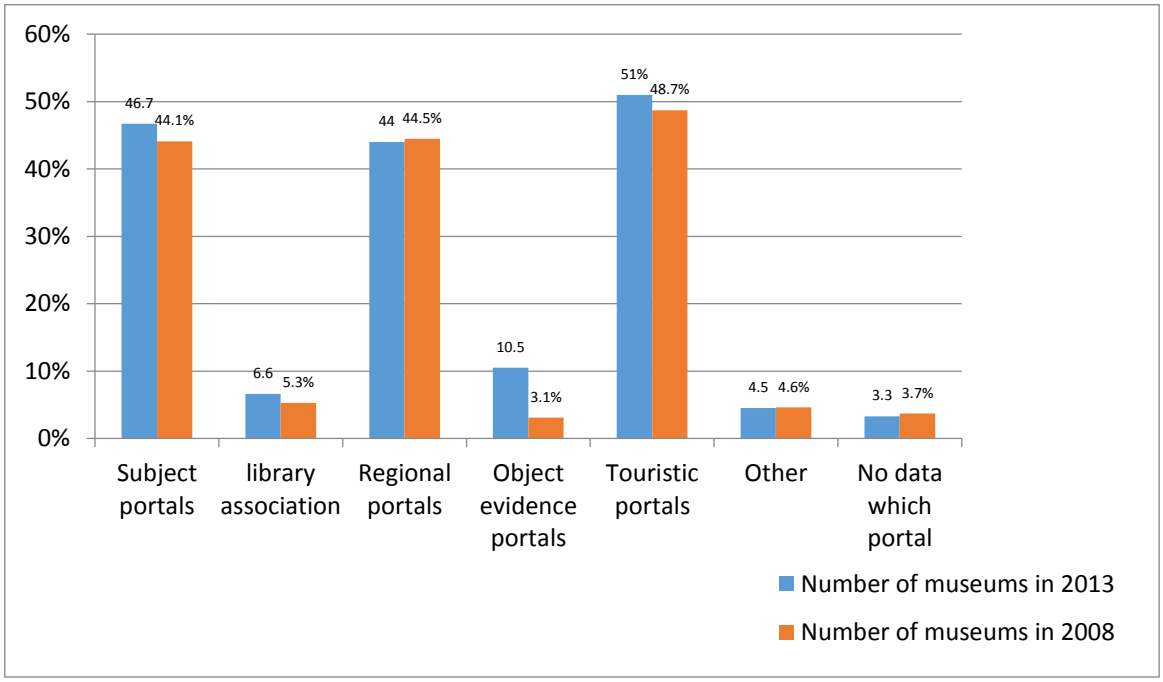

Chart: Presentation at „bridging websites“[12]

[7]Ibid, p. 55-56.

[8]Witthaut, Dirk; et al.: NESTOR – Digitalisierung und Erhalt von Digitalisaten in deutschen Museen, 2004, p. 31 (http://files.d-nb.de/nestor/materialien/nestor_mat_02.pdf (Access: 3/11/2014).

[9] 402 out of 4,345 museums that replied to the questionnaire in 2008

[10] 265 out of 4,303 museums that replied to the questionnaire in 2013

[11] Institut für Museumsforschung (SMB-PK), „Materialien aus dem Institut für Museumsforschung“, issue 63, Statistische Gesamterhebung an den Museen der Bundesrepublik Deutschland für das Jahr 2008 (including an English summary), Berlin, 2009, p. 45 | Institut für Museumsforschung (SMB-PK), „Materialien aus dem Institut für Museumsforschung“, issue 68, Statistische Gesamterhebung an den Museen der Bundesrepublik Deutschland für das Jahr 2013 (including an English summary), Berlin, 2014, p. 51

[12] Source: Institut für Museumskunde (SMB-PK), Statistische Gesamterhebung an den Museen der Bundesrepublik Deutschland für das Jahr 2013, „Materialien aus dem Institut für Museumskunde“, Issue 68, Berlin, 2014 | Institut für

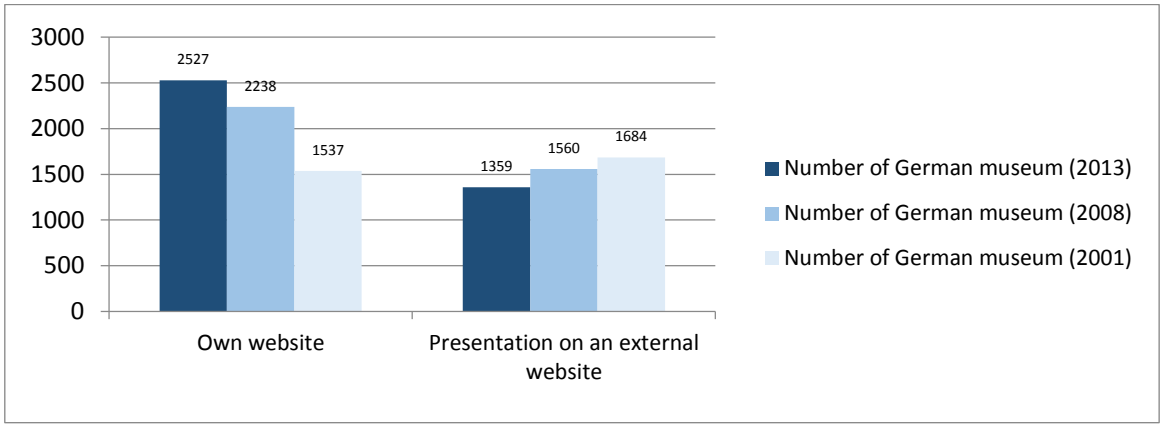

Chart: Number of German museums with own and external website in 2013, 2008 and 2001[13]

By 2008, a greater number of museums regularly updated their websites with new texts and images relating to the objects of their collections.[14] Moreover, the websites were more complex and offered more information, contact addresses, such as email addresses and later on contact forms were more often an integral part of a museum's website.[15]

In 2004, 1,044 German museums holding digitized collections or planning to start digitizing their collections were surveyed about purpose and function of these digitized materials. It proved that the digital documentation of their collections was considered as the most important factor (79.8%) for the creation of digital data. Dissemination of information about their collections (67%) on the internet as well as management of images (56.6%) was considered slightly less important.[16]

It also became apparent that in response to public demand, content was also made available through portals that that provided a one stop shop for users who were searching for specific thematic results.

In summary, computers have increasingly found their way into German museums, being used for collection documentation, image management, archives, administration and web presence. The first websites provided basic information about the museum, its collection and exhibition - mainly for the museum's public relations.

Museumskunde (SMB-PK)

[13] Sources: Institut für Museumskunde (SMB-PK), Statistische Gesamterhebung an den Museen der Bundesrepublik Deutschland für das Jahr 2013, „Materialien aus dem Institut für Museumskunde", Issue 68, Berlin, 2014; Institut für Museumskunde (SMB-PK), Statistische Gesamterhebung an den Museen der Bundesrepublik Deutschland für das Jahr 2008, „Materialien aus dem Institut für Museumskunde", Issue 63, Berlin, 2009; Institut für Museumskunde (SMB-PK), Statistische Gesamterhebung an den Museen der Bundesrepublik Deutschland für das Jahr 2001, „Materialien aus dem Institut für Museumskunde", Issue 55, Berlin, 2002

[14] Institut für Museumskunde (SMB-PK), „Materialien aus dem Institut für Museumsforschung", Issue 63, Statistische Gesamterhebung an den Museen der Bundesrepublik Deutschland für das Jahr 2008, Berlin, 2009 p. 50 http://www.smb.museum/fileadmin/website/Institute/Institut_fuer_Museumsforschung/Materialien/mat63.pdf (Access: 17/11/2014).

[15] A new survey on the websites of museums, most particularly their functions and the media used, was conducted by the Institute for Museum Research in 2013 („Funktion und Medien der Internetpräsentation"). The results, published in December 2014, will be presented in the RICHES project.

[16] Witthaut, Dirk; et al.: NESTOR – Digitalisierung und Erhalt von Digitalisaten in deutschen Museen, 2004, p. 19 http://files.d-nb.de/nestor/materialien/nestor_mat_02.pdf (Access: 03/11/2014).

The most popular function (around 56%) was online booking of guided tours and group visits, but later on, the websites of the German museums contained more detailed object information. Large museums began to develop their own websites which have continued to be repurposed.

In 2004, most museums used the internet for public relations and didn't maximise the functionalities and opportunities available to them. Later researches showed that, especially larger museums now provide extended offers via the internet, particularly online reservations (56.2%). Still, 20.7% of the German museums publish an electronic newsletter. Approximately one third of German museums have a Facebook account and 8.6% communicate via Twitter.

2.2.2 The Use of Computers in Turkish Libraries

In addition to its general library functions, the Turkish National Library contributes to the Turkish culture, science, literature and art activities as national archive, museum and research center. It has a collection comprising of 3,157,761 works that include books, printed works, rare manuscripts of art, printed work with the Arabic alphabet, daily newspapers, magazines, bulletins, annuals, posters, maps, musical notes, audio-records (CD and tape) and pictures, etc.

THE COLLECTION	
TYPE	
Printed Materials	1,360,512
Old Letter Alphabet Turkish Books	56,596
Manuscripts	27,493
Serials	1,490,981
Non-book Materials	222,179
TOTAL	3,157,761

Users	637,832
Members	235,524
Web usage count for Online Services	785,741

Chart: Collection and user statistics, 2013[17]

From the 1990s, the use of computers within libraries became more widely accepted within universities and public institutions. However, it was not until the 21st century that home usage became more widespread.

[17] http://www.mkutup.gov.tr/tr/Sayfalar/Hakkimizda/Istatistikler.aspx

Information Statistics, 2004-2014

											%
	2004	2005	2006 (*)	2007	2008	2009	2010	2011	2012	2013	2014
ICT Usage in Enterprises											
Computer Usage	-	87,8	-	88,7	90,6	90,7	92,3	94,0	93,5	92,0	94,4
Internet Access	-	80,4	-	85,4	89,2	88,8	90,9	92,4	92,5	90,8	89,9
Having Website	-	48,2	-	63,1	62,4	58,7	52,5	55,4	58,0	53,8	56,6
ICT Usage in Households and Individuals											
Computer Usage (Total)	23,6	22,9	-	33,4	38,0	40,1	43,2	46,4	48,7	49,9	53,5
Male	31,1	30,0	-	42,7	47,8	50,5	53,4	56,1	59,0	60,2	62,7
Female	16,2	15,9	-	23,7	28,5	30,0	33,2	36,9	38,5	39,8	44,3
Internet Usage (Total)	18,8	17,6	-	30,1	35,9	38,1	41,6	45,0	47,4	48,9	53,8
Male	25,7	24,0	-	39,2	45,4	48,6	51,8	54,9	58,1	59,3	63,5
Female	12,1	11,1	-	20,7	26,6	28,0	31,7	35,3	37,0	38,7	44,1
Households with access to the Internet	7,0	8,7	-	19,7	25,4	30,0	41,6	42,9	47,2	49,1	60,2

TurkStat, (16-74 age group)

*The surveys were not conducted in 2006

Use of Information and Communication Technology (ICT) in Enterprises, Use of Information and Communication Technology (ICT) in Households and Individuals (Source: Turkish Statistical Institute)

National Library Online Services	Sufficient %	Partially %	Not Enough %	No Idea %
Online Catalog Search	62,00	15,00	15,00	8,00
Online Research (articles etc.)	38,00	50,00	0,00	13,00
Online Book Supply Service	30,00	30,00	30,00	10,00
Access to Manuscripts	33,00	22,00	44,00	0,00
International Inter Library Loan Services	60,00	0,00	20,00	20,00
Free Wi-Fi Access	70,00	20,00	0,00	10,00
Online Database Research	25,00	50,00	13,00	13,00

Chart: User feedbacks related to the survey in 2013 on the quality of different digital library services[18]

The Turkish Ministry of Culture and Tourism is responsible for maintaining, developing, disseminating, promoting, evaluating and adopting cultural and historical assets that include public libraries and Turkish National Library.

Public libraries in Turkey are linked with the Directorate General of Libraries and Publications. The department Directorate General of Libraries and Publications of the Ministry functions as a senior management for all public libraries in Turkey. At present, there are 1,128 public libraries connected to the directorate.[19] As seen in many countries, the Ministry has taken this lead role to bridge the gap for the public, where they do not have access to computers and the internet and to support the increase in digital literacy which threatens to exclude a considerable percentage of its population.

[18] http://www.mkutup.gov.tr/tr/SiteAssets/Sayfalar/Hakkimizda/Istatistikler/KULLANICI_SORU_FORMU.doc

[19] http://www.kygm.gov.tr/TR,9/istatistikler.html

Figure: The National Library of Turkey

The computer usage in public libraries started in 1991, although, there are no reliable inventory records available from that time. What is documented is that there were 378 computers, which provided services in 147 public libraries in 2002. From the 2000s to present, a continuous increase of ICT hardware and software in public libraries can be observed. The provision of internet services in the libraries started at the end of 1990/in the early 2000s by which time 50-60 public libraries used library automation systems. A few years later, in 2005, free internet services for citizens were available within 81 libraries, a number that increased to about 300 by 2010. At the present time, there are 361 Internet access points with 5,284 computers in total.

The development of the automation system National Library was started in 1991 and two years later undertook the important mission to transform the analogue system of the National Library to digital. In 2013, the website of the National Library was re-coded and designed in response to related content and design analyses.

The survey implemented among users of the National Library on digital services in 2013 provided interesting results. From a total of 637,832 users, 56% are between 20 and 29 years old and 44% are 30 to 39 years old. No users older than 40 were identified here in first period of 2013. The survey made clear that the user needs related to computer technologies have not been fully satisfied so far. Due to the results of this survey, the Turkish National Library completely revised and updated all its digital services in 2014.

ICT Technologies in National Library	Sufficient %	Partially %	Not Enough %	No Idea %
Computers	50,00	42,00	8,00	0,00
Internet Connection Speed	43,00	21,00	29,00	7,00
WI-FI	31,00	23,00	31,00	15,00
Website Content	40,00	50,00	10,00	0,00
Website Update	46,00	31,00	23,00	0,00
Links	55,00	36,00	9,00	0,00
Database access, usage	55,00	27,00	9,00	9,00
Guidelines for Usage	47,00	27,00	20,00	7,00
Helping Personnel	45,00	18,00	36,00	0,00
Up-to-date material in databases	46,00	15,00	31,00	8,00

Chart: Different ICT services available in Turkish libraries and the related user assessment[20]

Although 38% of users assessed the online research capabilities as sufficient, the survey and the statistics are inversely proportional. There, 9,974 members logged into the system who used 58,493 unique sources. Digital serials and Periodicals System provides free access to all digitized material / articles / sources to National Library Member Users.

Both of the case studies demonstrate the penetration of museum and libraries by computer technology. This began slowly and was more inward oriented at the beginning, as institutions faced and overcame new challenges. With the internet and other means of electronic communication becoming more available and used by a greater number of people and the resultant demand for access, the cultural heritage institutions began to orient their use of computer technology more outwardly, taking more into account user expectations and needs. That these showcases are in no way singular is confirmed by a statement of Jens Thorhauge, the Director General of the Danish National Library Authority, made in the foreword of a conceptual paper titled “Nordic Public Libraries in the knowledge society”:

> *“Like in other parts of the world Nordic public libraries have been subject to the transition movement characterized as a shift of paradigm, because a number of basic work methods, values and organization models have changed radically. You can observe several steps in this transition movement, but two are particularly significant: beginning with the introduction of databases and OPACs in the eighties, and the breakthrough of the Internet in the mid-nineties, where seamless library services and the hybrid library concept came within reach.*

[20] http://www.mkutup.gov.tr/tr/SiteAssets/Sayfalar/Hakkimizda/Istatistikler/KULLANICI_SORU_FORMU.doc

Over the past ten years Nordic public libraries have been busy developing new – in particular digital – services within that context. Likewise a strong movement to improve systems and infrastructure has worked. Last, but not least, libraries have been working on branding and promotion of services in a way that indicates that libraries are struggling in a new social and political context."[21]

2.2.3 Digitisation in European cultural heritage institutions

Databases, internet, internal and public facing use of computer technology, modernized services, thus it is no wonder that digitisation of cultural heritage objects has become a major concern of many European cultural heritage institutions. "Digitisation" refers to the process of transforming analogue (physical) data to digital data.[22] Digital data can be represented, processed and stored in an electronic form. The transformation of analogue objects to digital objects can help to protect the physical objects from hazard and decay. Cultural heritage digitisation is very important for allowing retrieval and access to the resources without limitations of place and time. In this way, digitised heritage can be preserved for future generations.

A recent study conducted by the European project ENUMERATE gathered information on the state of digitisation of cultural heritage items in European cultural heritage institutions. Nearly 2,500 institutions took part in the surveys that were carried out in 2012 and 2014. The study has shown that many cultural heritage institutions are digitizing their collections. According to estimations, a percentage of 20% of the analogue European cultural heritage collections will be digitized by the year 2014 and another 57% will still need to be digitised. In the eyes of the participating institutions there is no need to digitize the remaining part (23%). Of course, one must consider that the requirements for digital objects, as well as the standards are constantly developing and changing.

[21] Danish National Library Authority, Nordic Public Libraries in the knowledge society, Copenhagen 2006

[22]This is of course only one of many possible definitions. This recent one is taken from a Deliverable (D2.1) of the European project RICHES (www.riches-project.eu). It is accessible at: http://www.digitalmeetsculture.net/wp-content/uploads/2015/02/RICHES-D2.1-CH-Definitions-and-Taxonomy_public.pdf(accessed 13/04/2015). In her thesis Trilce Navarrete takes a broader view: "The concept of Digitisation is difficult to define, notably because its interpretation has changed continually […] . In general, Digitisation involves the application of digital tools (e.g. computers, databases, networks). More specifically, the digitisation of a museum can be defined as a three-fold process: the incorporation of digital tools in the museum's work methods, the creation of digital versions of its objects and object-related information, and finally the creation of a presence on the Internet (and through other digital modes of communication such as apps) that potentially might evolve into a full-scale digital equivalent of (if not a substitute for) the museum." Navarrete, Trilce. "A History of Digitisation: Dutch Museums." Amsterdam 2014, p. 1

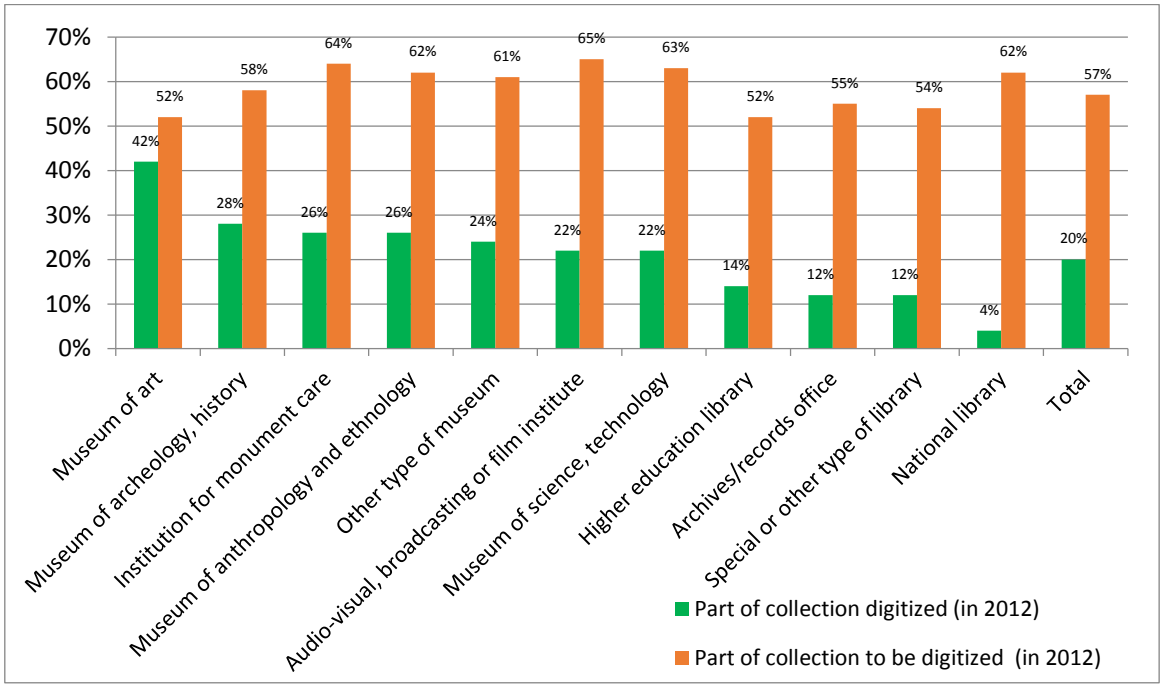

Chart: Part of collection, which is digitized or needs to be digitized (Source: ENUMERATE)

The chart reflects the description above regarding the increase in digitisation of both German museums and Turkish libraries, although the variety of their structure and type of collection demonstrated the need to not consider museums as a single entity.

It has also become clear that European cultural heritage institutions have to keep analogue objects as well as digitized and born-digital objects[23]. More than one third of the European cultural heritage institutions have a digitisation strategy (in any form)[24]. Such strategy often defines the public access as an aim, but only 85% of these institutions still use web statistics to measure the use and access to their digitized objects.

In the surveyed cultural heritage institutions, there are on average 3.3% of paid staff working full-time on digitisation. On the basis of the ENUMERATE Core Surveys, it is estimated that the digitisation of the European cultural heritage will take at least until 2040.

This is also a challenge for policy makers, as until the ENUMERATE study, they struggled to quantify the number of items within collections that need conversion and therefore the budgets that should be allocated. This is especially true, as the playing field continues to change, given that the initial exercise was only to create an inventory of objects, but through advances in technology and public demand, high quality (3D) images where sought for creative reuse and sharing.[25]

[23] Illustrated by LIMA in the Netherlands http://www.li-ma.nl/

[24] Evaluation of the ENUMERATE research and exploration of institutional digitisation strategies is explored further in RICHES deliverable D5.3 – Fiscal and economic issues in the digital age

[25] Trilce Navarrete "Adoption of computers in Dutch Museums: interpreting the new tool"

2.3 Impact of digital technologies on the work of cultural institutions in the fields of curation, preservation, access and dissemination

2.3.1 New working processes and professional requirements

Although digitisation brings new opportunities, cultural heritage institutions are also facing challenges. Digital technologies require specific knowledge and, in addition to the analogue collection, a digital collection also has to be created, managed and preserved. Digitisation can make the work processes of cultural heritage institutions simpler and more successful only if employees are able to use new technologies and software and possess the special knowledge needed for managing analogue as well as digital collections.

The need for technical knowledge and knowledge of technical exchange will engage the employees (professionals of library services, museum curators and archivists) via databases and online publications. In many cases, the knowledge of how to use the new digital technologies has to be acquired and extended. Employees of cultural heritage institutions will communicate with colleagues electronically to identify problems, analyse and finally solve them. With mobile devices, they will have to carry out electronic diagnosis and fault rectification in the field of conservation and restoration. The generated solutions to problems related to digital technologies can be fed back into a common pool of knowledge from which professionals, who face similar problems, are able to learn.

The exchange and sharing of knowledge among professionals will form an essential feature of modern expert and specialist work. Technological developments will continuously affect the nature of work, education and training of cultural heritage professionals. However, the sharing of knowledge between CH professionals is lacking and the full potential of exchange is not fully realised.

Moreover, a continuous re-evaluation of institutional digitisation strategies is necessary in order to ensure quality. With the help of digital media, quality standards have to be developed that enable learning and working results. As there is an ongoing paradigm shift for participated learning, it is important that the focus should be placed on the use of digital media. Nevertheless, this excludes institutions that do not face these changes of individualized independent research, learning and opportunities exchange. The visualization of complex and abstract information can provide new opportunities for employees in the cultural heritage sector, as well as, for their visitors.

2.3.2 Evolving requirements for digital tools

One of the fundamental changes that the digital revolution has brought about is the possibility of cooperation across and between institutions by use of automated processes implemented in software. However, this did not happen over night and is the result of processes of increased communication, a levelling of concepts and of increased standardization.

In analogue times, there was a necessity of standardization in milder forms, e.g. the use of filing cards of a certain size – otherwise it would have been very complicated to obtain adequate cabinets for storage of information. Still, even then cultural institutions were free to use different sizes of filing cards for different purposes.

In Germany, libraries had to decide which alphabet they wanted to use for their card catalogue (e.g. modern standard German or Prussian) and it was not uncommon that a departmental library (as part of a central library) presented its public filing-card catalogue in another alphabetical system than the central university library. In the choice of means and tools, of workflows (and even of alphabets) there was a great freedom for cultural heritage institutions and even for single parts of them.

What changed with the advent of digital technology? The computers came to the institutions step-by-step. One possible first entry point was the digitisation of the administration of the cultural institution as an institution (e.g. management of employees etc.). Another entry point was the digitisation of certain departments (administration of certain collections in museums or of a certain departmental library of a university library …). A third entry point was the digitisation of the central services administering the ingestion of new content (objects, records and books etc.) into the cultural institution. Wherever the digitisation had its gateway – it often depended on the likes and dislikes of the persons responsible in the institutions. As with all change, the process was initially led, and new technologies adopted, "by enthusiastic individuals who saw a future in the promise of remote access to collection information."[26]

In museums, especially in larger institutions, a regular occurrence was for one department to introduce a database and then later another department introduced their own using different software for the administration of information regarding the museum objects that they were caring for. Nevertheless, with digitisation it became obvious that greater standardization was a necessary improvement (and further still with the arrival of external thematic portals). Increasingly, museums are following the principle to migrate their (many) data into one central database used by all curators of all departments, administering new acquisitions and restoration reports at the same time. In this respect, digitisation changed (and is changing) the communication and cooperation inside the institutions – but it changes more than this:

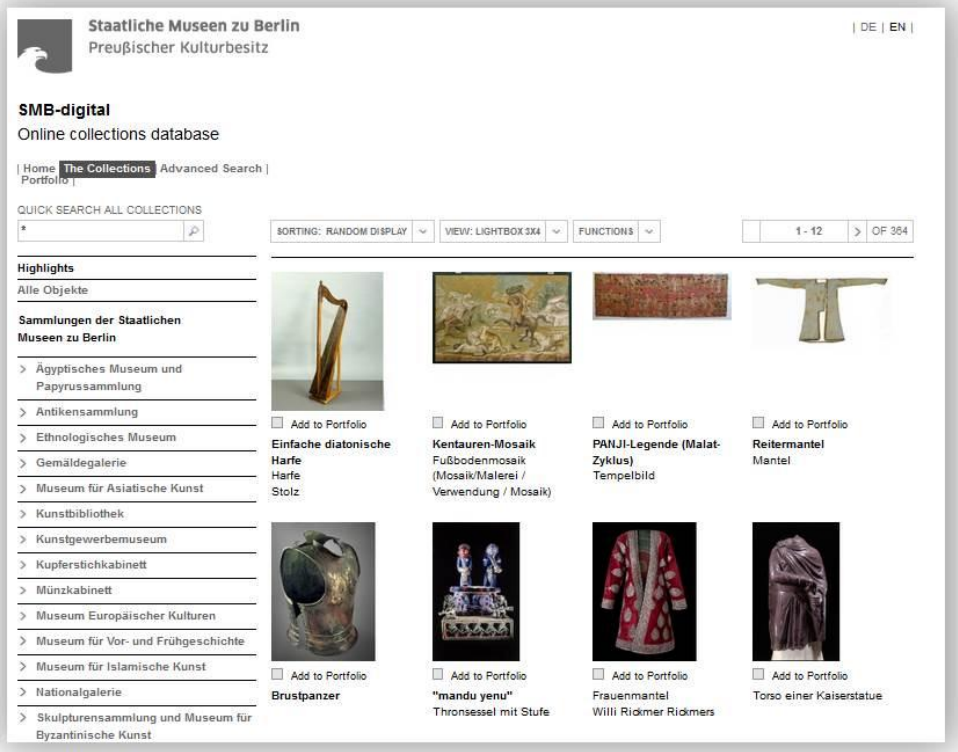

Figure: Image of the SMB Online Collections Database

[26] Trilce Navarrete "Adoption of computers in Dutch Museums: interpreting the new tool"

The curators who had their own database in their own department had to make compromises and had be satisfied with more general database solutions. The growing cooperation through digital tools influences the freedom of the single department and ultimately leads to compromises and to cooperation; the movement towards the "one-institution – one-database" option.

The rule was to create object images that incorporated a controlled colour bar (for calibrating the monitors to show the "real" colours) and the inventory number on a piece of paper. The images were considered good if they offered the possibility to recognize the object that should be on it. This tendency had – at least in museums – a second step: With digitisation projects and the possibilities offered by technological development to easily obtain images of higher resolution, institutions began to adopt the idea of creating and storing master files for their images and binding downsized copies into the database. Still today, some software products used in museums have sections called "multimedia module" which shows that they were a later intervention. In the long run, this tendency leads to the need of some form of Digital Asset Management Systems and raises the question of digital preservation. This tendency to incorporate visual markers came first to museums but now also library catalogues (online-versions) include additional visuals (e.g. covers) of books. Also this tendency differs from department to department and institution to institution, some institutions are very much advanced, others still use image-free tools.

The "one-institution – one-database" concept had influenced the image integration into the tools by forcing (or demanding) images in certain formats and sizes. With curators from different fields of knowledge working together at the same database, there was another push towards standardization: What to record? How to record the information? Cross-departments and cross-museums rules had and have to be agreed upon.

Cultural heritage institutions are in one way or another working for the public good. They serve the public (or segments thereof) in different ways, e.g. lending books or teaching and inspiring through exhibitions or providing access to documents. As a result, digitisation began to have an impact, as libraries opened their digital catalogues (or parts of them) to visitors by putting computers in special rooms; after some years of transition the filing card cabinets disappeared. This change necessitated a system that everyone was able to use without first attending a training course. In museums, "using digital technology to get into interaction with customers" was slightly different: as in libraries' screens and computers were incorporated into exhibitions, but what was shown was usually contextual to an exhibition and especially prepared for this use. Opening the museums object-database to visitors was very rarely the practice.

So far, all developments and tendencies described were happening inside the institutions (or with visitors who were physically inside the institution). With the advent of the Internet which has increasingly becoming the main (and for many the sole) source of information, cultural institutions began to open their databases to satisfy the needs of their "users" and to be visible in this important medium. Conceptually, this was a minor step for libraries: the digital catalogues publicly available in the institution were transferred to the new medium. For museums the situation has been different because the databases they keep were most often conceptually intended only for use by the institution's own staff. These databases contained a great deal of information that was never intended to be made public and there was no easy solution to separate this "to-be-hidden" information from others that might be shown to everyone.

Furthermore, the curators filled the databases with the idea in mind that only they and their colleagues might use it – resulting in object-descriptions with a lot of abbreviations and technical vocabulary only intelligible to specialists, and resulting in the above mentioned "draft photographs" as object representations bound to the database.

Communication with the public has a very different meaning for libraries and for museums. While the first offer a catalogue (and later digital copies bound to the catalogue), the museums offer edited information (in forms of exhibitions). The idea of opening up the databases was (and still is) alien to many museums. Nevertheless, more and more museums started publishing object information on their websites (using tools like content management software) but this was done only for a selection of the objects (e.g. "highlights" of the collection) with heavily edited descriptions.

Nevertheless, the trend, backed by the libraries, to publish digital catalogues on the Internet also intruded the museum-world and increasingly museums started to open their databases. This not only required the databases to be internet –ready (by enabling them to distinguish between publishable and not-publishable pieces of information), it also required population of the databases in different ways and creation, use and connect to the database photographs with "publication quality". Making the object-databases internet-ready could either mean building or buying new software or buying additional modules for Internet-publication. The software tools began to change, and more of them became – in one way or another – "Internet ready".

Many museums still do not use databases, but use filing cards instead. Of those museums that have databases still many have more than one database for object-information administration.[27] There is a growing number of museums with one central database used by all departments (still most often the museum library is not included)[28].Very often, these databases are not yet "Internet ready by default".

Many museums present a (very) limited number of their objects on their websites using webpage publishing tools totally independent from the museum's object database. Only some museums have public object catalogues coming directly (or via a "web module") from their database. There are already some museums, which use web-based database systems for inventarisation (i.e. object management) and web-publication of object information.

Still others use one (closed) database system while they use another database system (most probably web-based) for online publication. The situation is quite varied, manifold and every state of the mentioned development that is imaginable seems to exist in reality. In general: the trend is towards opening up the databases of museums to the public.

With the most recent advent of thematic portals, specialists' portals etc. and of more general portals, like *Europeana* or *Cultura Italia,* that were created for members of the public to find linked collections across multiple institutions, the necessity for standards became obvious. For portals, it is not so easy to integrate data from a multitude of unstructured sources, the most common situation, as described. The data-structure of the original source always has to be transformed into the data-structure of the portal. The fewer different structures that exist, the easier is for the transfer.

[27]The Dutch Rijksmuseum made an inventory in 1999. It revealed the use of 144 different information systems (or databases) (Navarette 2014, p. 33)

[28]Trilce Navarrete and John Mackenzie Owen, „Museum libraries: how Digitisation can enhance the value ofthe museum." In: Palabra Clave (La Plata), Vol. 1, No. 1 (2011), p. 12-20 Universidad Nacional de la Plata (Argentina)

In the context of the *Europeana* related Linked Heritage project, the LIDO-Format for data publication was developed with the intention that the museum-databases export data in the lido-data-structure and e.g. *Europeana* on the other hand only needs an importer for LIDO-structured-data (wherever they may come from). In the beginning the museums sent whatever data they had in any structure and the Linked Heritage Project (and its successor, the AthenaPlus project) created (and used) a tool for making LIDO-structured data out of them. In another project called *Europeana Inside* a more direct way was developed. Some larger museum-software companies that participated in the project enabled their database-software for a direct LIDO-structured export. Again, the databases were adapted to the developments. LIDO now is quite popular among all museum-software companies even if most of them still do not have implemented the function to generate LIDO-structured data-exports fully. With LIDO a new standard (related to structure of information) for data-publication is taking ground.

During the past few years, the linked-data concept and semantic web emerged. Linked Open Data (LOD)[29] refers to a way of publishing, connecting and sharing structured data or metadata on the World Wide Web, according to a set of recommended standards.[30] Although the idea of linking data on the World Wide Web is not new, the concept of LOD emerged only in 2006. Data in records or metadata about digital resources are described in a standard machine-readable format or language (Resource Description Framework, RDF) that is used for the description of objects or concepts, such as a museum object, a place, or a person, and of the relationships between them.[31] Each object or concept must be represented by a name in the form of a persistent identifier (Uniform Resource Identifier, URI). Such typed links associate data from heterogeneous systems and sources, like databases maintained by different institutions in different geographic locations that could previously not easily interoperate at a data level.

The combination of semantic technologies and Linked Data creates a 'semantic web'. It enables the implementation of a global information space, based on open standards by providing the links to explore the Web and discover other, related data.[32] Shared resources on the semantic web should be open data, i.e. data or metadata made freely available to the public with an open license in order to allow their use, reuse and redistribution.[33]

To take part in this development, even more standardisation is necessary: The common use of controlled vocabularies and thesauri. As of now, very few museum-software-products are able to dynamically integrate via Internet publicly available (and centrally maintained) vocabularies. Controlled word-lists are most often downloaded and stored locally (which makes it difficult to follow their developments).

[29] Greater detail on LOD is provided within RICHES deliverable D4.1 – European identity and belonging and the role of digital CH

[30] Linked Data Community, http://linkeddata.org/; s.v. 'Linked Open Data', Wikipedia http://en.wikipedia.org/wiki/Linked_open_data; Berners-Lee 2006; Berners-Lee 2009; Bizer, Heath, Berners-Lee 2009; Heath, Bizer 2011; Europeana, "Linked Open Data", labs.europeana.eu/api/linked-open-data/introduction, accessed May 25, 2015.

[31] Known as 'triples', comparable to the language syntax concept of Subject-Predicate-Object.

[32] Berners-Lee 2006.

[33] Among the licenses most often applied to Cultural Heritage information are Open Data Commons and Creative Commons licenses.

This might be the trend in the coming years (future generations of museum-databases) – the connection between the database and centrally controlled vocabularies via the Internet. And, again, the tools have to change.

Semantic technologies and LOD can contribute to a better understanding and facilitate access to European Cultural Heritage. Tim Sherratt expresses the expectations from their use:

> *"As historians, as Cultural Heritage professionals, as people — we make connections, we make meanings. That's just what we do. What really excites me about Linked Open Data is not the promise of smarter searches, but the possibilities for making connections and meanings in ways that are easier to traverse — to explore, to wander, to linger, or even to stumble."*[34]

Museums are now beginning to realise that a lot of information on their objects can be made available by inviting people to talk and write about the objects. Such user-generated-content has to be cross-checked for validity – which takes a lot of time which museum-people most often do not have. There is no solution visible at the moment but, in some point of time, some of this externally created information might also be integrated into the database systems forcing them to keep changing.

2.3.3 Digital curation

A greater number of institutions of higher education institutions have begin to offer courses on "Digital curation". Digital curation is not only the preservation and storage of information, broadly interpreted, is about maintaining and adding value to a trusted body of digital information for current and future use.[35] This may become an increasing trend as time develops, but for the time being, it is likely only to represents the investment of a small number of institutions. It is however, a positive step, as digital curation continues to grow.

In the digital age, new ways of curation emerge and they have great impact on the traditional work of cultural heritage institutions. Since the 2000s, there is a trend to implement self-developed data collection systems. Over and above digitising the museum's collection or archive, there is a need to curate the new digital collection, which more museums are implementing. This digital curation

> *"involves maintaining, preserving and adding value to digital research data throughout its lifecycle. The active management of research data reduces threats to their long-term research value and mitigates the risk of digital obsolescence."*[36]

Like in the analogue museum, a "digital curator" has to look after

> *"and somehow 'add value' to digital data, ensuring its current and future usefulness. This probably implies creating some new data from the existing, in order to make the latter more useful and 'fit for purpose'."*[37]

[34] Tim Sherratt, "Small stories in a big data world", Blog *Discontents*, published 20 November 2012, discontents.com.au/small-stories-in-a-big-data-world/

[35] D. Giaretta. "DCC approach to digital curation". Version 1.23, May 28, 2005,. Retrieved from:http://dev.dcc.rl.ac.uk/twiki/bin/view/Main/DCCApproachToCuration

[36] http://www.dcc.ac.uk/digital-curation/what-digital-curation (Access: 23/09/2014)

[37] http://twiki.dcc.rl.ac.uk/bin/view/OLD/DCCApproachToCuration (Access: 23/09/2014)

> *"For dynamic datasets this may mean continuous enrichment or updating to keep it fit for re-use. Higher levels of curation will also involve maintaining links with annotations and with other published materials."*[38]

Museums and other cultural heritage institutions and their employees have to open not only their institutions but also their own thinking to interdisciplinary work and to connect their departments in order to master und use the opportunities digital technologies offer. Linking traditional scientific and collections departments with departments of digital media and creative industries from different sectors can help to develop new and innovative ideas and approaches. It contributes to the process of research, exploration, reflection, experimentation, and education profits from this cross-institutional and team-based approach. Still it has to be mentioned that in most cases digital curation is not implemented in a regular and sustainable form. Due to limited staff capacities (usually there is no job at a museum, called "digital curator") and financial reasons, most cultural heritage institutions solve this situation with running projects.[39]

2.3.4 Digital preservation

Preservation activities are an integral part of curation and archiving. Essential components of cultural life and existing heritage are transformed into digital format; on top of that, the current products of cultural heritage are increasingly digitised. Both are an indispensable part of our identity and memory, which has to remain permanently available and accessible. Moreover, an undisguised look at the cultural life of today has to be handed over to future generations. These tasks are essentially performed by heritage institutions.

Here one of the biggest challenges is that "specific items of data are maintained over time so that they can still be accessed and understood through changes in technology."[40] Within this preservation processes professionals have to "undertake actions to ensure the long-term preservation and retention of the authoritative nature of digital objects."[41] Digital preservation is considered a necessary condition for achieving the objectives of digital curation, and tools for digital curation activities (repository software, preservation metadata and interoperability standards, trusted repository certification, cost models, and information life-cycle conceptualization) are shared with digital preservation. Yet the need to ensure adequate representation and long-term access to digital information as its context of use changes, and the risk of repositories becoming unfit for use, becoming "data mortuaries" – needs the introduction of new strategies.

In addition to the physical media, the digital environment also becomes gradually outdated. This currently and in the near future consists of hardware, operating system and software that allow the file formats to be read and displayed. Therefore, it is the continuing task of digital preservation, to examine the data on correctness and accessibility, so that the file format can be interpreted with current and future software developments.

[38] http://twiki.dcc.rl.ac.uk/bin/view/OLD/DCCApproachToCuration (Access: 23/09/2014)

[39] The RICHES deliverable D5.4 – CH best practice in the digital economy - explores several such collaborative project.

[40] http://twiki.dcc.rl.ac.uk/bin/view/OLD/DCCApproachToCuration (Access: 23/09/2014)

[41] http://www.dcc.ac.uk/digital-curation/what-digital-curation#sthash.6UDUBWQK.ywBlAGP3.dpuf(Access: 23/09/2014)

"A digital document is not like a book that can be retained through neglect. Continual work is needed so that digitised items are not lost; digital documents have an approximate shelf life of only five years."[42]

Digital preservation practices in European cultural institutions

This situation has improved in the last few years. In 2012, 23% of the cultural institutions in Europe had created a documented digitisation strategy. Two years later, in 2014, it was already 26% (see Chart below).

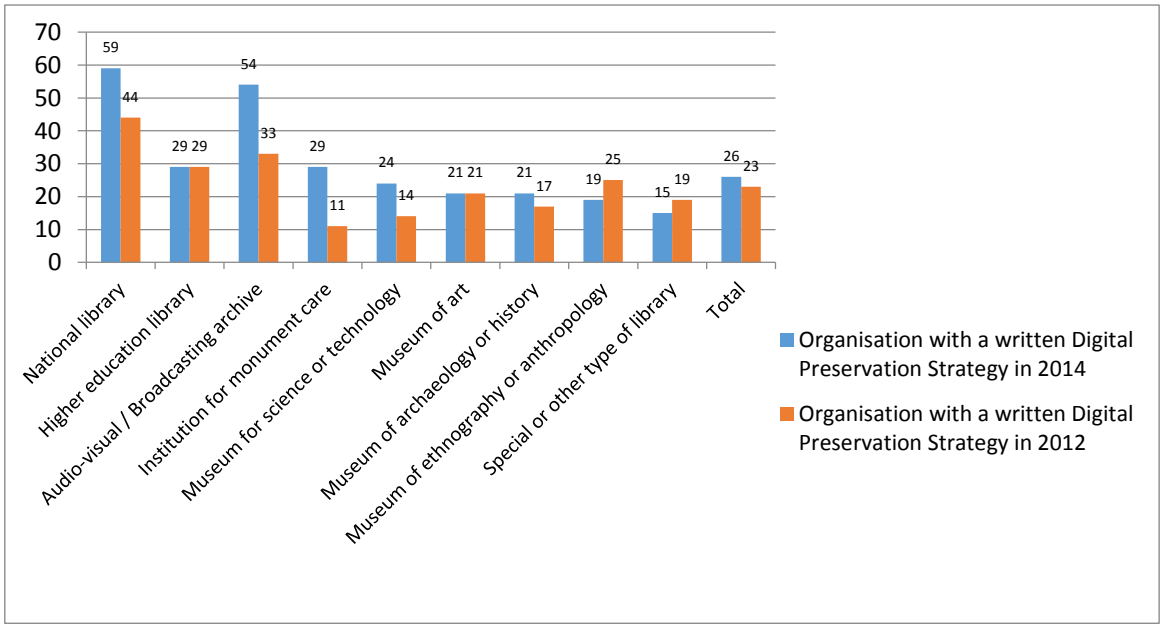

Chart 8: Cultural heritage institutions with an explicitly written digitisation strategy in 2012 and 2014 (Source: ENUMERATE)

The development and use of international standards is of great significance for digital preservation. In 2012, almost half of the cultural institutions did not answer questions on how the digital or digitized cultural heritage should be preserved following international standards. Two years later, in 2014, 70% of the national libraries of Europe had created criteria for a documented strategy for long-term archiving (Chart 13). Standards in digitisation are essential for storage and for a diverse and sustainable use of digitized objects. Requirements have to be defined, otherwise the use of digitized material won't be possible in the future.[43]

The previously mentioned ENUMERATE survey asked whether heritage institutions store their digital objects in a digital archive, which corresponds to international standards for digital preservation. The result was that in 2014 many institutions did not have their own explicit digital archive (see Chart 15).[44]

[42] The Digital Future of the Past presentation of Dr. Yasar Tonta, Hacettepe University, Turkey at the RICHES workshop in Ankara in May 2015 http://www.digitalmeetsculture.net/wp-content/uploads/2015/05/The-Digital-Future-of-the-Past.pdf

[43] Institutional digitisation plans are considered from an economic perspective in RICHES deliverable D5.3 – Fiscal and economic issues in the digital age

[44] http://www.enumerate.eu/fileadmin/ENUMERATE/documents/ENUMERATE-Digitisation-Survey-2014.pdf, p. 35

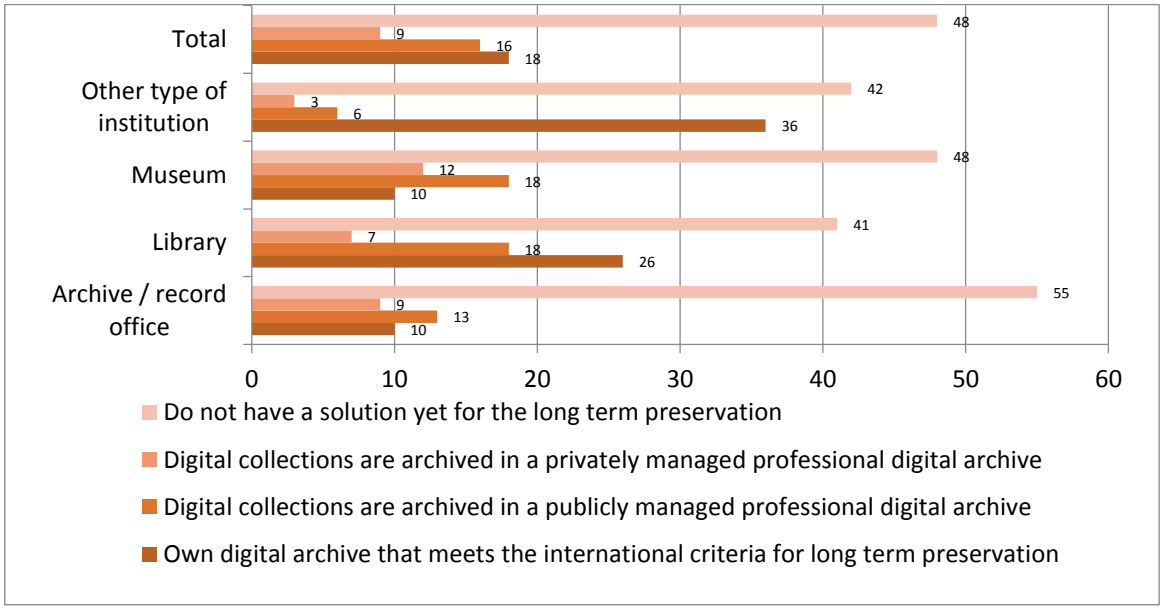

Chart: Cultural heritage institutions and their solutions for long-term archiving (Source: ENUMERATE)

2.3.5 Access and accessibility

Research findings – presented at the international and interdisciplinary series of events EVA (Electronic Visualisation and the Arts) conferences indicate that the seemingly limitless opportunities that Internet and mobile devices offer are stepping-stones for cultural heritage institutions to engage with new audiences and to draw more attention to their collections. Cultural heritage institutions that have developed a clear digital strategy seem to be the most successful in this.[45] This will examine and analyse possible key points of such digital strategies based on case studies and statistics from the cultural heritage sector.

With digital storage and analysing instruments, complex datasets can be structured. The digital change has created conditions for scientific access of information, communication and production.[46] The Internet also opens up opportunities for heritage institutions to engage with a public that have come to demand specifically information. For cultural institutions, a variety of channels, aggregators and conversational media are available to make their digital cultural heritage accessible (See Chart 16).[47] To improve the accessibility in addition to their own websites, national aggregators, as well as Europeana and other portals have been created. It is assumed that the shape of accessibility will change by the user through the increased use of mobile Internet connections, especially since the devices have also changed and will continue to evolve.

(Access: 23/10/2014)

[45] http://ewic.bcs.org/category/18205 (Access: 23/09/2014)

[46] http://www.sueddeutsche.de/wissen/digitales-morgen-debatte-zur-digitalisierung-wie-die-digitalisierung-die-wissenschaft-veraendert-1.1823133 (Access: 04/11/2014)

[47] http://www.enumerate.eu/fileadmin/ENUMERATE/documents/ENUMERATE-Digitisation-Survey-2014.pdf(Access: 04/11/2014)

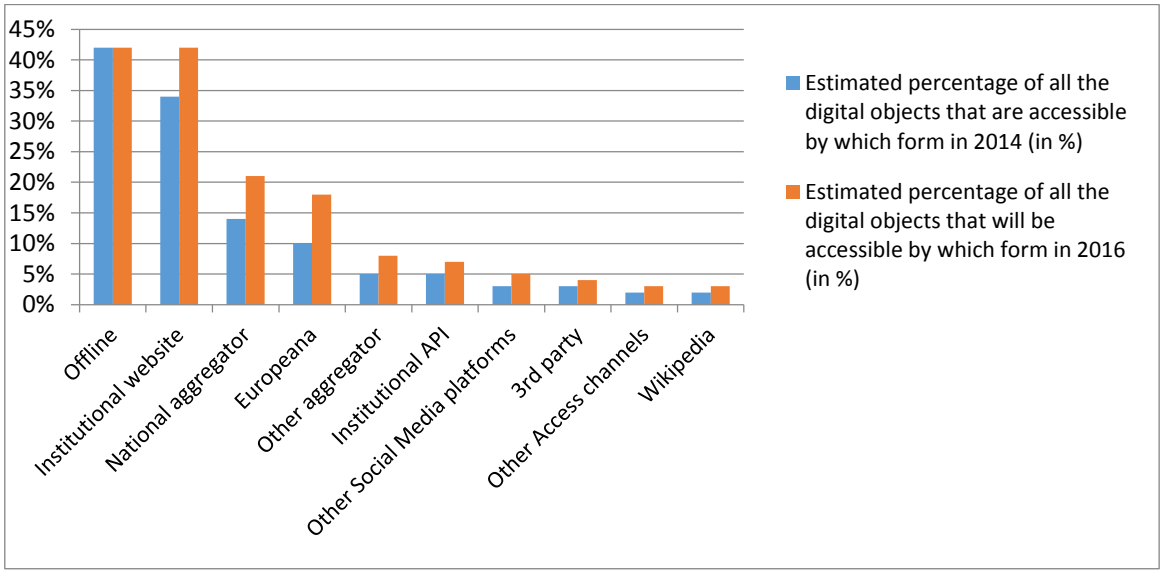

Chart: Accessibility of objects 2014 and forecasts to 2016 (Source: ENUMERATE)

Accessibility of online collections over the Internet and mobile devices should be guaranteed. Digitised objects could be embedded into apps in order to create narrative experiences. In 2012, Europeana[48] opened up data on more than 20 million cultural heritage items, among them digitised books, paintings, photographs, recordings and films from over 2,200 contributing cultural heritage institutions across Europe - including major national institutions such as the British Library, the Louvre and others. Most objects are marked by the CC0 license[49]. This means that anyone can reuse the data for any purpose - whether using it to build applications to bring cultural content to new audiences in new ways, or analysing it to improve our understanding of Europe's cultural and intellectual history. Open cultural data has the potential to enrich education, teaching and research sector immensely.[50]

High-resolution, true colour images in combination with rich metadata help to improve the quality of cultural heritage objects made accessible to the public. Moreover, standardized metadata also increase the searchability of digital objects. Quality standards should include high-resolution images, details, quality metadata, categorisation, tagging, search criteria, etc. Furthermore, online collections, databases and websites have to be sustainable. It is mandatory that collection websites are easy to manage and be expandable. The challenge that memory institutions face is to figure out how digital objects and collections can become an integral part of today´s global landscape of digital cultural heritage by means of curation.[51]

In that regard, the ENUMERATE survey also asked the cultural heritage institutions whether they have set up a written framework, with which they explain how to deal with their digital collection (See chart 16). The survey showed that today only one third of all institutions have an explicit written policy, which has to be expanded in the future.

[48] http://pro.europeana.eu/

[49] https://creativecommons.org/licenses/

[50] http://www.theguardian.com/news/datablog/2012/sep/12/europeana-cultural-heritage-library-europe (Access: 01/11/2014)

[51] See above, Digital curation.

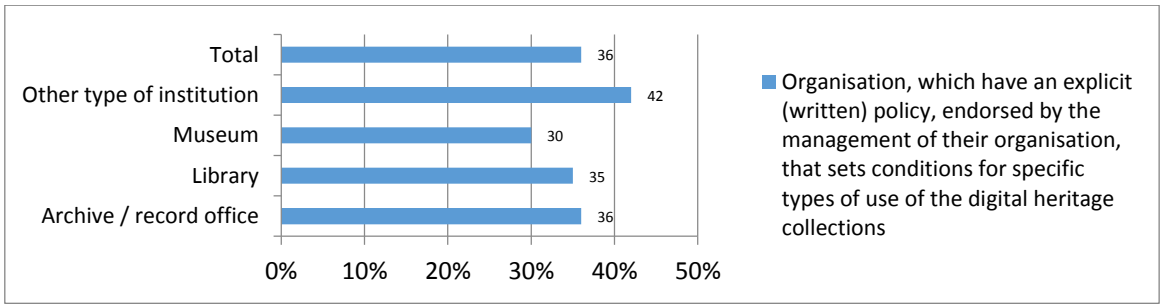

Chart: Cultural heritage institutions that have set up an explicitly written digitisation strategy (Source: ENUMERATE).

2.3.6 Creative re-use of content

As described above, portals such as Europeana are working with cultural institutions to open up access to content.[52] One of the next steps is that individuals and organisations want to take advantage of new technologies and use the content in new and innovative ways, including for commercial exploitation. Some libraries and museums have been quick to embrace this change, whereas others have been more cautious (including for intellectual property/copyright issues), or an explained previously, do not have the staffing and expertise to react so quickly.

To help to demonstrate the benefits that can come from creative re-use of digital cultural content, the European Commission has awarded contracts to projects with the remit to experiment and bring together cultural institutions and creative industries.

Europeana Creative[53], a thirty month project that ended in July 2015 that

> *"set out to demonstrate that Europeana, the online portal providing access to more than 40 million digitised cultural heritage objects from Europe's libraries, museums, archives and audio-visual collections, can facilitate the creative re-use of digital cultural heritage content and associated metadata. Partners developed a number of pilot applications focused on design, tourism, education and social networks."*
>
> *"The project goals were supported by an open laboratory network (the Europeana Labs), an on- and offline environment for experimentation with content, tools and business services, and a licensing framework where content holders can specify the re-use conditions for their material. The project was supported by continuous evaluation and business modelling development."*

[52] A survey of user experiences was undertaken and provided in RICHES D4.1 – European identity, belonging and the role for digital CH.

[53] http://pro.europeana.eu/structure/europeana-creative

A similar current project underway is Europeana Space[54], that has a three year lifetime that started in February 2014 and

> *"aims to increase and enhance the creative industries' use of digital cultural content and Europeana by delivering a range of resources to support their engagement.*
>
> *The use of content is still limited by factors including the issue of IPR status and the need for robust business models that demonstrate the potential for exploitation of available content."*

The project has six pilots: TV, Photography, Dance, Games, Open and Hybrid Publishing and Museums that spend two years designing prototypes that incorporate the innovative re-use of content, before inviting members of the public to participate in creative hackathons, using the prototypes to develop new ideas and concepts that could then be incubated into a business. The project also introduces the wider education sector to the value of re-using the material to enhance teaching.

It is clear that the demand on museums and libraries for their content will continue to increase as a result of the demand of a public that wants to re-use content in new and innovative ways, as a result of the new generation of technologies. Cultural institutions have challenges to overcome in terms of their digitization of collections both internally and within portals, considering intellectual property and other ways of sharing their content.

2.4 The role of libraries and museums within modern society

Although there has been much change within libraries and museums as they have modernised their systems, both for the efficient management of collections and to begin to make digitised images available, it is also important to consider the role of libraries and museums within European society.

2.4.1 The role of the modern library

> *"Traditionally, the library was merely a place that housed a collection of books that was available to the general public. Members of the library were able to borrow a certain number of books and then return them by a particular date.*
>
> *Today, however, since the dawn of electronic resources, the internet and a diversification of learning materials the library represents a much more multi-faceted concept. Nowadays libraries contain books, journals, DVDs, audio books, CDs, manuscripts and magazines, covering a wealth of topics. In addition to these resources, all libraries have computers with internet facilities, which open up a vast world of online resources, informational websites and spaces for discussion and interaction.*
>
> *In terms of learning, the library offers the opportunity of continuous learning outside the formal structure of full-time education. Classes, exhibitions, talks and special events offer individuals the chance to pursue interests or simply learn about something they may have never heard of, in an informal setting. These events can often be a chance to catch up with friends as well as a source of learning and development and are designed to be enjoyable rather than serious.*

[54] http://www.europeana-space.eu/

In addition to providing resources for research or exploration, libraries now offer a diverse variety of classes, discussion sessions and talks aiming to include all groups of society and improve practical skills as well as community cohesion. Despite being primarily focused on attracting people into the library, many libraries also try to reach out to the wider community, particularly to those who are unable to travel to the library itself, by means of mobile libraries or online borrowing schemes; this helps to involve the whole community and also ensures that everyone is catered for and can enjoy reading and learning. By involving the whole community, people can learn about different cultures and traditions as well as different generations and can therefore use this knowledge to understand and appreciate other ethnic groups and ages; this increases social interaction between different social groups and builds a more harmonious community.

The modern library also acts as a place where people can gather to meet new people or discuss books they may have read or articles they have discovered for example; being able to get together with others is a valuable component of successful community life and can increase people's confidence and self-esteem. The Children's story time, for example, not only offers an interactive learning experience for children but also encourages social interaction between the children but also between the adults who are accompanying them; this can be particularly beneficial for single parents who may struggle to meet new people due to the busy nature of their lives."[55]

In August 2013 young librarians from ten countries met in Latvia to discuss the question "What defines a modern library?" Over the course of the three days, with discussion facilitated by United States' experts Helene Blowers and Nancy Davenport, three main themes emerged:

- *"Modern library services should promote knowledge creation rather than knowledge consumption. Unlike the library services of the past that focused on distributing books and research materials and a one-sided provision of information and resources, the modern library creates a space where patrons engage with information—process it, reflect on it, have conversations about it, and develop new ideas, conversations, and opportunities as a result of it.*
- *Though libraries do play a valuable role in bringing the world to the community, they should focus even more on bringing the community to itself. Modern libraries are community centers—they should reflect the needs, personality, and nuance of the community(ies) they service, and serve as a glue to bring disparate members of the community together.*
- *Best practices in Monitoring and Evaluation tell us to focus on impact rather than outcomes. Similarly, the modern library should not assess its value based on the quantity of services provided or number of people that walk through their door—but rather based on the true, long-term, substantive impact on the lives and livelihoods of community members.*

Notably, none of the examples above explicitly mention new technologies. In her presentation, Helene Blowers noted that the most impactful changes in modern libraries are more philosophical than technical. Computers and internet access are incredibly important, but their real impact is felt in conjunction with targeted services that promote creativity, opportunity, and community-building. This potential can only be realized through the work of librarians."[56]

[55] http://www.swmlac.org.uk/the-role-of-the-library/

[56] https://irexgl.wordpress.com/2012/08/28/what-defines-a-modern-library-exciting-conversations-emerging-from-the-

The role of the modern library has to be considered in the context of Europe's wider economic situation. Governments are making cuts and local community libraries are often forced to close; the argument, that people can access books and articles online and that there is no longer the need to run so many expensive buildings, has been met with justified outrage.

However, this isn't the full story for libraries, as

> *"the recent explosion in the building of big, spectacular and self-consciously symbolic libraries around the world would seem to contradict that idea. One of the most recent of these* (September 2013), *the £188m Library of Birmingham* (United Kingdom), *is Europe's largest in terms of floor area.*[57]

Figure: The new library in Birmingham, United Kingdom

As illustrated, the design of libraries has changed, but what of their function? Brian Gambles, project director at the Library of Birmingham, outlined that it

> *"must be inclusive, transparent and inviting – a public space in the city which is welcoming to all….. You want the library to be part of a better economic future…. When the public library service started in the 1850s, it was about how to give opportunities to those who didn't have opportunities to learn through the formal system. Over time we lost that and the library became about transaction, about finding and borrowing products. That transactional function is withering as there are now so many more media than just the book."*[58]

Do these 'super' libraries fully replace the local libraries that served communities or do they provide a more corporate function? At this stage, it is too early to tell.

international-young-librarians-academy-in-ventspils-latvia/

[57] http://www.ft.com/cms/s/2/86263d94-10a0-11e3-b291-00144feabdc0.html

[58] http://www.ft.com/cms/s/2/86263d94-10a0-11e3-b291-00144feabdc0.html

The Global Libraries project (Turkey), using grants from the Bill and Melinda Gates Foundation, considers the impact upon digitisation and the growing gap that is appearing for the digitally illiterate population. With a greater number of services becoming digital, combined with bank branches and other service closing, what happens to the people, generally the older generation, that either don't have or can't use the internet at home very well?[59] The project supports people in their own communities with training sessions to prevent social exclusion.

> *"Equality of opportunity in the digital age requires that all individuals, especially those living in rural and poor communities, have access to online information along with the skills to use and interpret the information they find on the Internet. Worldwide, public libraries are uniquely positioned to provide this opportunity.*
>
> *Most countries have public libraries. There are more than 320,000 libraries worldwide, 73 percent of them in developing and transitioning countries. In many communities, public libraries are the only place where any person, regardless of education or skill level, can have access to information and the Internet free of charge. Moreover, library staff often provide training and support for first-time Internet users as well as those looking to improve their skills. As vital as they are, however, public libraries are often underutilized and need critical support to move forward into the digital age. Meeting the evolving information needs of individuals and communities through technology is no easy task. Technology becomes obsolete quickly, and resources are needed to keep up with ever-changing community needs."*[60]

2.4.2 Visitors of Museums[61]

The annual report of the Institute for Museum Research for 2012 discloses that in Germany during 2012 over 112.5 million museum visits were made.[62] The highest numbers of visits were reached by folk, art and natural history and technical museums – although particularly art museums could achieve their success through special exhibitions. When compared to the previous year, the visits have increased by approximately 2.9%. This follows the trend of the previous years (increase in the last two years: 0.35% and 2.2% respectively), but the last report still highlights a new record. How could this be achieved? The museums were interviewed: the main reasons stated for the increase were more public relations work or educational activities in the museums, as well as offering important special exhibitions. Consequently, among those individual museums that had a decrease of visitors the limitation of special exhibitions was named as main reason and, also, the closing of museum-buildings due to renovation work and shortening of the opening times.

[59] Prof. Dr. Mehmet Emin Kucuk (Hacettepe Technology Transfer Center, Turkey): Global Libraries Project Turkey_Education-Learning presenation made at the RICHES Ankara Workshop in May 2015.

[60] http://www.gatesfoundation.org/what-we-do/global-development/global-libraries

[61] In this part, a comparison between the real visitors of museums and the "virtual" visitors of the museums – users of digital services – will be provided.

[62] Institut für Museumsforschung (SMB-PK), „Materialien aus dem Institut für Museumsforschung", Issue 67, Statistische Gesamterhebung an den Museen der Bundesrepublik Deutschland für das Jahr 2012 (including an English Summary), Berlin 2013.

So, how is it possible to draw attention? To develop an audience from occasional passers-by into highly enthusiastic advocates it always takes the same steps. At first, people need to be drawn towards the organisation through advertisement, then they need to be interested and attracted with the content. For the next steps, one should connect with the audiences and get them involved and, last but not least, it is necessary to activate the audience in creating their own content. Implementing this means that it is necessary to make and establish a connection and then involve the users/visitors in creating value processes. Therefore, one should focus on highlights of museums and libraries in the digital world, which – following Jasper Visser's approach – are: value, community, engagement and co-creation.[63]

Figure: The Pergamon Altar in the Pergamon museum: one of the most visited museum in Berlin

Considering again visitors and their description: museum visitors have an above-average education level with a high percentage of people with academic degrees. People who already count within the museum's visitor numbers are also open to return more often, as well as visiting other types of museums. However, only a smaller percentage of the visitors can be described as routine, regular museum visitors. In contrast, many visitors come only infrequently to the museum and in fact, a large proportion of the population do not attend.[64]

[63] cf. http://themuseumofthefuture.com/2014/04/18/museums-in-times-of-social-and-technological-change/(Access: 23/10/2014)

[64]Wersig, Gernot; Schuck-Wersig, Petra: Virtuelle Museumsbesucher – Empirische Studien zur technischen Außenrepräsentanz von Museen, Endbericht 2000 (unpublished), p. 137 ff.

In conclusion, in order to achieve more regular museum visitors and also increase visitor numbers, museums have two objectives; the first is to generate new museum visitors and the other, to obtain a higher activity and stronger visiting behaviour from existing museum visitors.

In general, motivation for museum or exhibition visits are often generated through media discussion, especially relating to exhibitions and unique events.[65] Therefore, the motivating factors for a first visit are often a showcase event, all- inclusive tickets, renewal, structural measures and new openings with technical, scientific and natural history collections.[66]

As confirmed by many studies, it has been observed that the museum visit is for most people a shared experience that is primarily experienced with the partner or with friends – just art museum and cultural history museums are visited by 40% and 30% respectively when compared with unaccompanied people[67]. Looking at the motivation factors leading to a return visit, they usually similar to those leading to the first visit. Surveys undertaken from the point of view of the visitors show: the three most motivating reasons for visits are unique permanent exhibitions, interesting presentation of exhibits and the experiential character experienced during previous visits.[68]

As yet, there are no comprehensive studies available yet for online activities of museum visitors or visits of websites of museums (as a whole). Still, it might be assumed (and deducted from the kind of objects that they hold in the real world) that exactly this makes users more interested in museum objects (online and offline): digital exhibitions with some possibilities to get involved.

2.4.3 The role of the modern museum

"Visiting a museum is often stereotyped as an activity confined to those going on a school trip or members of the middle or upper classes. In reality, however, a trip to a museum can be enjoyed by all and can be both a pleasurable and educational experience. The primary role of a museum is to be a source of education, whether it be through showcasing collections of cultural products such as pieces of art, telling the story of something, such as an historical event, or raising awareness of a societal concern. The mantra of a museum is to ensure that on leaving, each person knows something that they did not know when they entered.

Today, museums are more focused than ever on the promotion of a more interactive, wide-reaching educational experience. The diversity of museum attractions is undoubtedly increasing with everything from classical music, art and sport to contemporary film, toys and war exhibitions represented; in short, there is something for everyone. Today, traits of popular culture are often represented by museum and gallery exhibitions making them more accessible and interesting to young people, who may have previously associated a trip to the museum with looking at ancient relics or medieval paintings rather than pop art or celebrity for example.

[65] Herman Schäfer cf. „Der Besucher, die große „Unbekannte"? Besuchergewinnung und -bindung in der Stiftung Haus der Geschichte der Bundesrepublik Deutschland." In: Bernd Wagner (Hrsg.)„Jahrbuch der Kulturpolitik 2005", Vol. 5, Thema: Kulturpublikum, Essen 2006. p. 394

[66] cf. Volker Kirchberg. "Besucher und Nichtbesucher von Museen in Deutschland." In: Museumskunde. Vol. 61, 1996, p. 151ff und Volker Kirchberg, „Gesellschaftliche Funktionen von Museen. Makro-, meso- und mikro-soziologische Perspektiven." Berlin 2005.

[67] cf. Nora Wegner, „ Besucherforschung und Evaluation in Museen." In: Patrick Glogner, Patrick Föhl(Editors), „Das Kulturpublikum. Fragestellungen und Befunde der empirischen Forschung." Wiesbaden 2010, p. 122

[68] cf. Tanja Laukner: „Besucherbindung im Museumsmanagement: Die „Bindungsklebstoffe". In: Kunstmuseen, Marburg 2008.

> *Museums provide a unique interactive experience of getting up close to things we usually only see in books, newspapers or on the television. Seeing the Mona Lisa for example, is a totally different experience to seeing one of the millions of printed versions; the perception you get of something from a second-hand source is often completely different to the one you get when you see something with your own eyes."*[69]

With digital technologies, cultural heritage institutions have the opportunity to reach the wider public. The fusion of culture, a well-thought-out story and new technologies are the main components of a digital exhibition[70]. The advantages of digital exhibitions are obvious, as they can be visited by people from all over the world. When they are well curated, these exhibitions are excellent learning tools that can make even the most valuable and fragile works and documents accessible to the public, without putting the national and international cultural heritage at risk. Moreover, parts and details of cultural heritage objects can be made visible that could not be seen otherwise, not even through the direct observation of the original. The participation of the audience can enhance and enrich these digital presentations even further. Nevertheless creating digital exhibitions is a comprehensive and time-consuming work, which often has to be done by recruited staff.

Digital exhibitions need digital storytelling. Digital storytelling is one way for cultural heritage institutions to give new meaning to an object and to create a captivating story around it, and allow every-day people to share aspects of their life. Special designed apps help not only to exploit the wealth of collections; they also breathe new life into them. The combination of story and game, learning and fun is what makes the user reflect on his/her own attitude towards a certain topic. Involving the user/ visitor is now often key to success. Physical exhibitions can serve as the starting point for digital storytelling apps. Digitized objects that will be embedded into the application have to be chosen with care, because not all objects in an exhibition are suitable for a digital storytelling project. Geo-referencing can further enrich these projects by adding additional layers to the story. The challenge of digital storytelling projects is the translation of complicated ideas into workable user interfaces in a way that it tells the story but also makes it clear what the user is supposed to do. With digital technologies, there are multiple ways of curating an object, a collection or exhibition nowadays either in an exhibition in a museum or completely in the virtual world. By providing tools, devices, and services cultural heritage institutions can enable effective communication.

Since 2012, Max Hollein, Director of the Städel Museum, Frankfurt, (Germany's oldest museum that is currently celebrating its 200th anniversary), has launched an ambitious programme to extend the reach of the museum which houses paintings, sculptures and works from the Middle Ages.

> *"Hollein's focus has been on the digital expansion of the museum, launching a range of groundbreaking online initiatives to attract new audiences and inform old ones. Already up and running are "digitorials": engaging, digestible, richly illustrated introductions to major exhibitions, which can be accessed anywhere for free. Here you can unpeel layers of scholarship, listen to lectures and interviews, watch videos and read essays, all carefully chosen and edited by the museum's curators.*
>
> *In June 2015, the first to be uploaded, a digitorial on Monet and the Birth of Impressionism won a Grimme Online Award for imaginative use of digital technology in the cultural sphere.*

[69] http://www.swmlac.org.uk/the-role-of-the-museum/

[70] Further details will be presented in RICHES deliverable D6.1 – Digital Libraries, digital exhibitions and users: an interactive case study report

It exploits cleverly the digital medium's capacity for rapid shifts of focus from broad contextual history and artists' biographies to tiny details of style and technique. It has been downloaded more than 280,000 times.

These digitorials will be complemented later in the year by the launch of online art history courses for the enthusiastic amateur that will offer up to 60 hours of free tuition and are being developed in co-operation with the Leuphana University of Lüneburg. Städel will also open a comprehensive digital exhibits platform, which will enable online visitors to "roam" its works, whether they are on view or in storage.

For Hollein, these initiatives are more than picturesque add-ons to the museum's main purpose: "These are not marketing tools, they are not to increase visitor numbers. They are a major educational project. We see the museum not [just] as a place to visit but as a place that educates about art and culture, whether in Frankfurt or in the digital sphere.""[71]

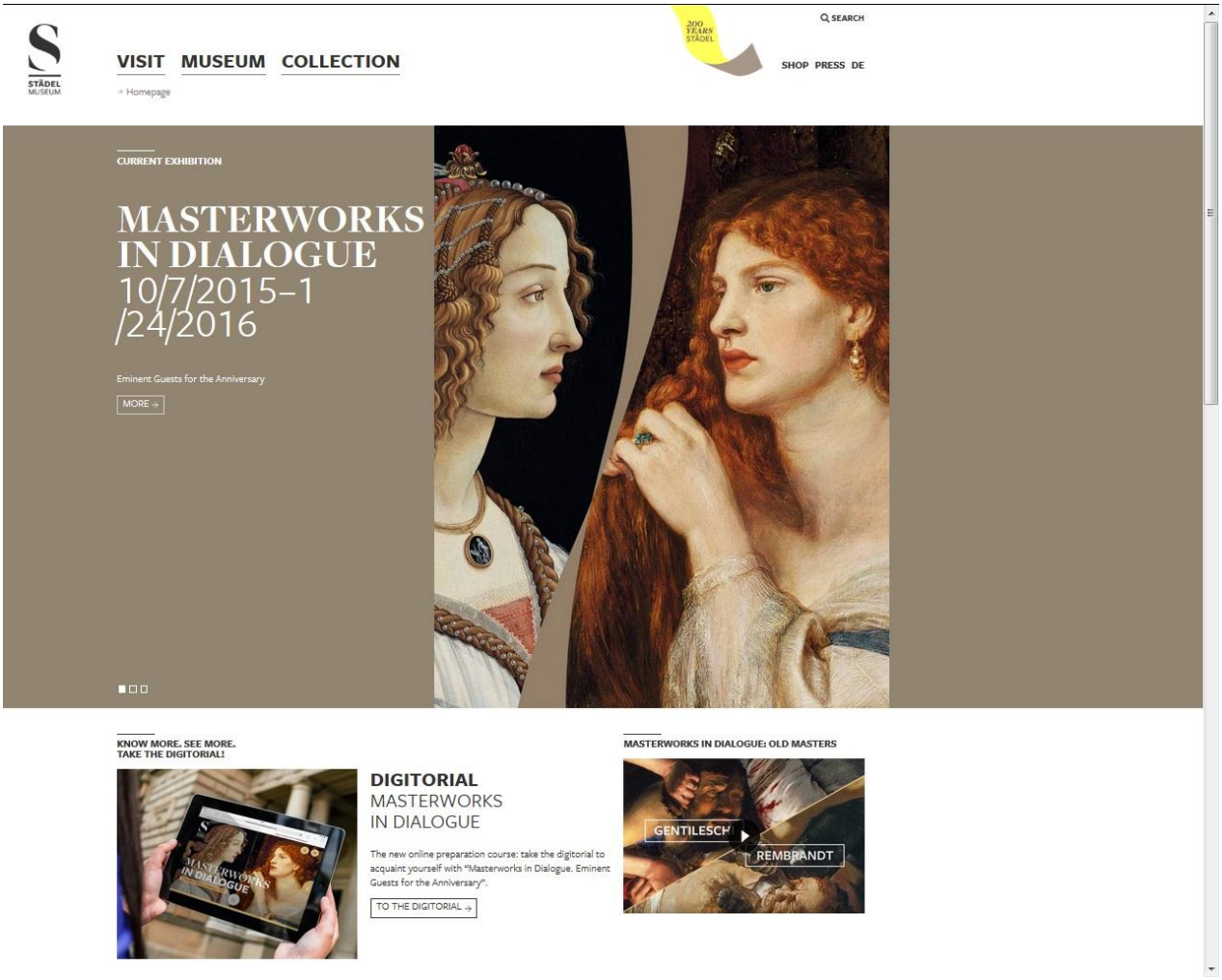

Figure: Home page of the Städel Museum

[71] http://www.ft.com/cms/s/0/c2120644-350b-11e5-bdbb-35e55cbae175.html

The traditional model of museums is clearly changing, not just with Städel Museum, but with the Amsterdam based Rijksmuseum launching its Rijksstudio in 2013 and providing 125,000 works for its audience to play with. Also within the Netherlands, the concept of pop-up museums[72] have changed visitor expectations and in the same way as described for libraries, museums are using public spaces to engage members of the public.

It is important also to remember that there is no single concept of museum. In addition to the large national institutions such as the British Museum, Städel Museum and Rijksmuseum, there are small traditional museums such as the oldest paper mill in Europe, the Museo Della Carta[73], a short walk from the tourist area in Amalfi, Italy or the Forge Mill Needle Museum[74] next to the ruins of Bordesley Abbey in the United Kingdom that show old machinery, with work stations preserved. This can also be contrasted with the more modern virtual museums that have no exhibits, but are interactive, using gaming technologies to tell stories such as the Museo Archeologico Virtuale which provides a multi-sensory experience to detail the historical reality of Herculaneum and Pompeii in 79AD at the time of the eruption of Vesuvius, a short walk away from the rediscovered town in Ercolano in Italy.[75]

2.4.4 Building communities and cooperating: the new social role of CH

There is the trend for cultural heritage institutions to become even more then before "social institutions". Educational programs and labs help cultural heritage institutions to better engage with, educate and learn from their audiences. In the future cultural heritage institutions should focus even more on their users; exhibitions and events have to become more and more participatory and interactive, because the society itself is changing. Not only the generation called "digital natives" has participatory demands and claims, even great parts of the so-called digital learners are expecting interactive digital offers, the Web 2.0 brought.

> *"The 21st century […] is a century of activity, albeit through digital tools."*[76]

The tasks of curatorial departments have to be re-thought as well, as users are expecting to actively take part in the shaping and curation of online digital exhibitions.

This participatory dimension with which cultural heritage institutions increasingly deal, can also have an impact on the very basis of the museum's work as in the case of the Italian Palazzo Madama in Turin. "When confronted with an opportunity to buy an iconic collection of porcelain they put some of the main trends in technology and society to their advantage and managed to successfully crowdfund the acquisition."[77] Through the smart use of social media, a small museum with limited staff managed to raise 100,000 Euros (20,000 more than they needed).

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[72] http://www.allardpiersonmuseum.nl/te-zien-te-doen/nu-te-doen/content/tentoonstellingen/2015/01/dwdd-popup-museum.html

[73] http://www.museodellacarta.it/default.asp?l=2

[74] http://www.forgemill.org.uk/explore.htm

[75] Further exploration is detailed in RICHES D6.1 – Digital libraries, collections, exhibitions and users

[76] Jasper Visser. "Museums in times of social and technological change."http://themuseumofthefuture.com/2014/04/18/museums-in-times-of-social-and-technological-change/ (Access: 11/11/2014).

[77] Ibid.

According to Jasper Visser's reports it was even more important here that the museum succeeded to connect with 1,500 people. A community was created that can further support the museum in its future work, as for example in case the museum needs volunteers.[78]

Another successful participatory example is the cooperation of the Rijksmuseum Amsterdam with the DIY platform Etsy[79].

> *"After putting their collection online in high-quality and inviting the audience to work with it, the Rijksmuseum now encourages [not only] creatives and everyone else to use their collection as a starting point for their own craft, and sell their creations through Etsy. […] By doing so the Rijksmuseum adds tons of value to the collection, [which] will get them more (virtual) visitors, more reach and more impact. […] Engagement, digitally or otherwise [will play a key role] in the development of a relation between people and institutions, If museums do not activate their audience once in a while, they will lose them to competitors who provide the opportunity to participate."*[80]

The digital change is turning cultural heritage institutions into social institutions that engage their visitors (virtual or real) to co-create, although the idea of co-creation is not new. Nonetheless, the use of social media is not an integral part of participation – it is the medium with which institutions can talk about co-creating activities.

> *"Palazzo Madama co-created an acquisition with their local community. The Rijksmuseum co-creates a lively creative industry with DIYers from around the world."*[81]

With its collection, curators, buildings, etc. museums have very unique capabilities and characteristics that are not fundamentally changing in the digital age, because they are valuable and valued by the visitors.[82] Only the use of these capabilities and characteristics is changing.

With the evolving technology of the Internet, standards have changed. Many institutions use Web 2.0 or 3.0 for their web pages and their systems. This technology lets users interact with curators etc. Most libraries now have accounts on social media, like Facebook, Twitter, and YouTube.[83] This has generated greater demand for members of the public to interact with museums and libraries, providing feedback and expecting their voices to be heard, either remotely or through using their devices on site.

Museums and libraries have had to consider ways in which they can evaluate and implement suggestions; this has been undertaken through co-creation actions where users (or as importantly non-users) are able to enter into dialogue with the intuitions and help to reshape its presentation.[84]

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[78] Ibid.

[79] Etsy and DIY is discussed further within D5.1 – The Use of Craft Skills in new contexts.

[80] Ibid.

[81] Ibid.

[82] Ibid.

[83] For museums: "Museums and libraries have to become "social institutions", interacting and "co-creating", sharing the "power to interpret" with the "users" (customers)." Jasper Visser2014: Museums in times of social and technological change, http://themuseumofthefuture.com/2014/04/18/museums-in-times-of-social-and-technological-change/ (Access: 18/06/2014). It is a short version of the keynote speech held by J. Visser at the Canadian Museums Association Conference 2014 in Toronto.

[84] Co-creation activity has been undertaken within the RICHES project and it detailed further within D4.2 – Good practices

2.5. Conclusion

This chapter has considered the evolution of both museums and libraries from the introduction of the first computers to a point where users expect to interact. The journey has been one of continual discovery of integrating card based data to making compromises to develop digital catalogues that were then superseded with the demand for digitised items and a demand for content to be made available for re-use.

Transferring value in the shape of cultural heritage is one of the main missions of libraries and museums, but also one of the points that makes these institutions most attractive. The digitisation has influence on that value, too. Objects that are digitised or are even born in a digital form, can be shared, re-used, transformed and re-shaped easily and from there on transmitted again. So cultural heritage, as main substance is involved in this process and gets a new perspective, too.

Apart from consuming, visitors are able to develop to active participating communities. Cultural heritage is from there onwards not something that is communicated as something abstract, aloof, distant and totalitarian, instead new ways of communication are free to be developed and notably new, evolving reception forms are to be provided. The museum and library therefore not only provides its base for community support and education, but the entry into a world of new online possibilities for users

A unique experience can be provided and that one often happens or is shared in groups or groups of communities in regular intervals. This engagement is the point of the matter that involves the audience, activates them and creates a fascination that will lead to the development of a connection with the transmitted value (cultural heritage) and the transmitting institution (libraries or museums). At the same time cultural heritage is transformed from something abstract to a value that is shared/part of each one and bears the own engagement.

At the end of the day, memory institutions – such as museums – are able to start a co-creation process, in which they and the audience develop and create value together; and the achievement will be a new value developed through unique and valuable experience together with the percipience of cultural heritage as an element that holds and keeps together.

What are the next steps and requirements for libraries and museums? As well as the continual opening up of content and engagement with portals such as Europeana, the immediate future is likely to include BYOD (bring your own device) and gamification experiences, leading to location based services and maker spaces, with natural user interfaces and the Internet of Things on the five year horizon. One thing is certain, institutions will have to continue to adapt to new technologies and demands to serve their communities.

and methods for co-creation, with a toolkit to be produced.

To end up with the words of Jasper Visser:

> *"I believe museums (and also archives, galleries, libraries, theatres, art centres, etc.) have a place in the 21st century. I also believe this place might be very different from the place they occupied until now. I believe it's not easy to be a museum nowadays – I've seen enough organisations struggle to keep their doors open and their audiences coming – but I know there is a way forward. I believe the way forward is to become more social institutions, but before going there, let's look at the changed world."*[85]

Starting from general observation and new user developments, it would be useful to investigate continuously new tendencies and trends for museums and libraries in order to grasp the present and to enable cultural heritage institutions (and their objects) to shape not only their own future – consciously and actively.

[85] http://themuseumofthefuture.com/2014/04/18/museums-in-times-of-social-and-technological-change/ (Access: 23/10/2014)

Chapter 3: Context of Change for Mediated and Unmediated Heritage

3.1 Introduction

It is widely assumed that authorised heritage institutions can improve their relevance – and build larger, future proof 'audiences' – by paying more attention to (cultural) diversity and digital youth culture. This chapter investigates potential opportunities for the heritage domain by focusing on

> *"The relationship between 'living' or contemporary media and what is formally considered Cultural Heritage (CH), and will explore any commonalities or potential tensions between the cultural, curatorial and creative agendas of those working in these sectors"* (RICHES DoW: 9).

More specifically, the chapter reports on a study that examined:

- **Commonalities** and potential **tensions** between mediated and unmediated perspectives to cultural heritage; and
- General developments and mechanisms in living media practices out of which **opportunities** for CH institutions can be identified.

The research at hand fits within a broader set of questions aimed at examining the changes taking place in the management and transmission of CH, largely as a consequence of the advent of digital information and communication technology. Authorised heritage institutions (AHI) embraced many possibilities of digital technology, in particular multimedia applications at exhibitions and static websites. Attempts at more dynamic interaction through digital means have so far been tried out or adopted by few museums and failed to engage a larger and diverse enough audience.

Therefore, this chapter focuses on the perspectives of non-professionals and examines their living media practices to shed light on how museums may define new audience engagement strategies. The study focuses in particular on young adults aged between 18-35, in the Netherlands. Through observation of events and online activities, interviews and desk research, trends come to the fore that provide information on daily life heritage attitudes and practices from non-professional perspectives. The findings provide clues about the relationship - or gap - between the views, approaches and activities of authorised heritage institutions (AHI) and informal needs and practices in the Netherlands, and are further used to reflect on how AHI can revise and re-configure their approaches to create stronger links with youth and devise bridges to cultural spaces and practices developed and sustained through grassroots initiative.

The results show that the majority of young people who take an interest in heritage mainly prefer to engage through real life experiences, addressing all senses either within small (family) groups or by participating in large events such as fairs and festivals. In general, youth attitudes to culture and heritage are marked by a DIY (Do-It-Yourself) mind set, by which culture garners value through direct engagement, making it part of daily life and activities, and appropriating, interpreting, and modifying cultural instances to make something new. Despite wide access to media and technology in the Netherlands, relatively few user-driven online heritage practices were found. An exception to this are stigmatised minorities who engage increasingly in roots-research and feel they can best use online platforms to achieve their objectives. Various AHI in the Netherlands, including those dedicated to specific ethnic interests, have experimented with offering such online services but had to give up due to lack of funds, needed to support a more professional attitude.

Curators need *time* to maintain certain *expert quality* standards before they want to publish content online on an institutional, professional basis. These restrictions seem to be less valued by general users. Does professionalism need defence or redefinition?

The various findings described in this chapter are situated in a specific historical and political national context, therefore the described trends cannot be generalised. Further research is needed to specify situational challenges and opportunities. However, by taking an ethnographic approach, this study draws attention to the value of engaging directly with youth as a means to get first-hand knowledge of *their* cultural interests and practices, and shed light on how youth attitudes to culture and heritage are formed and condition their further engagements with museums and other heritage institutions.

3.2 Approach and methodology

This study looked at how the relationship between mediated and unmediated – or 'living' – heritage can be recalibrated, answering the following main question:

What opportunities for museums and cultural heritage institutions can be identified from living media practices of young adults in a diverse European population?

To tackle this question, the study opted for an in-depth ethnographic study prone to shed light on living media practices in relation to subjective perceptions and attitudes towards heritage and digital culture of a diverse group of youth in a national context. The research focused on young Dutch adults (ages 18 – 35), selected as a group for their propensity to make the most intensive use of online media. Various marketing studies show that 99% of Dutch youth use media creation tools and over 80% own a smart phone or laptop (Media Standard Survey 2013; Newcom, 2014; Motivaction, 2014) and access to the internet is covered 100% in the Netherlands through Wi-Fi and 4G. Moreover, the Netherlands is a society with a diverse population due to a long international history. This is one reason why special attention is paid to *cultural* aspects of heterogeneity and ethnographic museums are being highlighted in places. The second incentive comes from existing research, demonstrating how and why ethnic self-defined groups use *digital* tools to fulfil their needs in relation to specific cultural heritages in a multicultural society (Leurs 2012, Westlund 2014, Elahi 2014, Parker and Song 2007).

Through 15 individual cases, online desk research and a literature survey, this study investigated what young people actually do, both online and offline, in relation to what they themselves consider heritage. Some topics are accentuated, to help identify trends that will eventually highlight some opportunities and challenges for the CH sector:

- What is considered 'heritage' by non-professionals?
- What type of self-organised group initiatives and activities take place?
- What kind of heritage-related practices take place through living media?
- What attitudes can be identified towards heritage and living media?

Due to the exploratory character of the study, a variety of methods was used: informal conversations, semi-structured interviews, field observations, literature study and analysis of online content. Waag Society, connected over a period of minimum three months on a personal basis with fifteen young adults aged between 18 and 35, throughout the country and followed them both online and offline. This pool of research participants was contacted through several personal networks and desk research, resulting in a self-selective non-representative sample.

Diversity was spread as much as possible in terms of

- gender
- education
- socio-economic position
- ethnicity
- geographical setting

to obtain a variety of perspectives. The research relationships consisted of online communication, at least one face-to-face two and a half hour semi-structured interview and visits to life events. Besides individual cases, popular online activities have been explored, as well as self-organised group initiatives and activities. The obtained empirical data were contextualised through a literature study.

This small-scale study is case-focused and descriptive in its approach, to understand personal variations in needs, perspectives and behaviour towards heritage, be they online or offline. While findings cannot be generalised to the European context, it can be purported that the approach to understanding and engaging with youth in their own terms, and seeing their online and digital lives as assets rather than liabilities, are aspects that can inspire the practices and visitor engagement strategies of museums and other AHI beyond the context of the Netherlands.

3.3 Background and definitions

As mentioned indicated before, cultural heritage is in the RICHES context perceived as a *dynamic* phenomenon

> *"…concerned with contemporary 'living cultures' that may reinterpret and recreate their culture and can play a vital co-creative and participatory role in the expression, production and consumption of culture."* (RICHES Taxonomy 2014).

This research analyses connections between cultural heritage and living media practices, with the aim of identifying tensions and communalities, as well as potential synergies that can be cultivated. A distinction is made between mediated and unmediated heritage.

'Mediated heritage' refers to heritage that is exhibited, interpreted, curated and preserved by authorised heritage institutions (AHI). This study is concerned with understanding how AHI practices can be uplifted and expanded by looking at user-driven heritage practices *outside* authorised institutions, called 'unmediated' heritage practices. "*Implicit in the idea of unmediated heritage is a notion of more democratic practices of designation and utilisation of heritage, especially through new media technology."* (RICHES taxonomy 2014).

Unmediated heritage practices are prevalently carried out in mixed offline and online spaces. An important point of departure is the phenomenon of *living media* with the following working definition:

> *"The subset of social media featuring a high-degree of social presence and media richness – such as Twitter, Facebook, YouTube and Flickr – through which contemporary audiovisual content is created and shared by a non-professional public. Enabling a lively, immediate communication passage, these tools strongly enhance the unmediated heritage phenomenon, giving a great expressive power especially to younger generations. Through living media, people are actively involved in what is called participatory culture, characterised by low barriers to creative expression and civic engagement."* (RICHES taxonomy 2014)

In particular young people express their layered identities – or identifications to be more precise (RICHES taxonomy 2014) - in ways often visible through contemporary media and digital technologies. In this information and communication technology realm it is currently believed as our society being in the middle of a shift, moving from Web 2.0 to 3.0. In the twenty-five years that have passed, the web already went through several stages.

Where Web 1.0 can be characterised as a collection of static web-pages, mainly from organisations sending information, and few content creators; Web 2.0 began to shape up as a platform for connected services. This is being referred to as the *social* web, since much of the content of these platforms (like MySpace, YouTube, Flickr, Delicious and Facebook) is provided by its users to communicate with each other. While in the Web 2.0 era interaction between organisations and users is characterised as institution-led *consultation*, the 3.0 era is believed to become an age of real mutual dialogue and *participation* based on more equality (Urricchio 2013).

So-called *new media* are seen as part of - as both cause and effect - big societal changes starting from the 1960s onwards, such as intensifying processes of globalization, decentring of established and centralized geopolitical orders and the start of a 'post-industrial' information age (Lister et al. 2008, 11) leading towards a digital *social* innovation. Some favour the term 'networked digital media' over 'new' media and stress – in combination with smart phones – convergence, pervasiveness and the ubiquitous nature. Regardless of any utopian or dystopian views about these new and social media, and equally not taking into account to what extent the new technologies widen, accentuate or diminish existing socio-economic divides, it can be stated that a wide array of potential practices is made possible, whereby *speed* and *ease* seem to lead to an increased use and hence influence. Web-based tools, platforms and applications can, in principle, enable users to (co-)create, share, modify or otherwise engage with content over the Internet.

Even when people do not make use of the available technology themselves much, it is widely assumed that society is transforming into a 'digital culture', breeding certain expectations, behaviours and attitudes that increasingly enter into various spheres of life and need to be reckoned with.

Deuze (2012) distinguishes three key elements characterizing this digital culture:

- Participation
- Remediation
- Bricolage.

Participation sees people as active agents in the process of meaning-making. Remediation, a term first mentioned by Bolter and Grusin (1999) and widely embraced by new media theorists, means to adopt but at the same time modify, manipulate, and thus reform consensual ways of understanding reality. And bricolage is about reflexively assembling our own particular versions of such reality.

Due to the advent of the smart phone, media use is no longer restricted to a specific physical space. Currently and presumably even more for generations to come, the ever-increasing presence of media indicates that media are being used intensively (Westlund, 2014). Digital technologies hence become integrated in all aspects of life. For young people this goes as something unnoticed, the immediacy of media has become so normal that they are often taken for granted. The newest generation has already been coined 'screenagers', although the idea of the screen may change as well, following new developments such as Oculus Rift, the Internet of Things and smart watches.

Young people are specifically becoming:

- Multi-layeredness
- Media cross-overs
- Connection everywhere-and-with-everything
- Immediate responses.

One single message or channel does not seem to suffice as is visible in TV formats, for instance, where more and more mimic screen lay out and interactions are added through a 'second screen'. In this media life people are connected with the world in two ways, often at the same time: *physically and virtually*. Especially mobile devices make us relate to the world both physically and digitally, they become an interface for 'hybrid spaces' (De Lange, 2012). Social processes like working, living, travelling and spare time have, especially for youth, a digital component. To illustrate: people navigate to our location with navigation systems, they discuss a meeting place online, they are invited for an event or informed about it via online channels, they look for hotels, in some cities public transport is only available with a chip etcetera.

Audiences – or 'the people formerly known as the audience' as Rosen (2012) would say - are also becoming more and more producers themselves, enabled by easily usable creative digital tools. This may not make each and everyone into a good content producer or real creative designer but it does seem to fulfil a desire for creativity or rather the notion of playfulness. This too seems to be another key element of today's engagement with media. More than about action, these tools are stimulating playful social interaction.

Audience activity at production level is in social theory expected to increase whenever individualisation is on the rise, fed by needs for:

- Self-realisation
- Self-expression
- Self-representation
- Self-reflexivity (Carpentier et al. 2014).

Individualisation combined with globalisation results in multiple overlapping affiliations, belongings, identities and lifestyles. Social change perceived as process means that parts of the past may become rearticulated. Social processes interact with new media and communication technologies, creating complexities in contemporary audiences that will need unpacking in each situation, in different networks of belonging clustered around:

- Lifestyle
- Socio-economic circumstance
- Interest
- Personal motivation, etc.

The increased complexity of social processes and communication technology taken together result in many coexisting (media) practices, and hence a larger variety in modes of engagement. It is widely assumed that evolving media participatory technologies and practices will result in increasing desires to communicate. This will result in a proliferation of expressions and require more preconditions for participation and inclusion. For this to happen in an ever more proliferous media landscape, cross-communication between separate networks and platforms is said to be necessary. Audiences are believed to operate as users and distributers; spreading content over shared platforms that will allow for unfinished stories to be improved, independently of established organisations (ibid.).

This research will consider to what extent theoretical considerations are confirmed.

3.4 Unmediated heritage and living media: Perceptions, attitudes, and practices of Dutch youth

With the help of individual stories and self-organised activities - both offline and online - personal needs, perspectives, practices and attitudes towards cultural heritage in contemporary daily lives will be identified. Special attention is paid to young adults who organise their own time and are familiar with the use of social media and digital technology.

3.4.1 Unmediated heritage perceptions and attitudes

What is considered 'heritage' by young adults?

One young adult in the pool of research participants was consciously preoccupied with her heritage due to the fact that she was on the brink of migrating to the United States to join her African-American Muslim husband. As a daughter of migrant parents herself, she wondered to what extent her future children would still be part of the proud southern Moroccan Amazigh culture of her ancestors. During the months of contact with the authors of this chapter, she spent a lot of time with her parents, asking them all sorts of questions and she acquired many newly bought items from Amazigh origin to be shipped to the United States. She even went so far as to investigate the country of origin of her parents through voluntary work in *Museum Tiskiwin*, a private ethnographic collection in Marrakech (Morocco). She asked her mother to come over from the Netherlands, so she could hear stories about the items on display from personal experience. Her mother obliged and happily demonstrated various utensils, remembered folk beliefs and matter-of-factly mentioned she had, like so many others, sold her silver Amazigh bridal jewellery at the time of migration. All other material belongings and lifestyle were left behind. No more sitting on the floor or cooking on natural fire. But after decades standing behind a modern stove in Northern Europe, the old woman's legs folded very smoothly when she assumed postures from her past, in a desert tent on display.

Figure: In museum *Tiskiwin*, Marrakech

This young woman, an anthropologist by education, turned out to be an exception to the rule in the sense that she consulted an ethnographic (private!) collection during her background inquiry. The remainder of the young people who were contacted had never set foot in an ethnographic museum, nor did the thought ever occur to them. They would turn to information online, in addition to travel and relatives. The overall image to them of objects in museums turned out to be unappealing: 'boring', 'old fashioned', 'stuffy' and 'static'.

Some other widely held views: 'You don't need the original; an image suffices.' 'You are not allowed to touch the objects behind glass.' 'I don't know if I get my money's worth; I don't know what to expect.' One person walked past an ethnographic museum on a regular basis, that in principle interested her, yet she never went in. And there are those who avoid ethnographic museums because they want to stay away from remnants of colonialism.

Attitudes will be nationally biased too, for instance Dutch and Flemish youths prove to lag behind, compared to their peers in other European countries, when it concerns traditional culture (De Haan et al., 2003). Furthermore, 'heritage' seems to be associated with tradition more than culture in general. A majority of Dutch youth does show an interest in culture in general (68%), motivated by different desires like wanting to actively participate in social activities, or seeking self-development (YoungWorks, CJP and Motivaction 2014).

The majority of young adults involved did not engage with heritage at all, at least not consciously. This may have to do with the stage of life and being part of a majority that takes its cultural transmissions for granted. The exceptions were those living in rural areas, in smaller towns or villages, with strong local traditions or a different language. One of these young adults is himself involved, since early age, in the construction of flower floats for the Zundert floral procession, which began in 1936 and nowadays attracts growing amounts of international spectators. The tradition, showcasing mainly Dahlias (according to some 'poor man's rose') got interrupted during WWII but other than that passed on from generation to generation, socially embedded in local – competing – neighbourhoods and the school's curriculum. The participants occupy the regular bandwidth of tensions between conservative and innovative contributors; this, so we were told, keeps the heritage dynamic and alive. The following illustration shows a prize-wining contribution.

Figure: Floral procession, Zundert (source: traditie.nl)

The only other young people who consciously dealt with heritage, at least for a while, were those who felt 'othered' due to their cultural backgrounds.

> *"Oh, am I* different*? Well, then I'd better find out what those differences are."*

And they would then start to seek information online, through family members and if possible travel to the so-called source countries.

The intensity with which 'roots'-research takes place differs per individual; various interviewees had siblings who would be more - or on the contrary far less - interested in their cultural background. Others even resented the entire 'roots' discourse completely:

> *'I went to Ghana to meet my relatives. If you visit your grandparents in the province do* you *call that "going back to your roots"?'*

Most of the people spoken to who resented the roots-discourse were urbanites with highly mixed cultural backgrounds, and a cosmopolitan lifestyle and worldview, but not necessarily well educated.

When asked what they would consider important to keep from their upbringing to pass on to the next generation, those with some sort of minority background in the Dutch national context mentioned: language, food, values, celebrations, religious festivals and family traditions. Others would highlight international contemporary youth culture, including music, dance, film, clothing and urban or rural lifestyle. Some also mentioned digital diaries (such as disappearing Hyves).

A large amount of young adults in The Netherlands (25 – 30%) feel as if they fall between two stools; they are neither, nor and actually of at least two different nationalities and heritages. One example is a Dutch-born Turkish graphic designer. He literally investigates the double images he has been brought up with and remixes those into something new. For example a Turkish children's story (Ali and Aysa) transposed into an alike Dutch storyline (Jip and Janneke) in such a way that his younger nephew will understand both layers. That way the next generation need not grow up between divided worldviews, images and stories; one at home, another at school. His next project is aimed at adding Turkish-Dutch imagery into daily life in The Netherlands, as he misses imagery belonging to his full identity in society.

Another of our research participants, in slang referred to as 'banana' (Chinese on the outside, white on the inside) remixes his multiple identities into new Asian food creations; he uses his backgrounds as source of inspiration for new creation and strongly believes in creating new ethnicities and transnational networks, despite stereotypical framing in society.

Most interviews took place during the autumn, the time of year when the ongoing debate in the Netherlands over how best to update the tradition of *Zwarte Piet* (black Pete) is most animated. According to a 2013 survey, 92% of the Dutch public do not perceive this character as stereotypical, racist or associate him with slavery (http://en.wikipedia.org/wiki/Zwarte_Piet). In 2014, fights broke out in several bigger cities between pro-Piet attendees and anti-Piet demonstrators, whilst national television proposed a make-over strategy. This historic moment provides an obvious illustration of heritage being contested due to a context of change, probably best characterised in this case as unfinished decolonization. Regardless: our interviewees all spontaneously referred to the ongoing debates. Those in rural areas felt it as a lot of irrelevant big city noise; cosmopolitan urbanites felt ashamed that this discussion was still needed in a modern Western democracy. Polarisation got especially visible online, not so much by the amount of 'likes' reflecting the 2013 survey, but through the open hatred against 'others'; newcomers with the nerve to contest existing heritage. 'Go back where you came from!', 'Keep your hands off our tradition!'. A notion of the Netherlands as a tolerant country seems to be false, lost or at least under pressure. Anthropologist Sunnier (2012) sees the Black Pete debates as a typical example of the contemporary necessity to renegotiate all ritual meaning within society at large. Black Pete was, in any case, the trending topic of all social media in 2013 (https://youngstartup.nl/blog/post/zwarte-piet-meest-besproken-op-social-media/). Sunnier is of the opinion that developments in digital communication technology have caused a shift (2012, 62) in the sense that religion, tradition and heritage have now all become part of the public domain. More than ever before, authorities and organisations consequently lose influence, and multiplicity of voices increases.

Figure: *Black Pete has to stay, sign the petition* Facebook

Figure: Black Pete make-overs

The conversations with the research participants were in any case highly influenced by this actuality. All participants with some sort of multicultural background spontaneously mentioned a need for bridging social gaps. Eating together, getting to know each other locally, that would diminish fear, was an often heard suggestion. Others emphasized that inclusion would need active engagement of stigmatised minorities through organizing neighbourhood activities and events that could instil *pride* about different (cultural) backgrounds.

The young adults stressed that the dominant Dutch notion of having to be loyal to one cultural setting alone (an essentialist interpretation of 'culture') needed changing into freedom of choice.

Most have a dynamic relationship with heritage, mixing different influences. They aim for a society in which differences are embraced, accepted and celebrated. In the young, future oriented cosmopolitan part of our small research population change was considered a *good* thing rather than perceived in terms of loss. One vital example of this is the young woman addressed who decided to work with her Ghanaian background after coming of age. Triggered by the Black Pete debates she insisted – like many others – on showing some African pride, in her case through fashion. She uses African textiles and styles them into trendy wear. Her father delivers the fabrics, her aunt provided sewing lessons and she set up a webshop, though she sells more at festivals like the highly popular Afrodance revival events. African Fashion is on the rise, worldwide, including initiatives like the *Daily paper collective* that combines Western styles with African design, describing their brand as "translating African heritage instead of copying… the prints become less 'folklore' and more contemporary."

Figure: Daily Paper clothing

Unmediated heritage practices

Others may not want to change tradition or folklore and may prefer a nostalgic stance, expressed in dedicated *lieux de memoires* both online and offline. For instance, there are over 300 self-organisations based around Dutch East Indian heritage, alone. On Facebook memories are elicited through old photographs and food recipes, and information about events is exchanged: usually regional reunions, fairs and festivals or cultural events including traditional music, dance, theatre and film. In 2014 an NGO *Het Indisch Herinneringscentrum* ('The East Indies Memory Centre') undertook a new initiative: an articulated lorry got converted into a museum-on-wheels designed for small children, to pass on stories, images and memories about the former Dutch East Indies. However, one of the largest organisations, the Tong Tong Fair, attracting tens of thousands visitors on a yearly basis for over 50 years, struggles despite its expertise and experience, to set up an archival system.

Whereas the second generation often kept rather silent about this background, either feeling ashamed about the colonial past of their parents or due to war trauma or because of internalised assimilation policies; from the third generation onwards pride is in vogue. The Facebook page *Indisch 3.0* is a virtual monument to this turn. This group finished its public initiative in the autumn of 2014, due to the arrival of the fourth generation. The pregnant 3.0 women felt they had done their bit for the common good. These so-called third generation post migrants are being referred to as an 'eclectic renaissance' (Pattynama 2014, 224). This again resonates with the 'third culture' concept and other dynamic notions of culture and heritage as it means that each post migrant individually picks and chooses elements from a source country, to be recycled for contemporary use.

There is one hugely popular recent phenomenon in the Netherlands, with both first-generation elderly citizens, as second-generation Dutch-born youth: theatre performances and films based on handed down personal stories and documents by the artists' relatives[86]. These events drew large audiences who usually do not visit cultural venues, because they could personally relate to the performances. Emotions soared, prolongations were necessary:

> *'Finally our stories are being told, thank you!'. A catharsis could be sensed with the elderly, tears were shed, and one could argue that these performances and films help constitute 'imagined communities'.*

Both second generation post migrants as well as third generation apparently feel attracted by artistic interpretations of authentic (hi)stories from the previous generation.
However, the present has its attractions too. In the summer of 2014, for the very first time, a Dutch-Moroccan barge took part in the *Amsterdam Gay Pride* canal parade, showing all participants dressed in a pink djellaba, designed for the occasion. This was considered a moment of such historic significance, that one of the pink djellabas was collected by the *Amsterdam Museum* as part of the city's cultural heritage. This museum is an example of various city museums in the Netherlands that aim to contribute to mutual understanding among people with different cultural backgrounds through telling (his)tories with and about *all* inhabitants, though this so far happens rather ad hoc. An often mentioned danger in this can be that of 'boutique multiculturalism'[87] whereby diversity is celebrated in so far as it does not interfere with a dominant lifestyle. For instance: Muslims may well be accepted when they are not against gay people, but what if they do not and may want to wear a niqab or burka?

[86] Moroccan-Dutch actor Nasrdin Dchar with his film *My father the expat* and the theatre piece *Oumi* about his mother; Antillean theatre maker Raymi Sambo with *Dead without a cause* about a culture of shame and AIDS; Diederik van Vleuten's one-man show *Something spectacular got done out there* based on his great-uncle's Dutch East Indies archive.

[87] Fish, 'Boutique Multiculturalism, or Why Liberals are Incapable of Thinking about Hate Speech', in: Critical Inquiry, 23(1997)2, pp. 378-395.

Figure: Gay Pride canal parade 2014 (photo by: Bram Belloni)

Figure: Moroccan-Dutch *Gay Pride* djellaba (photo by: Bram Belloni)

The initiator of the Moroccan-Dutch barge, one of our research contributors, recalls that originally the *djellaba* was meant to be an amalgamation of Dutch and Moroccan national colours, but as they lacked funding to achieve multiple colouring, they had to decide on a cheaper design. The decision for a modest garment, to be worn unanimously, as opposed to near naked chaos on other barges, was the paradoxical outcome of a lengthy negotiation process in which contesting cultural values had to be merged. On the one hand a typical Dutch liberty was achieved, on the other hand respect had to be paid to Moroccan and Muslim sensitivities.

This case is an illustration of contemporary cultural heritage in the making. It originated as so-called 'unmediated' - as it originated from a small group of self-organised individuals - to end up as 'mediated' in a museum collection.

In Rotterdam another unexpected connection between unmediated and mediated heritage originated bottom-up. Three hip-hop dance teachers decided in 2002 to start a neighbourhood studio as an indoor alternative to cold wet streets, for talent development in hip-hop art, music and dance. Within two decades this initiative has grown into the *Hiphophuis* (the Hip-hop home) that serves over 5000 local citizens. Its mission is to transfer and renew hip-hop culture, now into its third generation. The place has a collection of audio and video materials but digitising that is no priority; life lessons are. Inspired by initiatives witnessed in New York, they have embarked on a relationship with the modern art *Museum Boymans van Beuningen.* Between its director and the young *Hiphophuis* team an educational programme got developed in which school-going youth visit the museum where they copy a piece of art to take along to the hip-hop studio, where it gets transformed into graffiti. Street art meets high art; a local living heritage initiative.

Each city to its own. The Hague has nearly 10% Hindustani citizens, a result of colonial history which brought these two-step migrators from India via Surinam to the Lowlands. Consequently The Hague harbours the largest European Hindu temple and a specialised shopping district nicknamed 'Little India'. Within the Netherlands the Hindustani population shows the lowest rate of ethnically mixed marriages (in Amsterdam 25% of all registered marriages are mixed). Like anyone else these individuals relate to their heritage through celebrating religious festivals, enjoying food, music and dance traditions through following classes and visiting fairs as well as events – be they classic, traditional or remixed contemporary. In our small sample the young adults seem to preserve transgenerational values and culture of origin more than other cosmopolitan urbanites in our pool. The Dutch-Hindustani young adults felt real world citizens due to their specific migration history, which they cherished by means of their own 'place of memory': a small dedicated museum the *Sarnami House*, though they never actually went there. The fact that it exists appeared to matter, as a token of endorsement. However, due to the disappearance of subsidies for ethnic minority museums as a consequence of national policy changes, this museum currently only remains online, focusing on organizing events. Cultural and migrant communities are since the policy change meant to integrate into mainstream institutions for preserving and maintaining their identities.

Anthropologist Verstappen spent 15 months among Dutch-Surinam-Indian families and found Bollywood cinema to be of huge importance, as part of the cultural heritage package, in particular for those living in an Indian diaspora (Verstappen 2005). Her fieldwork dates from 2004, but through her old network it was possible to confirm that Indian cinema – and global news media – still play a vital role in contemporary identification processes.

Verstappen and Rutten (2007) concluded from their field research among Dutch Hindustani, that *otherness* gets emphasized when mainstream media fail to show recognisable social situations. This provokes a need for alternative ways of support, in today's world to be found in globally available media. The authors stress that such behaviour is not meant to '*de-link'* from a national environment, but that it is needed to live life in the Netherlands as it helps "by making them 'feel normal'…" (Verstappen and Rutten 2007, 230). Their conclusion is in line with the feeling expressed by our Dutch-Turkish participant who feels that the Turkish part of his heritage is too invisible in current society and yet he needs to see himself reflected to feel included. His disappointment may be one of the reasons that in general Turkish (post)migrants in the Netherlands mainly focus on Turkish TV stations (Motivaction 2014).

Polish immigrants too keep watching Polish broadcasting, even though they value the quality of Dutch national television programming (Motivaction 2014), And higher-educated Polish immigrants organized clubs around Polish cinema, science and literature both for themselves as to disseminate their own cultural goods actively. They ensure a steady stream of translated Polish literature into Dutch language. Such group spirit was not behind the *Berber Bibliotheek,* an Amazigh literature series. These translations originated from the individual passion of Dutch-Moroccan writer Asis Aynan. Since most Amazigh literature is only available in Arabic or French, languages not commonly taught in The Netherlands, Asis felt the classics needed preservation through translation. Only then would they become accessible to Dutch readers, including Dutch-Moroccans. Aynan, proud of his Amazigh literature roots did not rest until he got it all organised; several titles are now available in print, more in the pipeline.

The majority of living heritage in The Netherlands is more down to earth and monocultural. A telling example is *Zwarte Cross* (Black Motocross) in the rural Eastern part of the country. The explicitly non-establishment, non-urban festival started in 1997 as a motocross competition with a performance of the local rock band singing dialect. The mother of the manager of this band, 'Aunt Rikie', serves as the patron. Over the years the amount of visitors has grown to 185,000. Although it started out as a tiny grassroot illegal event, in recent years the celebration of regional music and motocross has picked up; making this festival the biggest commercial music festival of the country and the biggest motocross event of the world.

Figure: Zwarte Cross

Identified attitudes towards cultural heritage

The examples mentioned show a bandwidth of attitudes towards 'heritage'. Some want to preserve as much as they can, others want to reform gradually or remix fully, some use it for inspiration for the future others for recollections about the past. Individual taste, personality, stage of life and public debates all seem to exert influence. It can be argued that a digital *mentality* towards heritage reigns, in the sense that do-it-yourself prevails, based on individual passion and authentification. There also seems to be an increased need for visible diversity of multiple heritages in public offline spheres, including mainstream media and endorsement through public institutions.

In general the encountered associations about heritage mainly took place in offline realms, with only a supporting role for the digital. However, the online world has its own charms.

3.4.2 Living media practices

People go online to socialize through sharing information, thoughts and experiences; watch movies, listen to music, download, game, or buy 'stuff' (Elahi, 2014). Nevertheless, research emphasizes that the relation of people to social media is extremely heterogeneous in the sense that one person may be far more involved than another (Westlund).

Social networking sites

Again driven by 'othering' in society, do we see increased activity around identification issues in the digital realm**.** De Koster (2010) stresses that online worlds always interrelate with offline social life and investigated motivations behind participation and clustered varieties of online togetherness accordingly. He arrived at a typology of social functions that could resemble attitudes that were encountered. He finds people seeking 'refuge' (supporting each other in an environment of social rejection), 'stepping stone' (finding out how to live life best), 'social movement' (civic engagement and activism) and 'neo-tribe' (sharing a way-of-life). De Koster demonstrated earlier (2008), when studying Dutch right-wing extremists, that offline stigmatization under lied their virtual community formation. He suspected this to be a mechanism with wider relevance. However, explicit social rejection is not the only force that drives people to insular behaviour; as noted earlier a mere underrepresentation in society can have the same effect.

Elahi (2014) investigated for what collective needs specifically *ethnic* websites are used, and found that these are experienced as a necessary 'safe' environment in the Netherlands, catering to immediate mutual understanding, information, advice and culturally specific entertainment. Information sought includes topics like religion, wedding rituals and country of origin:

> *"Young people are not just 'downloading' information, music, and pictures; they are downloading their culture. Internet is the gate to the source of their culture. The difference with 'offline' ethnic institutions lies in the fact that the ethnic websites transcend localities and boundaries. They are functioning as ethnic institutions that connect ethnic groups from around the world. Therefore, ethnic websites are not only reinforcing national ethnic identities, but also transnational ethnic identities." (Elahi 2014, 200)*

As research among British-born Chinese indicates: retreat into clusters defined along ethnic lines may appear divisive and insular but seems constructive for a reflexive reformulation of mixed cultures

> *"in the context of multicultural societies still structured by racialised inequalities and Orientalist stereotypes. Participation in online dialogue, which often entails an intense self-questioning and probing about presumed truths, demonstrates the ways in which users host a self-authored commentary on the many social and political issues they, and other ethnic minority people, encounter…" (Parker and Song, 2007).*

Leurs (2012) investigated *how* the web is being used for networking and identity forming purposes, among Moroccan-Dutch youth. He points out that online spaces can, in principle, subvert existing offline power relations. When you are considered 'out of place' in offline social contexts, the digital realm can provide an alternative template. However, in the digital space there remains uneven ownership and access, literacies and skills, and each platform has different restrictions or possibilities. There is no neutrality on the net either; across digital spaces people tend to be empowered and disempowered simultaneously, according to Leurs. Yet in the digital space the layeredness of identities is clearly visible and cross-overs are much easier to manage. He concludes:

> *"At certain points, the online and offline world overlap or augment one another and at others they collide, providing room for re-signification. […] while they are often considered the other, in their everyday digital convivial encounters they nevertheless also constantly create and connect new passages between their Dutch, Moroccan-Dutch, Muslim, diaspora and youth cultural belongings."*

Online forums function as self-organised support systems in general; this seems equally the case in relation to cultural heritage. Digital technologies also make an imagination of diaspora available. Often these networks have their offline counterpart, mostly through events they organize or promote.

Content creation

According to the so-called 1% rule most people do *not* actively create any content, a reality to keep in mind when looking at the following examples. It is difficult to find the right criteria for selecting cases and each sample is debatable. Some 'media rich' examples were chosen here. However, despite the enormous potential in the digital realm, relatively little creative use in relation to cultural heritage was found in the Netherlands.

The typical digital culture characteristic of 'remix' is very common in the music scene, but many more digital attitudes and technologies can be integrated, as the Dutch portal 3voor12 shows. While blogging (and filming and taking photographs) a handful enthusiasts unconsciously built up an online archive. One local strand, 3voor12/Utrecht, decided to publish a photo book with a selection from its own online collection, portraying a decade of pop music in the city of Utrecht. Funded through crowd funding and sponsoring, the publication in print aims to consolidate and commemorate the city's pop music scene.

Contributing bloggers not only create their own content (interviews, videos, reviews, radio broadcasts), but also list and promote music events. They function as unofficial curators for the vast online presence of music, because through their selections they operate like a label used to do: promoting what they think is good and worthwhile. In addition to this, some platforms organize music events themselves, like Subbacultcha.

The bloggers use whatever digital tools they need to publish about music and connect with their followers, usually aged 18-38. Mostly they combine a self-made website, Facebook page, Twitter account and YouTube Channel. On top of this, 3voor12/Utrecht, collects all music videos of Utrecht based bands in a YouTube Playlist, embedded on the home page. They also film performances themselves and built an online videomixer in which viewers can live-edit the videos for themselves. This tool is embedded on the website and shared through Facebook. Other initiatives focus on music videos alone, like In de kringloop, filming acoustic sessions in a second hand shop (total views 525.492), and New Sounds of Europe (based in The Netherlands but aims to cover all of Europe), that films sessions at unexpected places.

Another 'media rich' example is MalukuCinema.nl, a website two Moluccan brothers initially made to promote their films and theatre productions, which however turned into a platform for several Moluccan communities. Their film 'Jefta' is the first movie made by members of the Moluccan community in the Netherlands. In the film, a couple is

> *"going to marry according to Moluccan traditions. The wedding takes place in a Dutch landscape with the warm sounds of singing together, the tifa and the totobuang. It's a beautiful picture of East and West coming together*.' The rest of the film will also highlight Moluccan beliefs and practices. As the makers state: '*The movie gives you a good insight how the Moluccans live in the Netherlands. How they stand their ground in modern society."*

The makers used crowd funding for the realisation of this film, *not* using existing crowd funding platforms. They seem above all concerned with passing on Moluccan customs and knowledge and use film (and theatre) to fulfil this desire.

> *"We make this film to show the world who we are; we don't film history, we make history through this film*!"

The brothers often use Facebook (2,284 likes on 26-2-2015) and Twitter to promote their projects. During filming, they used Instagram for behind-the-scenes photo's as well as a weekly Vlogs. However, the site is more than a self-promoting tool; it serves as a platform, connecting people both online and offline. Their social bonding capacities show through stories posted. One young woman is such a fan of the brothers and their influence on maintaining cultural heritage and social cohesion that she tattooed their logo on her arm.

Figure: Maluku cinema logo as tattoo

Another young woman explains how she retrieved a nearly lost music and dance tradition and uses this in-group networking site and its media richness to transmit cultural tradition. Her post 'Transmitting knowledge makes me happy' including an amateur video of a performance got over 19,000 views, displaying a characteristic 'messy'ness that Gauntlett (2011) refers to as DIY (do it yourself) feature, communicating 'I can also do this!' It is just as well that individuals take up this need to preserve and communicate their interpretation of cultural heritage, albeit on amateur terms, since the authorised Moluccan Historical Museum in Utrecht had to close its doors and put their collection into a depot, due to policy changes and hence disappearing funding. This museum attempted to combine amateur multivocality with professional expertise. Its former director stresses the need for a space to share heritage, history and culture on *own terms* and wonders to what extent that may ever happen inside mainstream institutions with an overall white middle class staff and fairly single track (colonial) perspective on Dutch history – the Rijksmuseum being a point in case.

Gauntlett, like other theoreticians, emphasizes that so-called amateur people use online media to create their *own* worlds which helps building resilience to deal with such challenges. This, combined with another key element of today's engagement with media, playfulness, we see demonstrated in the example of for instance *Mertabi.*

Mertabi, real name Mert Ugurdiken (21), is a highly popular Dutch vlogger, who developed an online series of funny video sketches *Moroccan gives driving lessons* (Marokkaan geeft rijles). Mertabi himself has a Turkish background but makes, as his alter ego 'Mo', fun of Moroccan culture. Such mutual mocking between Turkish and Moroccan post migrants is hugely popular online; they find each other in a shared history as so-called 'guest workers' in the Netherlands. The sketches became so popular (800.000 views per episode, total views 10 million in four years, nearly 240,000 subscribers) that Mertabi quit law school. His humour stands a chance to reach an even wider audience, now that a commercial television broadcaster offered him a contract. However, it remains to be seen if he wants to give up his independency in exchange for more professional production facilities and exposure.

Figure: Mertabi Moroccan gives driving lessons

The most popular Dutch You Tube star is Enzo Knol, with nearly 600,000 subscribers and 34 million views a month of daily vlogs he puts online about his daily life. His young audience prefers watching these clips over mainstream television as 'This is real, the rest isn't.' Does its content and popularity make it into living contemporary heritage? Knol films himself, when he has breakfast, cleaning the fish bowl, playing games, telling about his parents' divorce, or getting bullied, and more of such self-exposure "to help viewers who are in similar difficult situation". Most of his viewers are aged 10 – 18 and part of his popularity might also be explained by the fact many of his posts are about his adventures with *Minecraft*.

This worldwide game phenomenon may contain answers about how to engage with contemporary youth; what makes Minecraft so immensely popular? Its looks are considered ugly by many: the opposite of glossy photorealism, simplistic block graphics. The game itself does not follow any narrative structure; it is all about building something yourself or together with others. The high DIY component is thought to be the main attraction of this digital LEGO kit. The results get shared on You Tube, with exploding amounts of views. After weeks or months of building something together, the players are proud of what they resolved (mined) and crafted. An additional interviewee, 12 years of age, explains over Skype:

> *"You can make anything you want! From a villa in India to a hut for the homeless. You make your own world, you can find anything yourself and make anything yourself. That makes it fun. And different. Whatever you do, you can always give it your own touch. You can make a world with a castle. Or one with a robot. Or one with both. You can do anything you want. And you can do it with friends." (compiled from larger conversation)*

He carries on full of enthusiasm about downloadable maps, a feature that Tate Modern currently offers too, reaching out to children and teenagers: art reimagined for Minecraft with a series of virtual environments based on specific artworks. It allows players to create their own virtual worlds, using the paintings and sculptures, to generate activities that relate to the themes of the artwork.

Figure: Tate Worlds art reimagined for Minecraft

Digital culture attitudes

Remediation and bricolage are the terms used in new media theory for what is often being referred to as 'remix' culture. With a lot of easy-to-use software tools, sharing possibilities and open source information, young people in particular acquire a flexible interpretation of originality. Nowadays, originality seems a reservoir of old traditions to be used in new ways.

Traditional patterns are appropriated and put in new digital visual art or fashion, old instruments and melodies are used in hip-hop music, heritage objects can be printed with a 3D printer and memories are created, through sharing digital images.

Thanks to open access DIY technology everyone can become a curator, critic, journalist or cultural entrepreneur, etc. The hierarchy of institutions like mass media is surpassed as it is easy to build websites, platforms and web shops, to offer goods, services and opinions. The social dimension remains important though, because of the reliance on recommendations (digital 'word of mouth'). Getting good rates about what you offer - or having enough followers - matters, so people are presenting themselves and their goods and services the best they can.

Young people grow up with the notion of an unlimited amount of information; a digital media nirvana. Some say it leads to infobesitas, an unfiltered (less gatekeeping therefore less reliable) information overload where we do not know what and why to choose anymore. This, combined with increasing attention fragmentation results in the average media and information consumption nowadays being referred to in terms of "snacking". The attention span is short and is filled with short messages and a lot of images. Especially the rise of the smart phone plays a role in this, since a smaller screen makes people less eager to read long texts.

On the other hand, platforms that curate information are growing, commercial ones like Pinterest, Netflix, Spotify, and Facebook – all with invisible selecting algorithms – and personal alternative ones, like the Utrecht music case showed.

Nowadays people want and expect unlimited access to everything. Information should be easy to find, preferably based on their personal terms and interests. This has an economic impact as well, as many things are in easy and (almost) free reach, so this will be what especially young people are looking for. They do not want to endlessly subscribe and commit; they want full, immediate access everywhere, anytime and via any medium or channel they favour.

Another interesting development has been coined 'the ephemeralnet'. Because everything is saved and can be accessed unlimited, everywhere, *Snapchat* has become popular, providing 'old fashioned' limited temporality: messages can only be viewed for nine seconds. They will be deleted immediately, therefore who does not want to miss it, has to pay extra attention. This app is said to support intimate contact and spontaneity (Adformatie 2014). This development may mean that for young people saving data is not a logical option in the future, whereas at the same time the assumption is widespread that data are being stored in infinity, while in fact digital data need to be consciously archived.

3.5 Combining unmediated heritage *and* living media

The findings reported above enable us to shed light on how a diverse population of Dutch youth relates to heritage online and offline, and in parallel what opportunities arise for further engagements, which can be exploited by cultural heritage institutions. Central to the youth's dynamics of relatedness with cultural heritage is a fluid and flexible understanding of culture, heritage and traditions. Thinking beyond concepts of 'decay', 'salvage' and 'loss', ***change*** is considered the main heritage value. Culture is not perceived as a set of immutable, binding traditions, rules, norms, and rites, nor is it embedded uniquely in a bundle of objects bearing a heritage patina.

For many Dutch youth, culture is distinguished from heritage. Rather than being transmitted or receiving it as something *that is*, Dutch youth appropriate culture as an open field of engagement: culture becomes valuable through the act of doing, engaging with it, integrating it in live practices and in this process producing something new. Cultural practices are highly heterogeneous, going from representation and replication to interpretation, modification or integration of cultural patterns and themes in completely new forms. They can be pursued as mere entertainment, or as elaborate engagements in art, film and music production. Some of them are purposeful, conscious pursuits, where the youth are aware of the underpinnings of their actions, and their meaning. But they may be also be enacted out of interest and passion, and considered regular entertainment, rather than cultural activities.

This study appears to confirm findings mentioned in other publications such as Alivizatou (2012), but also provide some fresh insights, particular to the Dutch context. For instance, with reference to global as well as local perspectives on the safeguarding of intangible heritage and its museological articulations, Alivizatou affirms that:

- people engage in cultural transmission and identity work in many places, moments and channels *outside* formal institutions
- they fit ideas of *impermanence* and engage in fluid, unfixed *processes*
- the aim in negotiating ideas of identity and contemporary engagements with the past seems to be *transformation*
- some seek *endorsement* by formal institutions of practices outside formal sectors
- notions of 'authenticity' are shifting; immediate access to digital reproduction suffices
- *inclusive* fluid intercultural frameworks are needed; *links* instead of dividing lines

Some of these are confirmed for the case of Dutch youth, in particular the propensity to engage in cultural practices outside formal institutions, shifting notions of authenticity, and acceptance and endorsement of (cultural) diversity. At the same time, Dutch youth appear to be less interested in heritage, and when they do engage in cultural practices for many of them these are perceived as entertainment rather than cultural engagements. Exception make rural communities and minorities. The former may cherish long lasting cultural traditions and practices which are still endorsed by the youth. The latter engage with cultural search in an attempt to get a better understanding of their history and roots, and as a step towards configuring their cultural identity.

Another aspect where the Dutch context appears to be distinguished from other European countries is the low number of online heritage initiatives and sites, which shadows an expressed low level of interest in heritage. At the same time, there is an affirmed low interest in heritage, articulated in response to direct questions, may be misleading, as youth may engage in cultural practices in ways that are specific to their interests and passions, and may not be regarded as 'cultural practices' by themselves, according to their own concepts of culture. Access to culture nowadays takes many forms, shaped by personal interest and integrated in entertainment practices. For European youth, participation in arts activities (e.g. attending a theatre play, visiting a museum) tends to be lower than cultural consumption (e.g. seeing a movie in the cinema) (Interarts, 2008). An example of a Europe-wide movement that bridges entertainment, cultural consumption, and cultural practice is the Maker Movement (considered further within the next chapter), characterised by an increased interest in craft activities, from knitting to wood work, in all postures from maker to consumer.

The Maker Movement went hand in hand with a revived interest in ethnic arts and folk motives, patterns and lines, re-appropriated in different domains, from arts to architecture and fashion. As shown in these investigations, the online medium had a very important role in expanding the scope and outreach of the Maker Movement, and constituted a fertile space for the formation of online communities of interest which spread information, exchanged resources and in some cases went so far as to unearth forgotten techniques, materials and ways of making. This is a vivid example of how European citizens, and particularly youth, engage in cultural activities on their own terms, and make culture part of their lives, an extension of their regular activities.

While acknowledging the high level of heterogeneity and diversity in both attitudes and practices, this study purports that in order to understand how AHI can engage with youth, it is necessary to get hold of youth attitudes to culture and heritage, and the forms taken by their interests. To this purpose, the next section sums up attitudes to cultural heritage and cultural practices as a series of over-arching themes. These are further used in the subsequent sections to configure the grounds upon which a more fruitful dialogue between youth and AHI can be enacted.

3.5.1. Dutch youth attitudes to culture and heritage in situated and offline spheres

The following five over-arching themes **characteristic attitudes** to culture and heritage, online and offline, were elicited from the empirical research:

Flexibility, multiplicity and choice

Living in a multicultural society puts its mark on the cultural attitudes of young Dutch. The youth involved in the study did not perceive culture as something that is passed onto them, and has to be accepted as such. Nor was it perceived in terms of *one culture-one identity* that one is bestowed upon by merely being born and raised in a socio-cultural milieu. Rather, young Dutch's conception of culture is characterised by underlying ideas of multiplicity, fluidity, flexibility and, most importantly, freedom of choice. One can – ideally - choose one's identity, and this does not have to correspond with the ethnic identity of its parents and forefathers.

Nor does it have to be *one* cultural identity. This conception of culture goes hand in hand with an acceptance of diversity of cultures, lifestyles, and choices made by others inhabiting the same social space. By allowing themselves to choose one's identity, young Dutch also accept that others have the freedom of making the same choice. Not intervening in others' approach to seeing and living culture and embodying one's identity is just as important as the freedom of choosing to adopt an identity and a lifestyle by oneself. Even though in reality not everyone has a lot of choice, the attitude is pervasive in Dutch society (which may lead to stress when not realizable).

Culture vs. heritage

This dynamic and eclectic view of culture is reinforced by the distinction some Dutch youth appear to make between culture and heritage. Culture is associated with contemporary lives, it is embedded in lifestyles and is a practice of the present. Heritage, on the other hand, is associated with the past, it is the set of cultural instances, tangible and intangible, transmitted from the past. Dutch youth appear to have little interest in heritage as such, except minority cultures, whose particular understanding of culture is tackled more at length below. This lack of interest does not suggest an emptiness of cultural meaning, but rather a change of perspective, in which the present overrides the past. Young Dutch may be less interested in a heritage that they are to pass over from the past to the future, because they are right now creating this heritage.

The culture that is now lived and experienced will somehow make its way down to the future generations. This relates as well with the interest manifested in intangible, rather than tangible heritage. The value of objects is significantly lower than the value of cultural practices that can be (re)instantiated in the present, such as music and dance. It is interesting to examine, in relation to this, how Dutch youth with a minority background look at heritage differently from regular young Dutch. When asked what they would transmit further to their children, the former mention instances aligned with uniqueness and singularity of a cultural system: language, food, values, celebrations, religious festivals, family traditions. The latter, on the contrary, mention instances of globalised cultures - music, dance, film, clothing, lifestyle, - all characterising the life lived by a young Dutch little preoccupied with her/his place in the chain of cultural transmission.

Culture as engaged experience

Dutch youth prefer to engage with culture in an experiential way. The most direct way of experiencing culture is through social gatherings, festivals, feasts and social celebrations. But culture can also be experienced through the act of making, representing, modifying or interpreting it. In either instance, the element of commonality is that youth refute the distance between themselves and cultural instances, they appropriate culture and make it part of their lives, their lifestyles. A correlative of this is that the politics of displaying objects, artefacts behind glass, museum practices that project a subtle distance between cultural artefacts and visitors – these practices are seen as alienated and alienating. They create distance, whereas youth want to delve into engaged, experiential practices.

DIY attitudes to culture

If culture as experience implies a loss of the sense of distance between youth and cultural heritage, DIY attitudes to culture suggest a more definite type of engagement with culture, one in which culture is rendered more alive, more present, and closer to the lives and lifestyles of young Dutch, through the act of doing. DIY attitudes appear to be highly influenced by digital practices. Just as they engage with appropriating, modifying, reproducing, interpreting and changing content and artefacts in virtual spaces, Dutch youth are interested and driven to engage with culture in a DIY manner. Engagements can take many forms, driven by individual passions and interest. The most elaborate of these are pursued by artists, who interpret, modify and integrate aspects of heritage in new forms of cultural and art forms, on a broad range going from visual art to culinary creations.

Being othered and the search for cultural identity

As mentioned above, Dutch youth manifest a low level of interest in cultural heritage. This differs for young Dutch who have grown up in rural communities with strong traditions, and for youth with a minority background. In particular, it was found that when being or feeling *different* and/or *othered,* young Dutch may intensify their engagement with cultural heritage as a way to reinforce, form or crystallise their identity. Some youth are aware they are engaging with a search for their roots, an attempt to understand where they come from to define more solid grounds for who they are. For others, however, this exercise is more of a social and human activity of cultivating relationships with kin and peers (e.g. visiting parents in Ghana) rather than a cultural practice, directed towards identity configuration. Whether conscious/purposeful or not, these practices appear to be associated both with cultivating a sense of belonging and the need to ascertain a solid cultural identity.

An important aspect is that even when animated by an interest in culture and actively engaged with searching for information, members of minority groups tend to overlook ethnographic museums as viable sites and sources for information provision and cultural engagement. This is largely due to the negative image ethnographic museums have acquired, as sites of remembrance of colonialist practices, displaying the culture of *the other* in ways that are condescending and may betray imperialistic attitudes.

3.5.2 Mapping barriers to engagement, opportunities and untapped potential for AHI

The way the youth engage with culture, at times purposefully, at times positioning their actions as entertainment rather than cultural activities, open up a vision on cultural engagement that is both challenging and promising for AHI. The sections below put forth a structured reflection on barriers and opportunities that can be leveraged by cultural institutions, focusing on the Dutch context.

Barriers to engagement with object oriented museums

Preoccupation with 'intangible heritage' and engaged cultural practices: Dutch youth relate better with intangible heritage instances that bear a form of continuity with contemporary lives and lifestyles, for instance music and dance. They prefer as well engaged cultural practices such as social gatherings, festivals, and celebrations. Objects do not present as much potential for engagement, and the sense of distance that comes from seeing them behind glass is a further barrier to engagement.

Heritage related activities take place outside formal sector, both online and offline: The youth are mainly preoccupied with cultural practices that can be integrated in their activities and aligned to their passions. They do not perceive culture to reside in a space that is external to their daily life activities, formalised, and monopolised by institutions.

Different value scales: There is a pronounced mismatch between heritage-related value scales withheld by youth and by AHI. The value of objects on display in museums and galleries resides in their status of authenticity or originality; moreover museums exist on virtue of the unquestioned idea that preservation of heritage matters, conservation and transmission are important links of cultural continuity. For youth, however, authenticity and originality bear little value. At the top of their heritage related value scale lies *change* rather than preservation and conservation. Re-positioning culture closer to their daily life and activities, modifying, integrating, changing, and appropriating cultural instances – these bestow a sense of value upon culture, rather than the display of objects behind glass in museums and galleries.

Negative image about (ethnographic) museums: The tendency is to perceive museums as sites that impose a sense of distance rather than engagement. The relation with youth's regular activities and preoccupations is very limited. This negative image is heightened in the case of ethnographic museums, which are perceived by many youth as institutions with roots in colonialist practices.

Dedicated small size ethnic collections, museums and organisations exist: The negative attitude towards museums is less against the practice of museums as it is with respect to their status of institutions, and the way they represent institutionalised approaches to heritage. More value lies, on the other hand on grassroots practices of preservation and display that may compete with those of larger museums. The key take away message in here is, again, that it is grassroots engagement (and the people) that confer value upon objects, not the objects as such on virtue of their material, aesthetic and historical features.

Museums lack visibility at popular venues (online and offline): This is a correlative of the fact that AHI and youth are active in different spaces – both online and offline, and links and bridges among these spaces are yet to be built. There are many sites of cultural engagement for youth, yet AHI are absent or have a limited presence in those spaces.

A series of **opportunities** got affirmed, yet these have to be tested in real life situations. Some of these opportunities also require museums to change their approaches in an attempt to engage youth. Firstly, youth appear to be animated by **strong interests,** which can drive cultural practices or cultural engagements as part of entertainment practices:

- The interest youth have in making, doing, and engaging with heritage to produce something new (DIY engagements with culture)
- Youth interest in engaging with interpretation of cultural content, which can complement curatorial interpretation practices
- Minority cultures with an interest in heritage, though often not aware or not interested in using museums as a source of material and information
- Genuine interest in multiculturalism and other cultures, acceptance of diversity

Second, youth are already engaged in a series of **cultural practices**, albeit in informal venues and spaces, which could be considered by AHI:

- Cultural engagements in online spaces, powered in particular by social media and focused on certain heritage areas (e.g. culture of a certain region or population, music, dance, certain types of dance etc.) or interests (e.g. hip-hop music)
- The existence of online communities clustered around interests, passions or certain heritage fields
- Offline groups and communities which use online spaces to augment, enhance or promote their activities – a wide variety ranging from groups celebrating cultural and art forms such as dance or theatre to groups passionate about a cultural heritage system or practice
- Live social gatherings, celebrations, festivals and events have a high potential of engagement, and attract thousands of youth.

3.5.3 Proposed strategies and action lines for AHI

Based on the considerations above, a series of strategies and activities for engaging with youth or building links to their existing practices, are proposed. These proposals stem from the conviction that museums need to re-configure their practices in response to contemporary multifaceted social and cultural environments undergoing processes of globalisation, permeated by cross-cultural hybridisation, but also sites of affirmation of unique cultural identities.

Towards story-centred and people-centred museums.

Museums' object-centred practices come against youth preoccupations with intangible heritage, DIY attitudes to culture, and the propensity to disregard the value of authenticity and originality. At the same time, youth's interest in putting forth their own interpretations, and in engaging with culture actively, as makers, can be used to re-configure the premises for visitor engagement with museums.

Objects can be given *different interpretations* from both curatorial knowledge as well as community involvement. This is not an easy endeavour, as power-related issues are at play. Yet, if achieved, the combination of curatorial voices and personal voices and experiences, can enable museums to become *more story-driven* than object-driven. These practices can also prove engaging for the youth, who may be enticed to participate in practices of representation and garner recognition, and get closer to people-oriented museums interested in forging links to the here and now. This approach is also prone to take objects off the centre stage, whereby exhibition work will therefore explore and negotiate relationships between formal cultural heritage and intangible heritage.

Some museums have already started to adopt this approach, or engaged in a slow transition from object-centred to story-driven and people-centred practices. These processes are greatly facilitated by digital technologies. In particular, some museums experimented with crowdsourcing, involving users in variegated interpretive and creative practices around the description and curation of collections.

Creating platforms for social & civic engagement.

To shed light on how museums can attract a larger visitor basis and build bridges and links to existing youth practices, it is useful to configure museums as spaces of engagement, spanning online and offline spheres. These are not limited to the space occupied by the physical museum, nor the online spaces focused on museum-sanctioned communications (e.g. website, Facebook page, Twitter account etc.). Rather, the museum can engage tactfully in activities and practices that take place in turns in the space of the physical museums, offline spaces visited by the youth, and online spaces, while all other spaces are used to echo these engagements – through communications, representations, calls to action, remote participation etc.

Underpinning this approach is the idea of the museum as space of connection between past and present, allowing 'an impermanent act of *dynamically* engaging with the past in the present, making traditional culture relevant to the contemporary global context' (Alivizatou 2012: 191). Mary Louise Pratt's concept of 'contact zone' can be enlightening in this respect. In the article "Arts of the contact zone", Pratt (1999) speaks about hybrid spaces inhabited by diverse groups and populations, often permeated by tension and conflict, and well represented by colonised territories, or areas with a history of colonisation. While struck with conflict, even violence, these spaces are also a fertile ground for the creation of new cultural and art forms which reside on the values, practices, semiotic systems, languages and vocabularies of different groups. Certain cultural productions, such as what she terms 'autoethnographic texts' are specific to these contact zones. Likewise, museums could become spaces of sharing where diversity of opinions, viewpoints and worldviews can be accommodated for the production of new art and cultural forms.

An example of a museum embodying this vision is the Dutch Rijksmuseum. With Rijksstudio, 200,000 artworks from the collection of the Dutch Rijksmuseum are presented online, to zoom in on, to touch, to "Like", and to use in one's own creations, free of charge. The museum challenges its audience to use the digital material and make their own artwork. The museum created a dedicated website for this and partners with digital marketplace Etsy and social networking site Pinterest, where people can curate their own 'exhibitions'. (rijksstudio.nl). Leading up to the grand re-opening of the museum in 2012 the Museum combined the Rijksstudio facilities with mobile Fablab studios on popular locations, such as the PICNIC media festival and the Bijenkorf department stores, to inspire young, creative people to look differently at the art collection and make personal designs (https://waag.org/en/blog/rijksstudio-bijenkorf).

Equally inspired by the open access to collections of the Rijksmuseum, Dutch design studio Droog presented a setting for a studio in the Milan design fair (entrance, bedroom, kitchen, living and dining). This presentation is complemented by wallpaper that graphic designer Irma Boom subtracted from works of famous painters like Vermeer and Rembrandt in the museum's collection. Along those same lines Dutch designer Maaike Roozenburg uses 3D printing to create replicas of antique cups from the Boijmans van Beuningen collection and enhances them with a layer of augmented reality information in her SmartReplicas project, using the cups as carriers for the information. The results were exhibited in the museum.

Such appropriations are of course only possible in those instances where intellectual property rights allow to do so. In the case of ethnographic museums this is for example not so easy due to different legal systems – if any – and religious or other ethical considerations.

Accommodating performative cultural practices.

Youth are drawn to cultural practices that engage all senses, are celebratory, social and immersive (festivals, celebrations, spectacles, etc.). Of recent, museums opened up as well to art and cultural practices that transcend disciplinary boundaries. For instance, relevant or related dance and performances may be staged in museum galleries, or artistic creations that employ mixed media, including visual, performative, and new media art elements. These initiatives can be expanded and enriched, and more links could be drawn to existing celebratory practices that engage social groups, such as festivals (theatre, dance, interactive).

Linking to community arts initiatives and grassroots online and offline practices.

One of the most promising approaches for museums is to recognize and relate to grassroots practices that satisfy youth interests in culture. These practices can take many forms, from community dance and participatory theatre, to small-scale museums, and community gatherings. In some instances, these seek to replace any need for a formalised cultural offering or intervention. By recognizing these initiatives and learning from them, museums can revise their own practices, and increase their visitor basis, but also create new premises for engaging with visitors. These engagements, typically done on the terms imposed by AHI, could be re-configured to account for grassroots conceptions, approaches and interests in engaging with culture. One example of such an attitude is the earlier mentioned link with Minecraft by the Tate Modern. 'Tate Worlds: Art Reimagined for Minecraft' manage to bridge museum and gaming spaces in an imaginative way, so that arts are brought closer to game players.

Dialogue, recognition of multiplicity, and inclusiveness.

Underpinning the proposals listed above is the idea that museums would benefit from shifting attention from objects inside to people outside. This could create the basis for inclusive dialogues and basic *civic reorientation* – replacing didactic voice by notions of multivocality that challenge linearity and objectivity (aware, at the same time, of new exclusivity caused by overemphasizing self-presentation). Moreover, museums would benefit from connecting to previously marginalised publics and/or social groups that are or have been *othered* on different grounds, such as ethnicity. These groups are more likely to have a special interest in culture as a way to help them (re)configure and crystallise their identities. Yet, in the Netherlands their engagements with AHI are minimal, and museums are not perceived as sites that could help them advance their cultural search. By becoming more approachable, closer, more interested and people-oriented, museums could enable stronger links with these groups, and enrich visitor participation and engagement.

One Dutch heritage institute, Naturalis, is convinced that museums will need to develop an increasingly symbiotic relationship with technology in order to achieve this. In their opinion, museums are becoming complex ecosystems active in both real and virtual worlds, and sustained effort and attention should go in the development of the technological infrastructures for supporting reliable and sustainable networks and services.

3.6 Conclusion

This chapter examined cultural attitudes and living media practices undertaken by Dutch youth, to identify new pathways of engagement with heritage that can be adopted by cultural institutions. Underpinning this research was the assumption that the gaps between museums and certain European social groups, and especially youth, are growing larger. At the same time, there is a high and still unexplored potential to engage these groups by devising links to grassroots cultural activities spanning online and offline spaces. To enable the configuration of fruitful connections between mediated and unmediated spaces of cultural engagement, we purported that it is important to arrive at a thorough understanding of the premises, motivations and attitudes that shape youth interactions with heritage. To this aim, the study was conducted as an in-depth exploration of subjective states, experiences and attitudes of Dutch youth, further examined in the context of larger scale online and offline cultural and living media practices.

The study confirmed that Dutch youth are very feebly connected, if at all, with heritage institutions. However, a low interest in transmitted heritage co-exists with engagements in cultural practices emulating individual passions and interests. Dutch youth do not examine, interpret and transmit culture as an unchangeable asset to be preserved. They are effectively engaged in *doing, making, changing* and *remediating,* rendering culture a vibrant space of experimentation. From their standpoint, established museum and curatorial visions and approaches are alienating, imposing unnecessary distances between people and culture, and driven by an exaggerated interest in material culture. Yet, these same attitudes can be exploited by museums to connect with youth. A few strategies and lines of actions for AHI have been proposed, and particularly:

- Adopting story-centred and people-centred curatorial strategies
- Creating platforms for social & civic engagement
- Accommodating performative cultural practices
- Linking to community arts initiatives and grassroots online and offline practices
- Fostering dialogue, recognition of multiplicity, and inclusiveness.

New technologies and applications will arrive and experiments exist with serious gaming, location based applications, immersive virtual and augmented reality, transmedia storytelling, etc. However, not all technically available options will appeal everywhere as much. In order to select the right strategy it seems advisable, especially towards the Web 3.0 era with its participatory paradigm, to invest in situational deep user-engagement, involving actual users in a sustainable creative dialogical process, paying attention to a wide variety of differentiating perspectives. A future-proof strategy lies in *attitude* rather than technology. The cases show an overall desire for multidisciplinary multi-sensorial interactive *social* contact zones both online and offline, where interests can be driven by *personal* connections to meaning making; actively linking existing heritage to personal experience, be it relating to the past, contemporary life or future selves.

The combined context of digital culture and human and cultural diversity affirms the RICHES taxonomy notion of heritage as a *dynamic,* iterative, continuous process. In contemporary culture this includes digital attitudes with key elements such as speed, ease and DIY playful bricolage.

Chapter 4: The Context of Change in the European Craft Sector and Recommendations for Revitalisation and Skills Transfer

4.1. Introduction

This chapter presents an overview of the context of change for the European craft sector, with a focus on the impacts of new technology in all areas of professional practice. In relation to this, it identifies trends, opportunities and challenges for a craft revival, by harnessing the potential of technology (particularly digital).

By its nature, the European craft sector is as diverse as the differing cultural, geographical and historical contexts that the individual EU countries embody. In addition there is considerable diversity in the nature of craft activities themselves, which range from *contemporary crafts* mixing traditional skills and knowledge with contemporary creative practice, to *traditional crafts,* which maintain a strong heritage ethos, often in the artisan tradition. In addition, craft activities are carried out across a range of professional, semi-professional and amateur contexts, which whilst evidencing the breadth of their influence and impact, also adds further complexity to their general context and makes their definition challenging.

In spite of the diverse nature of European crafts, there are certain commonalities that lie at the heart of this study as follows:

- By their very nature, craft activities are labour intensive in comparison with mass manufacture. This can make them highly uncompetitive in the contemporary world.
- Many, but not all, craft activities demand expert knowledge and high level skills which are increasingly rare and represent, in some areas, a diminishing heritage commodity.
- In modern consumer society, the availability of affordable, mass-produced goods has seriously reduced the potential market for the hand-made to minor, niche applications and purchases only.

Partly because of this threat to their survival, this chapter treats the crafts as a valuable aspect of heritage culture, which is relevant to all EU countries and could benefit from digital technologies in terms of communicating value, transferring skills and knowledge, as well as opening up new markets and applications. The research evaluates how the heritage of craft values, skills and knowledge may attain greater influence and relevance to contemporary and future society, by deploying digital technologies to render them more adaptable, fluid and pervasive.

To this end, the study examined the interface between the European craft sector and new technologies, in order to identify opportunities, challenges and barriers for a craft revival, as well as best practices and technological developments that can be leveraged. The research was driven by an exploratory mixed-methods investigation, covering the general European context, and illustrated by examples and trends identified through the analysis of empirical data collected in two countries: the UK and Romania. The main methods employed were desk research, interviews, an online questionnaire, and case studies.

The chapter narrative is structured in two broad sections. The first maps the impacts of digital technology on craft practice, with particular attention to the integration of DT in design and making, trends in online promotion, the emergence of online maker communities, e-commerce opportunities, and their overall impacts on professional careers. The second part outlines trends, opportunities, and recommendations for a craft revival afforded by digital technology integration.

4.2. Approach and methodology

4.2.1. Key concepts

This study explores craft practice, which focuses on designing, making and marketing craft objects, but increasingly refers to the use of craft knowledge and skills in education, community-based work and other sectors of the creative industries and the economy. Thus, the approach to crafts adopted by the authors embraces a paradigm shift that is increasingly relevant, by which crafts are seen as

> *"a distinctive set of knowledges, skills and aptitudes, centred around a process of reflective engagement with the material and digital worlds".* (Schwartz and Yair, 2010).

The terms 'maker', 'craftsperson', 'crafter' and 'designer maker' are used throughout as almost synonyms, though minor distinctions exist. The most general term used herein for craft practice, 'maker', indicates the person working with a variety of materials to produce objects that may support both a functional and an aesthetic purpose. 'Designer maker' indicates that the designs guiding craft production are original or personalised by the maker. 'Craftsperson' is the gender-neutral form of the traditional 'craftsman' term. 'Craft skills' are defined as:

> *"Methods of making based on hand processes using hand tools or machines, in which high order skills are required to produce artefacts of high quality. Some of these skills are viewed as being transferable across generations and adaptable to new, contemporary practices – for example fashion accessories, in which traditional skills can lend added value to contemporary luxury goods. Traditional skills are regarded as an intrinsic part of cultural heritage and can be vulnerable for variety of reasons, including displacement by automated manufacturing, the relatively high cost of skilled labour, lack of continuity of intergenerational training, lack of recording and dissemination processes, lack of appropriate markets, low levels of remuneration, and lack of perceived value."* (RICHES Taxonomy 2014, entry for 'Craft skills')

The focus of the study is on *professional* craft practice, therefore on makers who use craft knowledge and skills or produce craft objects for running a business or within other revenue-generating activities in the craft sector, education, or other sectors of the economy. At the same time, a series of trends bordering crafts amateur and professional practice are reviewed (for instance online maker movements), chiefly for their role in proliferating craft skills and craft education, or to the extent that they represent possibilities for turning amateur into professional, revenue generating and craft practice.

In the UK and some other EU member countries, a distinction is frequently drawn between 'contemporary' and 'traditional' or heritage crafts. The former is often associated closely with the contemporary fine art ethos of experiment, self-discovery, and the cultivation of niche markets and gallery exhibition contexts, with a strong bias towards creative practice. In contrast, the traditional crafts are often associated with the work of artisans, involving the practice of traditional skills, using traditional materials and frequently copying traditional designs or introducing minor variations only. In the UK, this difference is illustrated in two associated institutions that have provided support for this research – the Crafts Council and the Heritage Crafts Association, with the former embracing the contemporary crafts whilst the latter addresses the traditional crafts.

Whilst these contrasting territories have some validity in terms of their essential differences, the reality is less polarised, with the contemporary crafts often drawing on traditional materials, tools and skills – albeit with a contemporary twist. Whilst the traditional crafts are often employed within a contemporary context – for example their use in some prestigious modern architectural projects. The study addresses this paradox by ensuring that there is a balanced approach to field work and data capture which addresses both the traditional and the contemporary, with a view to exploring new synergies between the two.

4.2.2. Methodology

The following main objectives are addressed by the study:

1. Map the context of change of the European contemporary craft sector, with a focus on how technologies (particularly digital) are changing the way craft makers are producing, marketing and selling their products.

2. Investigate the conditions, challenges and opportunities for the revitalisation of the craft sector and craft knowledge and skills, with a focus on means by which craft makers can gain a more prominent position in the society and creative economy.

To achieve these objectives, an exploratory study with a mixed-methods approach has been designed, focusing on the European context in general, and a more in-depth investigation of two countries: the UK and Romania. This choice was motivated by the need to balance research requirements, including an acknowledgement of the value of empirical data, with the possibilities for travel and data collection afforded by the project. While the wider European context was mainly covered through desk research, primary data collection was more readily possible for the two countries, within limited resource investment. The link between the two countries was fortuitous as it allowed two sets of contrasting data to be compared. The UK and Romania both display an established craft culture, yet with a highly distinctive dynamics between contemporary and traditional crafts, the former with an emphasis on contemporary crafts and the latter with a culture where traditional crafts continue to thrive, albeit whilst undergoing significant challenges. The two countries also present very different social, political, economic and legal infrastructures that have a determinate impact on the current status and the evolution of crafts. Therefore, by reflecting on the impacts of digital technologies and the opportunities for craft revival in different socio-economic contexts, it is intended that results and recommendations will be more beneficial in reflecting the situation and potentials of Europe as a whole.

The methodology incorporated a common core of generic research questions, with the addition of specific research questions for each country. The main methods employed were desk research, interviews, an online questionnaire and case studies. These are further outlined as follows.

Desk research. Desk research was conducted in waves, firstly at the beginning of the study to inform data collection, and second during the data interpretation and chapter writing stages, to set the empirical findings in context. A library of relevant reports and articles has been collected and examined, including: reports that describe the current situation of the European craft sector, empirical investigations of the way digital technologies are used or impact upon craft practice, foresight studies on the future of the craft sector, reports that look at crafts as a sector of the creative industries in the UK and other European countries, and conceptual papers that engage with the status of craft and craft skills, and how their evolution is marked by the increasing integration of digital technologies.

Online questionnaire with makers. A questionnaire has been developed aimed at traditional UK craft practitioners, which probes their professional activities, attitudes and detailed views on the transferability of their skills/knowledge, their deployment of digital technology and their future plans. The UK Craft Heritage Association kindly agreed to run the questionnaire across their membership and this was completed in Autumn 2014. The return rate was rather disappointing (14 responses). The low response rate precluded a quantitative analysis of the findings, yet the data proved useful for conducting a qualitative analysis.

Face to face interviews with makers and designer makers. Fourteen interviews with Romanian makers, designer makers and designers were conducted, out of which six with traditional makers, seven with contemporary designer makers and one with a fashion designer. Traditional makers described themselves in relation to one or more crafts, their profiles including:

- Glass making
- Wood work
- Leather work
- Textile design
- Weaving
- Knitting/sewing
- Embroidery
- Object decorations.

Designer makers included the following profiles:

- Visual arts and surface design
- Calligraphy and mixed media home decorations
- Leather work
- Textiles and fashion design
- Ceramics
- Handmade fabric dolls
- Design of homeware and decorations

In addition, one interviewee, a maker with skills in sewing, knitting and textile design, specialised in the commercialisation of vintage ethnic outfits. The fashion designer interviewed is at the beginning of her career, and has a definite interest in incorporating ethnic patterns and vintage materials and embroidery in the clothes she designs. Interview questions explored the following areas:

- **Current professional activity**: craft areas and positioning of products, training, training needs, professional status, materials used, making processes, creative design, marketing and sales, business models, attitude to value of own work, economic sustainability, future perspective on own work and profession, collaborations in making, marketing and distribution, main challenges/problems in continuing to profess, intent to transmit own skills, and use of digital technology;
- **Makers' work and skills in other contexts**: interest in digital representation and promotion of own work, awareness of potential for own skills transfer to other contexts, contribution to commercial area beyond own practice;

- **The craft sector**: value of craft sector continuity, value of recording and transmission, appreciation of current and potential craft contribution to society, awareness of current and potential uses of digital technology in making, marketing and distribution.

Expert interviews. Interviews have been carried out with experts, sampled based on their prominence in crafts or related areas (fashion/textiles, cultural heritage and museums) in the UK and Romania. In the UK, two interviews have been carried out with a senior academic in the fashion and accessory field and the director of a gallery and museum with a specialist folk art collection. In Romania, two interviews were carried out with the president of a regional craft association, and the vice-president of a national association for craft cooperatives. An open-ended question guide was developed to lead the interviews which were planned to be of one hour duration, but could run to ninety minutes as required. Interviews were recorded digitally and transcribed before coding and analysis.

Case studies have been selected to give an in-depth view of how digital technology can be used to advance, promote and afford wider recognition and relevance of craft practice and craft products. E-commerce has opened some of the most significant opportunities for craft practice and several e-commerce models have been tried out in Europe, with varying success, accessibility and impacts on makers. In this study, two e-commerce and underlying business models have been selected for investigation, one based in the UK, and focused on marketing contemporary arts and crafts, and one in Romania, and focused on marketing and enhancing the appeal of traditional crafts. The first introduces *CultureLabel*, an online concept store specialising in contemporary art and craft products, and based in London, UK. The second focuses on the experience of an online concept store, *Blouse Roumaine Shop* (BRS), which markets traditional Romanian blouses and objects. BRS adopted an innovative business model putting in relation traditional makers in the rural areas of Romania with Romanian and European buyers. The approach to case studies has been to combine interviews with background investigation. This allowed each case study to document and align the views, attitudes and activities of key interviewees with the history, contemporary position and future development of their professional environments.

4.3. Mapping the impacts of digital technology on craft practice

This section describes the context of change for the craft sector, with a focus on the impacts of digital technology. Importantly, this section identifies trends, and does not attempt to provide precise indications of the scale or pace of adoption of technology at European levels. Changes are mapped in relation to:

- The integration of technology in design and making
- Online promotion, online communities and online sales
- Impacts on professional careers

A second important aspect to note is that a comprehensive view of the context of change for the crafts is difficult to grasp by looking only at linear trends. Rather, understanding this context requires cross-reading between trends enabled by digital technology in all areas of crafts affected by technology. For example, the use of new technology in making processes is constantly reinforced by online communities sharing practices and designs.

4.3.1. Digital technology in design and making

Digital technology can be used in craft practice in either or both phases of conceptualisation/design and production/making. Another way to profile technological deployment in craft practice is by distinguishing between technology for designing and making digital objects (for instance 3D printing); creating digital worlds (through computer-generated imagery - CGI, virtual environments, animation, 3D visualisation and digital manipulation) and making digital systems that can enable new ways of practicing craft (Yair, 2011).

Changes to the craft making process are firstly brought in the conceptualisation and design stage, by using:

- CGI
- Digital animation
- Computer simulation
- Other computer-based graphics and visual programming software.

CGI has already been in use for a long time, and has enabled makers to boost their creativity, probe new concepts and enable them to visualise the end products of their design. For example, Jane Harris, a UK-based maker uses her knowledge of textiles to create digital fabric that simulates historic clothing or future fashion (Yair, 2011).
Another technology used in the making process is laser cutting, which can significantly speed up making and increase volumes of production. Laser cutters enable the production of hybrid objects, which are part machine made and part handmade or hand-finished. This hybrid approach to production allows makers to profit from the advantages of using manufacturing technology (speed, higher volumes) whilst retaining the value of the handmade as one of the unique attributes of craft objects.

One of the technologies which is only just beginning to realise its potential is additive manufacturing (also known as 3D printing), defined as the process of making 3D objects through the successive addition of layers of material, following a digital model, under computer control. Due to its adaptability in terms of volume production, additive manufacturing can be used in many different ways in craft production. Overall, its uses are more varied, pervasive and extend to more stages in craft conceptualisation and production, than CGI and computer visualisation and simulation alone may afford. Firstly, it can support rapid prototyping. 3D printing is already used by makers to create object prototypes or concept models, which can enable them to showcase their concepts and ideas and improve their designs. This process is usually costly and time-consuming in the absence of 3D printing, making the technology an important way to save money and time (Barnatt, 2014). A second use of 3D printing is for creating moulds and patterns employed by makers in their production processes. In this instance, it can enable makers to work faster, increase their production volume or change their designs more often. Thirdly, a usage that distances 3D printing completely from hand making is Direct Digital Manufacturing, where it is employed for creating end-use products (Barnatt, 2014). Last but not least, the technology offers new creative opportunities, for example the production of forms and finishes that cannot be produced in any other way.

While at present 3D printing devices are still rare (with the first open source 3D printers being released around 2007), in the future 3D printing will become more common, and several companies are currently engaged in the production of printers for home use, allowing people to print their own objects. Home-based 3D printing can have mixed impact on crafts. On the one hand, it may cause a further decline in demand for craft objects, similar to the one caused by the rise of mass manufacturing. In practice, the boundaries between professional and amateur craftspeople may become increasingly blurred, as people will be able to design and print their own objects, independent of practical skills. On the other hand, however, increased affordability of 3D printers for craftspeople can have significant positive impacts on professional craft practice. The various uses of additive manufacturing change or are prone to change craft production in several ways:

- Save time, money, enable communication with customers during the making process (through rapid prototyping)
- Allow makers to change their designs and iterate creation and production cycles until reaching desired concepts (especially through rapid prototyping)
- Speed up production and increase volumes (when used for creating moulds and patterns, as well as for creating end products)
- Enable customisation and personalisation of products
- Enable experimentation and rapid translation of abstract design concepts into 3D objects – either prototypes or end-products
- Enable production of objects that could not be produced through traditional crafts methods
- Enable hybrid manufactured and handmade production (where objects are produced by machine and then hand-finished) (Barnatt, 2014)

This list is by no means exhaustive, and different uses of 3D printing are emerging and proliferating, driven by the creativity of individual practitioners and designers. For example, Michael Eden, a British maker, designer and artist uses 3D software and printing technology as a “new creative language”, “to communicate an idea or tell a story in the form of a three-dimensional (3D) object” (Eden, 2012). The use of the software and the technology is embedded within his creative intention. To underline his approach, Eden emphasises that he does not define himself as a craftsman, but rather as “a maker who is happy to explore the overlapping ‘grey’ area between Art, Design and Craft”. In this process, any software, 3D printing technology and digital devices are used as tools, no less than the ordinary tools used in traditional crafts, yet employed in a way that adds to and augments their basic functions. Interestingly, Eden brings to this process a unique sensibility acquired through experience working with clay, yet he underlines that digital technology enables him to realize concepts and designs that would be impossible to achieve through traditional hand making practices.

> *“Having come to the software after years spent giving life to clay, I am trying to apply the same sensibility to objects through the mouse and keyboard. The process normally starts with the creation of simple shapes, but then the challenge begins where I am improvising, using tools in ways that they may or may not be intended for.”* (Eden, 2012)

Yet, not all makers and designers are positively inclined towards 3D printing. Some Romanian contemporary designer-makers expressed concerns that with 3D printing the designer's and artist's personal touch is threatened. For instance, a designer maker who was well accustomed to craft-specific digital technology and used it in her practice (CGI, laser cutting), explained that she would not integrate 3D printing in her work, as by integrating it she *"would be out of the zone of personal expression"* and completely in the realm of automated production. Other Romanian designers interviewed expressed concern for a future dominated by machines:

> *"It is interesting that we will be able to make anything we want with machines, but at some point we will want to see again the people behind the machines."* (Painter and designer maker, surface design)

A different view was expressed by a Romanian designer working in a contemporary object and furniture design boutique, who was planning to acquire a 3D printer for his business. In his view, given that 3D printing is still an emerging, expensive technology, 3D printed objects are expensive as well, and their value may even be compared with that conferred by hand making processes.

Another trend sees the production of digitally-augmented objects, which can be described as interfaces between people and technology (Yair, 2011). These objects are typically created with a special purpose and associated function, and have several application areas, from entertainment to healthcare. For example, in the UK, Jayne Wallace created digitally augmented jewels or jewellery holders such as digital memory boxes that could support dementia patients and their carers. Augmenting craft objects with additional information can also be achieved by means of Quick Response (QR) codes. For example, Michael Eden's Babel Vessel features a QR code linking to his website; the novelty is that the code is not 2D but 3D printed and it is embedded in the wine vessel seamlessly. The communication of the making process, history and materials used can be an important aspect of raising the public awareness of the added value that craft work promotes.

More advanced technology integration, of which the above example is only a sample, is however limited to progressive designers and designer makers. On a wider scale, adoption of technology and the specific types of technology used present a high degree of variation by geographical areas (especially distinguishing between creative hubs and more remote or isolated areas) or by the specific area of craft practice. In the UK, an estimated 57% of craftspeople integrate some form of digital technology in their practice, with 30% using DT in design, and 19% in the actual making phase (BOP Consulting, 2012).

Access to software, equipment and specialised technical skills are factors to take into account that may influence the scale of adoption. At the same time, a series of more subjective concerns are expressed by makers themselves and manifested in their personal choices with respect to technology integration. The qualitative research conducted in Romania revealed that a concern of prime importance is the space left for artistic or personal expression. This could motivate different attitudes with respect to technology integration, ranging from a moderate embrace to an almost complete rejection, as illustrated below through a selection of quotes:

> *"The handmade is not able to sustain the demand of a large market. I situate myself in between handmade and machine-made. And I try to keep my part as an artist very visible. I try not to allow technology overtake the process, lest my role as an artist vanishes."* (Painter and designer-maker, surface design, Romania)

> *"I want to be and stay in control, I am not interested in automating the entire process. I am interested in what I can personalise as much as I can. It is true that the medium I use is very time-consuming, but I do not consider I am losing money. Every activity is defined as well also by the time you dedicate."* (Contemporary weaver and textile designer, Romania)

> *"I tried to look on the Internet and see what tools are there, what new technologies. But this is a way of communicating, it is a communication. If the machine intervenes I do not know if it would communicate the same thing. It would help me professionally, but not as a human being."* (Wood worker, sculptor, and painter, Romania)

4.3.2. Online promotion, online communities and e-commerce

Digital technology and the internet provide new channels and drive new models for promoting and marketing crafts, in particular:

- Enhancing visibility and promotion for makers and their products
- Enabling customer engagement and relationship/trust building
- Enabling relationships among makers or between makers and other crafts actors
- Enabling acquisition of crafts skills in informal learning contexts
- Exchanging information, patterns, designs, etc.
- Supporting product sales
- Offering new creative opportunities and influences

These processes are inter-related, and some are supported jointly by the same portals, websites, and communities. Social media are currently the most accessible and affordable tools for promoting, selling and engaging customers of craft objects or engaging craft communities. They are used in a variety of ways and to a different effect by craft actors, from makers to craft organisations, support associations, and craft retailers. Different types of social media portals come with different opportunities. This section considers social media in a broad sense, as the array of platforms, tools and infrastructures that enable the creation, sharing, and exchange of content created by online users. It includes proprietary platforms such as Facebook, Twitter, Pinterest, Instagram, video sharing sites such as YouTube and Twitter, blogs and wikis. A series of trends in using social media and opportunities opened thereafter are outlined below, clustered around five main goals and focusing on makers or maker organisations:

- Brand image building
- Audience engagement and customer relationship management
- Sales
- Networking and community building
- Learning, skills building and knowledge exchange

Brand image building

Social media are used to increase visibility for makers and their products, position craft products, and build and strengthen a brand image, with innovative models of online promotion continually emerging. Building and consolidating a brand through social media requires constancy, and attention to many different semiotic cues that together convey a message that users can readily interpret. While many makers may freely post and communicate images, text, and information about their work and their products, a more strategic approach will pay off over the long term.

For craft objects, brand image building is centred on communicating their *value*. This may come by underlining their authenticity, uniqueness, the hand making process, the techniques used, or the cultural patterns and motives embedded within. One effective strategy used broadly is storytelling. Telling the story of an object and its maker can provide users with a glimpse into making processes, the environment where the objects were initially made, and unravel their cultural and social value. For example, a Romanian wooden spoon maker based in Sighișoara (a Romanian medieval city) has realised the importance of storytelling for selling his objects. Nicknamed 'The Spoonman', he concentrated his online promotion strategy on a storytelling approach: each of the intricately designed wooden spoons presented online is accompanied by a story which narrates the cultural provenance of motives and patterns, and other anecdotes associated with individual objects. On his blog and website (thespoonman.ro; facebook.com/obiectetraditionale.ro), his stories are narrated in four languages (Romanian, English, Italian and German). The stories may not necessarily follow a narrative structure. They may for example, be told by selecting a certain chronology of pictures showing a making process, through other illustrations, or by inserting interviews with makers.

Audience engagement and customer relationship management.

Social media enable craft actors to engage and build relationships with people interested in their products, and potential and past customers. These may lead to growing communities of people affectionate to a brand or maker, generating positive word of mouth dialogue and eventually increased sales. One of the distinctive features of audience and customer engagement through social media is the active role that the user can have, moving from a passive consumption to a participatory role. User can be engaged through contests, voting campaigns, be included in the craft making process, or offered customised experiences and objects. For example, a young brand promoted by a Romanian maker, *The Dolls Shop* (Ro. *Pravalia cu papusi;* facebook.com/PravaliacuPapusi), invites customers to customize the dolls they want to buy, by engaging in a process in four steps.

English translation:

How do you make a personalised doll?

I. You give us the theme
II. We sketch a few proposals
III. We choose together the materials
IV. We start stitching

Affectionately
Katia. The Dolls Shop.

Figure: Facebook post inviting users to co-design the desired doll. (Source: facebook.com/PravaliacuPapusi)

Sales

Most social media sites cannot afford direct transactions, yet they can support sales in more or less direct ways. Some brands or makers list the price for their products, and receive commissions or orders from users, which are then carried to another site or offline for completing the transaction. A good number of the Romanian makers interviewed, both contemporary and traditional, mentioned that they received orders through Facebook. Questions may be raised around trust and credibility, yet despite not having been created with an integrated commercial model, social media sites embed a reliable accountability and trust verification mechanism, through user reviews and comments. More indirectly, social media sites encourage sales by building trust in brands and makers, enhancing the desirability of products, and determining buying intentions. Makers can forge links between sites where their products are sold, their personal online shops or collective e-commerce sites such as Etsy, therefore making it easy for buyers to go from a buying intention to a transaction. Importantly, social media link makers with an international base of users, and also potential customers. Yet, in the absence of a reliable commercial model that can support closing deals and international deliveries, the potential to sell to an international audience cannot be effective.

Networking and community building

This is the most widely spread way of using social media. Several levels and models of networking are possible, from nurturing individual connections with professional associations, to building enduring online communities. A good number of such communities are created around popular social media sites such as Facebook and Pinterest. Some are initiated by makers, but also by people who adopt crafts as a hobby. On Facebook, for instance, there are communities clustered around various craft interests, goals, types of crafts or types of products, in which users post their models, pattern proposal, and handmade objects, exchange ideas, ask and receive advice, or learn about new making techniques. There are international, as well as local groups, using local languages.

Some of these communities develop a name and an identity which has spinoff effects in the offline sphere. For instance, *La blouse roumaine* (facebook.com/LaBlouseRoumaine) is a large Facebook community which seeks to connect and inform a community of people (Romanian and international) interested in craft value, tradition, and particularly traditional Romanian patterns and blouses. With close to 100,000 members on Facebook, *La Blouse Roumaine* also drives initiatives outside the online sphere. One of these initiatives saw the launch of the Universal Day of the Romanian Blouse (*ie)* which had already been celebrated for two years, in 2013 and 2014. In 2013, the day was celebrated in 48 countries with 143 events.

Online communities are not restricted to proprietary social portals such as Facebook, and may gather around stand-alone portals which serve to access information, support exchanges, learning, and innovative ways of promoting craft objects, patterns and designs. Online communities enable makers to reach a variety of goals, by accommodating varied activities in a shared social space regulated by a code of conduct. They may be sites of promotion, communication, networking, information and knowledge sharing, learning, and inspiration, acting in a way like 'virtual guilds' (Bonanni and Parkes, 2010), and enabling makers to:

- Expand their network of contacts
- Promote their products
- Exchange information about making, techniques, materials, patterns
- Give and get advice
- Learning – from a new technique to overcoming a problem they encounter

There are several types of online maker communities which have been founded by professional and amateur craftspeople, people interested in crafts and DIY, professional support organisations or large craft retailers. For instance: communities focused on a particular craft or skills (e.g. knitting, crocheting, such as stitchnbitch.org; ravelry.com), craft and technology (e.g. makermedia.com), learning crafts (e.g. diy.org), or on sharing knowledge around innovative technologies such as additive manufacturing (e.g. thingiverse.com). Maker communities may have an exclusive online base, or blend online and offline activities (for example *Stitch 'n Bitch* local groups also organize co-located member meetings). Overall, maker communities contribute to advancing the craft field by fulfilling one or more of the following:

- Encourage craft knowledge and skills transmission through peer learning and informal formats
- Link traditional making skills to new formats, methods, and technologies
- Ignite interest in crafts for a wide base of members and supporters
- Support connection and networking among professional and amateur craftspeople (and enable some amateurs to cross the line and become professional craft practitioners)
- Democratizing crafts and design, turning customers into co-designers
- Starting, nurturing and directing new trends in crafts consumption and related areas (e.g. fashion)

Online communities also serve to augment technological integration in making processes. An example is the way online communities around 3D printing share digital models for production, along with the potential to modify, test, and re-share the modified versions (see for instance Thingiverse.com). This is an illustrative case of how online communities democratize design and move forward the open design trend (Barnatt, 2014), which is already emerging in several design disciplines, notably software design.

Learning, skills building and knowledge exchange

This field is afforded effectively by membership of online communities, yet it deserves specific attention, as the means, tools and information are often provided outside communities, and can be pursued as well independently. Popular video-sharing platforms such as YouTube are used to share craft making tips and tutorials, which can be used by both professional and amateur makers to learn or perfect their skills, or get inspiration for new designs. A Romanian contemporary maker interviewed, trained in architecture and mechanical engineering, used YouTube to learn leather craft:

> *"I learnt on my own, experimenting. There are many tutorials on YouTube, many people that post videos. I took a course before, but it did not help me as much. I learnt by watching videos and trying on my own, I am a perfectionist and this came naturally."*

His products, displayed in a contemporary arts and crafts fair in Bucharest, showed high quality and were crafted with care. The first products he made were wallets. He thought that typical wallets are too big, so he came up with designs for smaller wallets, made neatly to fit ID and credit cards. Then he started to slowly add other products, always acquiring the skills through trial and error, helped by online video tutorials. This is an illustrative example of how learning through online content, mostly posted through social media sites, enables knowledge and skills acquisition that can lead to career changes and professional reconversion. The availability of low-cost digital video film making and distribution is gradually democratising craft educational and skill development, rather than restricting it to an educated elite or trained minority.

E-commerce

E-commerce for craft products is an emerging phenomenon, likely to expand rapidly. Several years ago, there was concern that craft objects are not sellable online, as they require direct physical engagement in order to be appreciated. However, the success of early models, such as Etsy, proved that practitioners can find effective sales channels in the online medium. Several e-commerce models have evolved, and are backed up in the offline world by innovative business models. One of the most successful models of e-commerce is 'the online marketplace', where a variety of products from individual craftspeople, shops or collectives are sold online. Etsy.com is the most successful and rapidly expanding online marketplace. Started in 2005 in San Francisco, it has expanded all over the world, including Europe, now has 600 employees, 400 million members and links to over 1 million shops with an international customer base. Etsy is not merely an online shop, but is positioned as a community that takes its corporate and environmental responsibility very seriously. For example, it organises visits to its sellers and gets involved in charity fundraising and donations. Other examples of online marketplaces for craft objects are to be found at national level, for instance *Folksy* (folksy.com) in the UK, or the Romanian *Breslo* (breslo.ro) which sells products by Romanian contemporary makers and designers.

Another model is the online concept store. In the offline world, concept stores offer a shopping practice replete with emotional and sensorial experiences, interaction with arts and cultural value through selected objects, and an involvement of the customer not reduced to mere transaction. In the online world, this translates into the positioning of online shops or e-commerce sites as sites to encounter specific experiences, objects that embed a value – artistic, cultural, historical – and a functionality that appeals to a specific customer segment. Online concept stores differ from online marketplaces in the way that their works are carefully selected, and how they adopt key concepts or themes for the presentation and promotion of makers and their objects. Online concept stores may also be animated by a central 'mission' or proposition, such as offering access to high-value and accessible arts and crafts, or increasing the customer base for unique handmade objects that are not easily accessible. The case studies introduced below shed more light on how two different types of concept store, one for marketing high-end contemporary crafts, and the second for traditional crafts, have been founded and the key drivers behind their success.

4.3.3. Case study: CultureLabel, UK

CultureLabel (culturelabel.com) is a UK-based online concept store that retails art and craft products on behalf of museums, art galleries and boutiques, and directly from artists and designers. It is a concept store, insofar as it sets out to display for sale carefully selected objects that fulfil both a functional and an aesthetic purpose and embed craft value in their design. One of the founders interviewed describes them as "passion objects" in which one can believe, especially as they are associated with the names of artists and museums which confer on them a unique brand value.

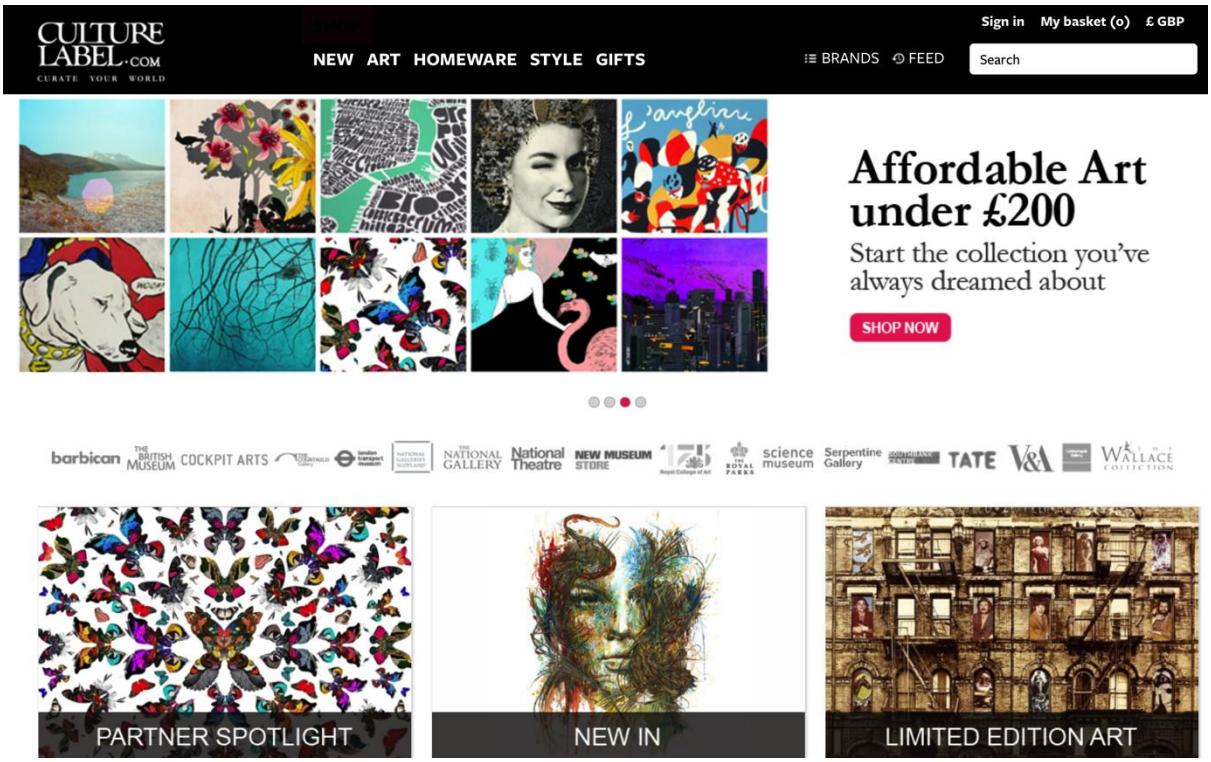

Figure 2.2. Homepage, culturelabel.com

Founding story and business model

The business was founded in 2009, at a time when interest in culture was in full bloom, cultural consumption was growing and cultural institutions such as the British Museum and Tate Modern in London were visited in increasingly large numbers. There was a growing market for cultural experiences, but also for cultural objects, sold in museum shops and boutiques. These objects were invested with a value partly conferred by their association with the museum where they were sold, they were 'branded' in a way that high-volume manufactured objects were lacking. Yet not everybody could have access to these objects and not everybody could afford them. The market for arts objects was instead provisioned by large corporations that sold mass manufactured design objects and reproductions, such as IKEA. On these premises, the founders of CultureLabel first hypothesised opening a new business:

> *"(W)e just thought that there must be a market for this [art] (..), that has a story attached to it and an interesting arts organisation, has got a great artist, can be collectable and not disposable like a piece of wall art."* (Founder interview)

The business was started with venture capital, which enabled founders to build the website and hire their first staff member. When founded, CultureLabel managed to occupy an e-commerce gap for cultural organisations, pushing online sales for products typically sold in art boutiques and museum and gallery shops. For the consumer of authentic and original art and culture, it was a way to find many kinds of carefully selected products in the same place.

> *"(W)e had an online superstore. Superstore is probably the wrong kind of brand, but effectively it's an e-commerce site for selling things like artwork, limited edition rather than expensive, original art which we felt online wasn't quite ready for."* (Founder interview)

The business model was centred on the idea of *aggregation* and *curation*, adapted in a way that distinguished CultureLabel from the still few, but growing online museum shops, large online market places like Amazon, and also other online market places for arts and craft objects, such as Etsy, which was also in full growth at the time. CultureLabel was selective with the objects it marketed, and was active in seeking new art talent. Identifying and promoting new talent was therefore one of the driving engines of the business.

The suppliers of CultureLabel are:

- Museums
- Galleries
- Cultural organisations
- Individual artists and designers.

The information about the objects and their makers present on the website is sourced directly from artists and suppliers. Each artist or cultural organisation has the opportunity to upload their presentation, and objects belonging to a single organisation or maker can be accessed on one page.

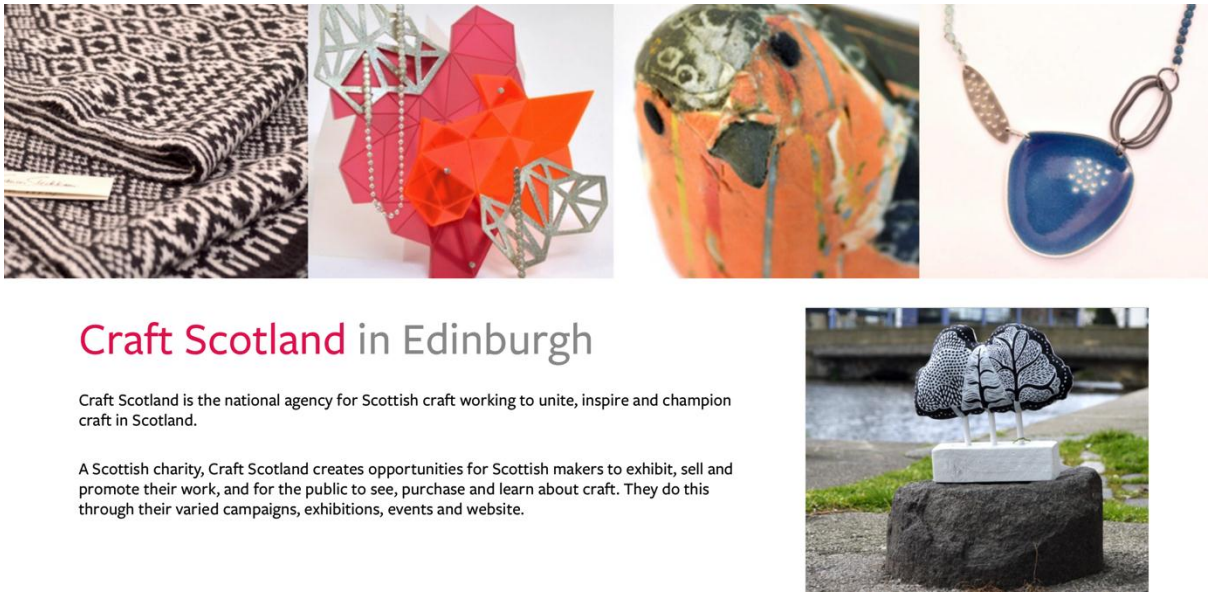

Figure Supplier brand page on culturelabel.com

Product positioning and brand image building

CultureLabel offers at present a wide selection of arts and craft objects, ranging from fashion accessories to decorative objects, but also cultural experiences. The uniqueness of the approach stands in its being an active promoter of new talent and selected, valuable objects at affordable prices, effectively a form of online brokerage. Its tag line 'Affordable art at under £200' denotes that it seeks to promote value without necessarily quantifying value in monetary terms. The value comes from association with the names of established museums and arts organisations, and as a direct correlative of talent, the handmade and unique or limited edition items. Many of the objects are collectable items, both 2D and 3D, and cross the blurred line between crafts and fine art. The shop offers contemporary crafts, though not traditional craft objects.

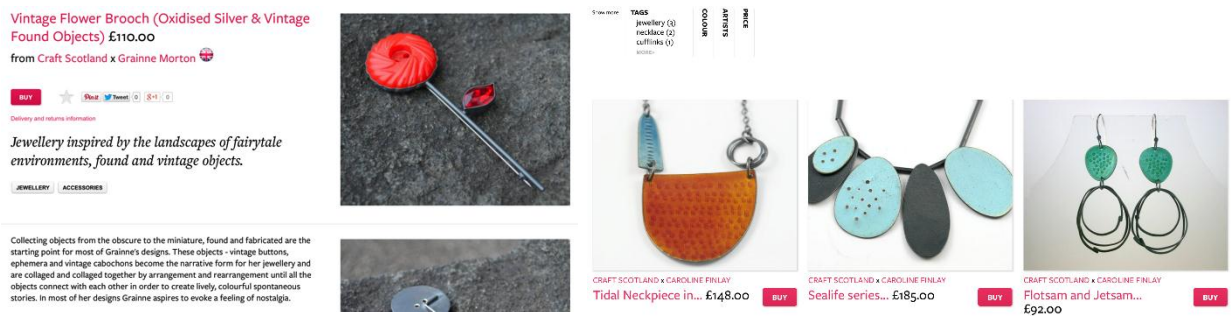

Figure Object page (left) and artist page (right) on culturelabel.com

CultureLabel positions itself as more than an e-commerce site. It is an active actor in the cultural and creative industries, knowledgeable of the market, climate and trends in cultural entrepreneurship, and involved in driving and supporting cultural entrepreneurship activities. Over the years, it authored and offered for free download two books, entitled 'Intelligent naivety' and 'Remix', which focused respectively on cultural entrepreneurship and *"the key trends that will shape the future of the arts and creative industries over the next years."* (Founder interview).

CultureLabel grew into a brand that inspires *trust* in terms of quality guarantee, but also as a knowledgeable interpreter of art trends and therefore an advisor in arts matters, and the choice of the appropriate art works for buyers that expect this kind of expertise from their provider. This image was built over time by delivering quality, but also in association with the other brands and artists that it promotes. The communication strategy cultivates this by bringing artists and providers under the spotlight as well as stressing the features that make objects stand out – either being part of a limited edition, or as unique objects.

Customer relationships and customer engagement

The CultureLabel customer range is varied, and the shop tries to cater for different tastes from more conservative preferences in terms of art, to more experimental ones. The core target is made of young urban dwellers with a moderate interest in arts, and who would like a more unique touch to their home decoration and accessories. The founder interviewed stressed that the success of the online business was to a great extent afforded by profiling the product offer to the identified customer profile, once this was identified. This approach did not imply bartering art value, but instead balancing the aim to cater for customer needs and wants, with the offer of the arts and craft market and an underlying drive for offering quality and high-end products.

The carefully constructed brand image, its position as a knowledgeable broker in terms of art matters and art trends, and the association with reputable brands, is a significant factor for attracting new buyers and building customer loyalty. For customers new to art, CultureLabel provides *"an element of trust and security"* (Founder interview), in much the same way that conventional retail brands offer a perceived lower-risk consumer purchase This same trust motivates buyers to come back and buy again and customer loyalty is reinforced by offering several informative services, such as newsletters tailored according to the arts interests of customers.

Impacts on makers and the arts and crafts sector

For artists and makers, CultureLabel offers, first of all, a venue for selling their objects. Yet over the years it has come to influence artists' careers, making process or trajectories in several, subtle ways, different on a case by case basis. One aspect relates to spotting new talent, and giving emerging artists the chance of being promoted in association with the CultureLabel brand. Moreover, selling through CultureLabel is not about the facilitation of a transaction, but about building relationships:

> *"A lot of it is about relationships and locking in the right people, or spotting the new talent, and you being the person that breaks that talent to the market. So for me it's about more than just the platform or the physical product itself, it's about the network of relationships and connecting all of those assets to a consumer market."* (Founder interview)

Second, CultureLabel may influence in turn the art making process, by commissioning, or by involving artists and makers in new projects. For example, several artists collaborated to create objects for the 50th anniversary of Amnesty International. The founder warned that there are limits to the influence of the art making process by following consumer trends. Responding to customer needs has to be balanced with something of an educational mission for promoting art which embeds values, and educating customers on the personal value of art.

On a broader scale, over the years CultureLabel and its leading figures have become increasingly engaged in the cultural industries, and involved in the organisation of events that promote and sustain creative people and cultural entrepreneurship.

One of the key messages underpinning their involvement in the creative industries is that artistic creativity and entrepreneurial spirit are not separate and may both be cultivated by a single person, or embodied in mixed teams. Either way , arts and craft products need a customer base just as much as museums need visitors. In this sense, the age-old separation between a pure artistic spirit and the commercial exploitation of art as product has become obsolete.

4.3.4. Case study: Blouse Roumaine Shop, Romania

In 1981, Yves Saint Laurent presented an autumn-winter fashion collection called 'La Blouse Roumaine' ('The Romanian Blouse'), which featured richly embroidered women's shirts reflecting the traditional Romanian clothing style. The collection name was inspired by a painting by French artist Henri Matisse, now displayed at the Musée National d'Art Moderne in Paris. This is the name adopted by the online shop opened by a young Romanian entrepreneur in 2013. *Blouse Roumaine Shop* (BRS) is an "online concept store offering the finest selection of authentic handmade Romanian blouses" (BRS website).

The main product commercialised by BRS is the blouse called 'ie', a traditional Romanian shirt for women made from natural materials such as flax, cotton, hemp or more precious silk, adorned with embroidery in different colours. Originally the cut, textures and the motives of an *ie* reflected a woman's age, social status and were suitable for many different occasions. BRS set out to reposition the traditional *ie* as a precious outfit for contemporary women, without affecting its traditional value.

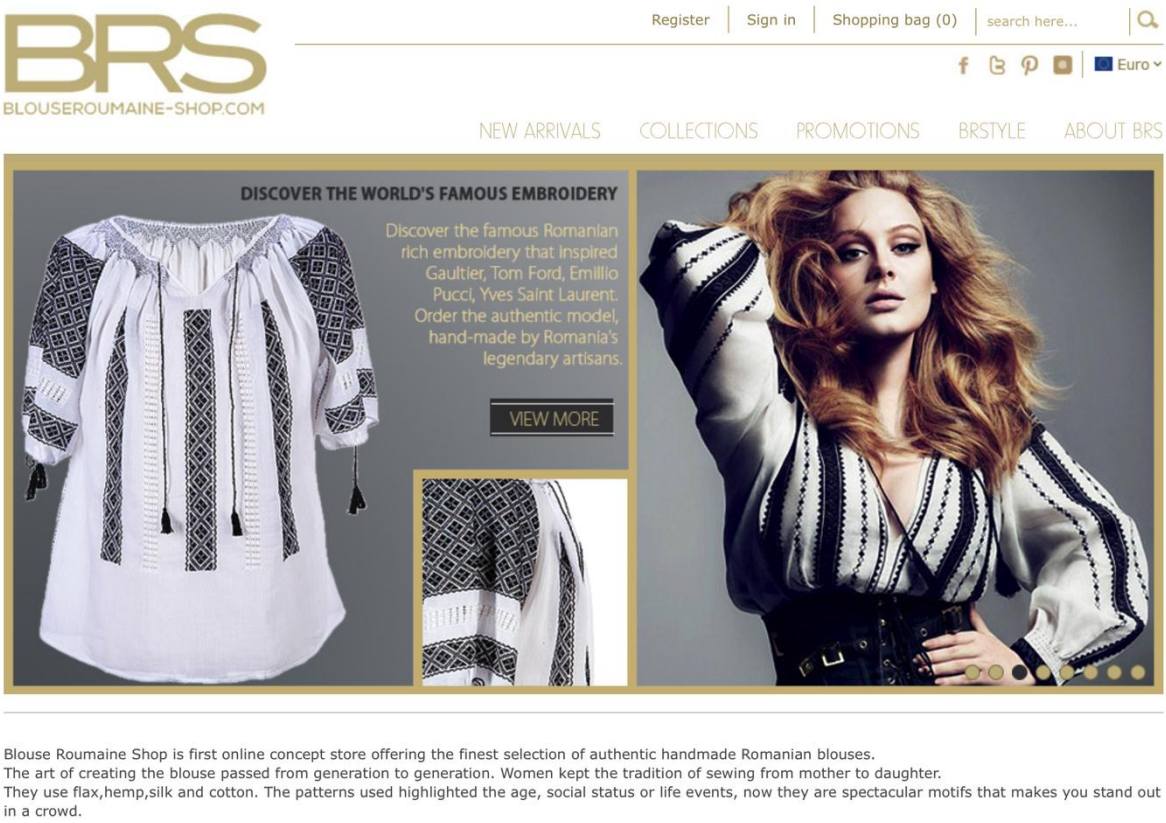

Figure Homepage, blouseroumaineshop.com

Context and founding story

Blouse Roumaine Shop was founded in 2013, at a time when an interest in folk art and folklore was in full bloom in Romania, Europe, and worldwide. Folk art and the traditional crafts have always enjoyed a prominent position in Romania, and despite a current decline, craftspeople and their work have always enjoyed a privileged place in Romanian society. Yet for many years, reflecting a trend observable in many other national contexts, the traditional and the contemporary evolved in completely distinctive sectors, with different makers, modes of transmission, different markets and distinct roles in the collective imagination. More recently, this division has become increasingly blurred, as a renewed interest in tradition was doubled by the drive to re-interpret and re-invent folk art in forms that could be appealing to a wider contemporary audience. This was visible in all creative domains, from music, to art, fashion, and architecture, where folk motives and patterns have been integrated, modified and reinterpreted. In fashion, several Romanian designers such as Adrian Oianu, Ingrid Vlasov, and Valentina Vidrascu started to integrate folk motives and patterns in their collections and gained inspiration from traditional Romanian garments. This reflected a European and worldwide trend, with fashion designers such as Tom Ford, Oscar de la Renta, and Donna Karan who manifested an interest in the integration of folk art.

In this context, a young Romanian entrepreneur, Antoaneta Mareș, first had the idea to launch an online shop and teamed up with a partner to make it happen. The idea came when she saw the cover of the glossy magazine Vogue UK, featuring the singer Adele dressed in a Tom Ford creation that resembled very closely the typical Romanian traditional *ie* blouse. She saw the marketing potential of the Romanian blouse, and also appreciated the importance of brand value: the Tom Ford blouse was priced at ten times the typical selling price of an *ie*, possibly due less to the changes made by the designer and more to the brand value of his name, and the advertising and marketing around his collections. In addition, there were other facilitating factors for opening an online shop: including the possibility to reach an online audience through the internet, and the infrastructure for fast payment and fast transportation. These facilities were not easily accessed, however, by Romanian makers, most of them living in remote rural areas with limited broadband access.

> *"My thinking was that our craftspeople do not have access to the resources that big fashion houses have. But their advantage is that they have authenticity and they create all products manually, something that is becoming increasingly rare in Europe. You don't really find people around that can produce handmade outfits. Therefore I planned to bring in my marketing resources, and the know-how I gathered in time, and create an online platform to offer craftspeople a modern space to market their products."* (A. Mareș)

In order to establish a platform for the business, Antoaneta contacted a web design company to develop the website, and the National Union of Crafts Cooperatives, who mediated contact with craft cooperatives throughout Romania. Models and patterns differed across the country, and she therefore travelled to several regions to negotiate and then establish formal agreements with several cooperatives and makers, so she could bring a broad range of goods for the shop. The business became a staggering success at launch, receiving up to 10 orders per day.

Figure The journey of the Romanian *ie* blouse*:* after a model is selected in discussions with craftspeople, the blouse is photographed in the studio (upper left); placed on the BRS website for online promotion (upper right) and upon purchase delivered with a complimentary card featuring the story of the blouse (below). Source: Blouse Roumaine Shop.

Business model

Initially, Antoaneta wanted to try out a business model based on partnerships with makers and craft cooperatives, by which they would become equal shareholders, each investing their expertise in making, marketing and promotion as applicable, and accepting agreed shares of the profits. However, the model did not work in practice as it was not appealing to local craftspeople, who preferred to treat BRS as a customer, and stay outside the process of marketing and delivery to final customers. As a result, in the model that was eventually adopted, BRS acted as mediator between the producer and the final customer. Products are now ordered online by customers, BRS sends the order and specifications to providers (directly to makers or cooperatives with 30 to 50 makers), and these deliver the product within an agreed timeframe. The business rests on two pillars: the production pillar and the marketing, promotion and sales pillar, with local makers or presidents of craft cooperatives in charge of the production pillar. BRS is responsible for all activities not focused on making including: selecting outfit models and photographing them, promoting them online, taking and managing orders, and providing packaging and delivery.

However, as a different approach from a partnership model, BRS is the only body accountable to the final customer: the product is effectively sold to BRS, and then to the final customer. Every item is custom made following a customer commission, and items are usually not held in stock. The making process lasts two to four weeks, depending on the complexity of the model, and from one to three more days are needed for delivery. All services related to delivery, web design and special promotional campaigns are outsourced.

Product positioning and brand image building

BRS offer a selected array of authentic Romanian blouses and outfits, hand made by Romanian craftspeople using traditional techniques. When initially launched, BRS was conceived as more than an online shop, rather a mediator between a customer and the craftsperson commissioned to make the bespoke outfit following her/his commission.

> *"I wanted to offer a modern space in the online, with a minimalist design, aligned to online fashion trends. The only difference is that the products we offer are not mass manufactured, these are products that you can only find in remote Romanian villages. I wanted Blouse Roumaine Shop to become a bridge between the contemporary world and the makers, offering the same facilities offered by any online shop, just that all products are traditional, authentic, showing no trace of time passing."* (A. Mares)

These elements are emphasised in the communication strategy. The buyers can choose their favourite item, personalise it, and once the object is crafted, s/he will receive it with a note that tells its story, where it comes from and who made it. More than a product, the customer therefore has the opportunity to learn about, ask for, and then use a piece of culture which somehow connects her/him with a maker and his environment, with a full understanding of the investment of time, skill and creativity as added value.

With respect to the product range, at the beginning BRS marketed traditional blouses, with models and patterns corresponding to the cultural traditions in different areas of Romania. Antoaneta tried to balance several factors in choosing her product range:

> *"I choose reference models for specific geographical regions. I want them to be representative, but at the same time (..) I also try to selected those models that can be worn day by day. So I also keep an eye on fashion trends. And I realise that some blouses, even if they are traditional and reflect well a folk line, can only appeal to connoisseurs, as collectable pieces, they would not be worn."* (A. Mares)

In time, the product range was expanded. Blouses woven with traditional weaving looms were introduced, and given the more affordable price, quickly became best sellers. Decorative objects and then, gradually, products designed by Romanian contemporary fashion designers were introduced. The founder was however cautious with the introduction of new garments and objects. Apart from maintaining the ethnic line, she also wanted to maintain the spotlight on the core piece, the *ie.* She noticed as well the potential of vintage pieces, which were appreciated by collectors, or could even be worn. She began scouting for vintage pieces in good condition, which also became products with a high demand.

Figure Vintage Romanian *ie* blouse sold by BRS, approximated at 60 years old. Source: Blouse Roumaine Shop

The brand is promoted locally through local press, and internationally through social media (Facebook, Google Adwords, Instagram, blogging, etc.)

Customer relationships and customer engagement

From its start, BRS addressed both Romanian and foreign customers, with the website language in English. Overall, eighteen months into the business, 80% of customers are Romanian and the rest are foreign. While for the kind of products marketed customer retention is low in the field, BRS tried to ensure brand loyalty by offering quality products and an overall buying experience customised for every person, thus aiming to cover more than a functional need. With the programme *Artisan sure mesure,* each customer can customise the product s/he orders, from adding initials to changes in the embroidery. Several products were also designed on special occasions. In winter 2014, awaiting the Romanian holiday of *Dragobete* (an indigenous holiday celebrating love), BRS teamed up with Carrefour and a young Romanian designer to make pillow covers adorned with modern interpretations of traditional Romanian characters associated with love, and short poems from Romanian folklore.

Impacts on makers and the craft sector

Traditional Romanian makers operate in a business climate that is still poorly regulated and organised, afloat in a lengthy and incomplete transition from the Communist management model, which collapsed at the end of 1989. In general, many craftspeople work and sell independently, some have businesses alone or in groups, but in the sector accessed by BRS local craft cooperatives are still in place, emulating to some extent the Communist model. Over the past two decades, craftspeople faced a declining demand for their products, which has endangered their position and their continuity.

The impacts on the broader crafts sector need to be seen in context. BRS opened at a time when there was a growing interest in tradition and crafts, especially for clothing and decorative objects. In 2013, apart from BRS, two other online shops were opened: *Iiana* and *Romanian Label*, and others were opened afterwards (e.g. *Anilu*). All these businesses achieved success, but had slightly different marketing strategies. For instance, BRS remained more centred on the traditional blouse, the *ie,* and cautiously introduced other decorative objects or products by contemporary designers, so that the connection to the central piece and brand name would not be lost. This meant that even though they were direct competitors, in time these brands managed to establish slight distinctions in brand and product positioning, so that they could work with a number of providers, and appeal to slightly different market segments.

The fact that all these businesses continued to function meant that the impact on the market and the makers was higher and can be analysed at two levels. Firstly, the most direct impact on makers was related to the offer of a sales venue, along with promoting and marketing them. This contributed to improving the financial standing of a selected number of makers, at least for a period of time.

A second broader indirect effect relates to the contribution these businesses made to re-positioning folk lines in fashion and decorative objects within the contemporary market. Products such as the traditional *ie,* outfits with folk patterns, carpets, and homeware were promoted as cultural products that were no longer obsolete, but fresh, fashionable and desirable. This opened the market for the makers, even for those who did not trade through an online shop or other companies. The new trend meant that craftspeople had a larger customer base even when selling objects through fairs, as they typically did.

The BRS experience also encountered a series of difficulties, which serve to identify the factors necessary to take into account in partnerships between traditional makers and entrepreneurs. Underpinning these challenges was a difference between the intentions and work style of each party. The BRS model required a continuous work pattern following commissions, commitment to quality and timely delivery. Local craftspeople, on the other hand, were not driven by a profit-making motive, and often inclined to honour the commissions as long as their own work patterns and additional duties were not affected. The clash was visible particularly in establishing a constant demand pattern aligned to the commissions received. At the beginning, BRS received a large number of orders, all of which had to be honoured in an agreed timeframe. This rhythm was not easy to accommodate in the makers' routine, which had their own work tempos, mostly following seasonal patterns, for instance dedicating themselves to craft work more during the winter. Now, that they had continuous orders, makers found it difficult to deliver on time. Working with cooperatives (each aggregating 30 to 50 craftspeople) meant that more makers were available, yet the higher number did not necessarily guarantee that work was assigned appropriately.

Summer, the top season for wearing and ordering light blouses was also the time when makers could be busy with other seasonal work. In the experience of BRS, only a proportion of makers and cooperatives were open to change their working rhythm to honour their commitments.

Overall, BRS illustrates a successful example of partnership in which traditional crafts and entrepreneurship can be blended to position and market craft products, and improve the makers' economic standing. The challenges encountered provide additional key points to take into account when encouraging and managing these partnerships.

4.3.5. Impacts on professional careers

Technology integration can occur in several different areas of craft practice, from sourcing and design to making and marketing, each associated with distinctive effects on the current position of craftspeople and their careers. Some technology integration scenarios have a direct impact on makers and their practice, while some influence the broader ecology in which makers design, produce and sell works. In terms of the internet for example, the impacts of digital technology are contextualised in an almost unprecedented and pervasive social interest in crafts and DIY making. What is known as 'The Maker Movement' is a global phenomenon characterised by a revival of interest and involvement in making as consumer, hobbyist or professional practitioner. This results in a renewed interest in crafts and the handmade, and the grassroots development of informal channels for transmitting craft skills, sharing information on craft techniques and materials, and engaging in craft-related activities in the online and offline sphere. A series of key impacts on crafts people's professional standing and careers resulting broadly from digital technology usage and the effects of the maker movement are outlined below.

Blurring the lines between amateur and professional craftspeople and increased possibilities for career change/career return. An increasing number of people take up craft initially as a hobby, some gradually starting to sell in a restricted circle, and then slowly moving towards part-time or even full-time practice. This trend is significantly backed up by the availability of online learning content, and the existence of online communities that can provide support in a matter recalling (though in a very different manner) place-based craft communities or guilds. Professional reconversion towards crafts is therefore a growing phenomenon. This trend is already indicated by research conducted in the UK. For example, in a 2012 report by the Crafts Council, UK, the following categories of contemporary makers were proposed:

- *Crafts careerist*, with crafts as primary career and having professional qualifications in art, craft or design
- *Artisans*, with crafts as primary career and no professional qualifications
- *Career changers*, who take up crafts as a new career, usually in mid-life
- *Career returners* who return to craft, in which they were originally trained, after pursuing some other career.

The last two represented 27.5% and 22.5% from the sample surveyed, indicating that career change and career return is quite common.

Widening and strengthening work patterns based on multiple roles and attributions.

Craftspeople may source their revenues from multiple roles and jobs, including direct making, advisory services, work in the industry, teaching, events organisation, and involvement in community-based work. This work pattern, also termed 'portfolio working' is becoming increasingly common amongst craftspeople. In the UK, 65-70% of contemporary craftspeople are believed to maintain portfolio careers (Schwarz and Yair, 2010). With digital technology, multiple opportunities for work may arise, which can reinforce this broader work pattern. Whilst portfolio careers can be highly rewarding (in terms of greater variety, learning, contribution to society), they also require greater flexibility, responsiveness and adaptability.

Requirements for more complex skills sets, including digital literacy, entrepreneurial, strategic and social skills.

With all the opportunities afforded by digital technology, inevitably competitiveness is also increased. Competition comes in particular from opening markets to low-priced products produced in countries with low labour costs, but also to products made with considerable skill and time investment, an attractive aesthetic and reasonable price. In this context, makers need to learn how to be strategic about the way they promote and market their work, and how to communicate their competitive advantage to potential consumers. Digital literacy is only one step on the required skills ladder. The ability to work with computers needs to be complemented by abilities to communicate well, have a sense of potential markets and consumers, and act strategically within an increasingly competitive market.

Emerging professional profiles bridging craft and digital fabrication skills.

A new breed of professional is emerging, bringing together a passion for and knowledge of crafts with an awareness of the potential of digital technologies. This profile is not fixed, and can lean either towards the crafts with a focus on hand making or towards digital fabrication. At its core resides, however, an interest in using digital technology to give form to creative expression in innovative ways.

Wider grey areas between traditional and contemporary skills and makers.

The dividing line between the traditional and the contemporary, was once more clearly defined, but is becoming increasingly blurred. Craftspeople with contemporary profiles may become interested in patterns, themes, techniques and materials from the past. They may want to acquire skills and ways of making that are disappearing but which can be redeployed. Similarly, practitioners who inherit a traditional skill may slowly gravitate towards original contemporary forms.

Increased opportunities for home-based and independent businesses.

Craft as a profession relies heavily on micro businesses and independent work. This trend is reinforced by the opportunities offered by ICT. The various possibilities to promote and sell products online complement traditional marketing and retail venues such as shops, fairs, exhibitions, direct commissions, etc. While the latter continue to represent the most important opportunities for sales, many practitioners who cannot afford these can choose to channel their efforts solely or mostly towards the low-cost online medium. Yet to profit from these new online opportunities, there is a need for effective engagement, strategic thinking, and the infrastructure for closing transactions (online sales, transportation, etc.). Craft makers working and selling products in isolation are often restricted to local markets only. Along with a basis of digital literacy and entrepreneurship skills, there is therefore a need to create links and networks that can expand access to new markets.

4.4. Trends, opportunities and recommendations for a craft revival

'Craft revival' is understood in this study as a global development by which craft is (re)gaining an influential position in contemporary societies. The focus, in this chapter, is to understand how digital technologies can contribute or is already contributing to this, by spearheading innovation and creative thinking, and strengthening the position of practitioners in the society and the creative economy. To some extent, we are already witnessing a craft revival, yet our contention is that current developments are only outlining directions for future growth, which need to be cultivated and encouraged towards a broader coverage, particularly towards some European regions that are lagging behind. Attention also needs to be paid to a somewhat paradoxical set of processes and trends that underpin the contemporary crafts landscape. On the one hand, there is an increased interest in making and a maker culture, as advocated by The Maker Movement. This interest permeates maker communities, wide social segments and consumer markets, and is underpinned by a broad ethical concern with encouraging localisation, hand making, and sustainable and ethical living. These phenomena are widely spread and have resulted in a renewed interest in both traditional forms of craft along with what they may engage with (ethnic patterns, old making techniques, old materials) as well as for new forms of craft, especially in relation to digital manufacturing. At the same time, some forms of craft can undergo a continuous decline, particularly in the case of traditional crafts. These two broad tendencies may have an unequal effect on makers and craft practice in different European geo-political areas. While the breadth of the study did not afford a precise regional statistical mapping, this section outlines opportunities and challenges associated with a crafts revival, some in full development, and some incipient, which can stand at the basis of a larger and more widely spread revival of crafts at European level, by exploiting the potential of digital technology.

As argued in the previous section, DT can offer a wide range of opportunities for craft makers. Yet these are unequally spread and integrated across Europe and vary according to different areas of professional practice. The question addressed herein is: *How can the potential of digital technology be unlocked so that more craftspeople from diverse areas of practice benefit from it?* This question is answered by mapping opportunities, challenges and recommended solutions, best practices or ways forward for three key areas in craft practice where technology can bring significant advantage:

- Creative practice
- Business growth
- Craft skills development

Unlocking technology potential for creative practice

Opportunities

- Speed up production and increase volumes while retaining aesthetic characteristics and unique craft qualities through hybrid manufactured and handmade production
- Enhance digital creativity through the exploration and visualisation of concepts and ideas
- Facilitate experimentation through rapid translation of design concepts into prototypes and/or final pieces
- Enable the production of new objects and unique designs affordable only through ICT

Challenges and pitfalls

- Unequal access to technology and equipment
- Unequal access to knowledge and the opportunities for skill building
- Concerns over losing the value of the handmade and the artistic contribution

Solutions and best practices

Successful innovation can result when high-end technology is integrated in making processes whilst maintaining a distinctive craft ethos. At the same time, this needs to account for differences between an *artistic ethos*, rooted in personal contribution, and a *collective and ancestral ethos*, rooted in a long tradition of making. For traditional makers, a craft ethos may equate with the reproduction of models and patterns inherited from the past. These constitute different premises for the integration of technology in making with regard to a distinct and demonstrable heritage.

Concerns over unequal access to technology, equipment and skills building opportunities can be addressed through creative partnerships and creative clusters, involving in particular technology providers and higher education institutions that have suitable facilities.

Unlocking technology potential for business growth

Opportunities

- Benefits associated with innovation in making processes, especially speeding up production volumes while maintaining craft value (e.g. mass manufactured objects with hand finishing; or the use of additive manufacturing for casting and rapid prototyping)
- Faster production processes
- Faster and new routes to market
- Online sales
- Reaching wider audiences (and potential buyers)
- Customer engagement and relationship management in online spaces
- Increasing interest in craft and craft products
- Opening access to new (international) markets

Challenges and pitfalls

- Unequal access to technology e.g. access to broadband in rural communities where practitioners are often located
- Shortage of skills on several levels: digital literacy, strategic and entrepreneurship
- Unequal access to specialised knowledge
- Increasing competition

Solutions and best practices

To address these challenges, solutions lie in the cultivation of skills as part of continuing professional development and an entrepreneurial spirit, coupled with setting up professional networks, connections and partnership. Several business models appear to be particularly promising:

- Open Studio networks bringing together makers and maker associations
- Cooperative business models and local craft clusters
- Partnerships between makers or maker cooperatives and entrepreneurs (on the model *Blouse Roumaine Shop*, as outlined in the second case study)

These can be sustained in practice by financial support and incentives for partnerships and networks, setting up creative clusters, and enabling skills acquisition in workshops and experimental settings.

Unlocking technology potential for craft skills development

Opportunities

- Grassroots development of informal educational venues and networks
- Recording and archiving possibilities
- Increased availability of online content both user-generated and from formal education (e.g. through Massive Open Online Courses - MOOCS)
- Support, advice, and free sharing of resources in online communities
- Learning in experimental settings (e.g. Fab Labs)

Challenges and pitfalls

- Increasing decline of specific craft knowledge and skills, particularly in the artisan tradition
- (For formal education) an increased tendency to focus on automated production or technology-focused skills to the detriment of craft skills
- (For learning online) the danger of fragmented, shallow learning, in the absence of enduring mentorship and longer term direct transmission of in-depth knowledge and applied skills

Solutions and best practices

Civil society has an appreciable contribution to make in this area, and the chances are that some solutions to existing challenges will come from grassroots initiatives. More broadly, some of the incipient promising trends, particularly experimental labs in the offline sphere, could become more formalized and widely spread. Interdisciplinary encounters between makers and digital makers, artists, designers are also promising not only for skills transmission *per se*, but also for forging new ways of thinking about skills and imagining the needed skill set of the craftsperson in the 21st century.

4.5. Conclusion

This chapter has examined current developments in the European craft sector, looking in particular at the impacts of digital technology, the opportunities they afford, and how they may be integrated more effectively and at a wider scale in crafts practice. Impacts and uses of digital technology have been mapped at several stages in the craft product development lifecycle. In design and making, novel *manufacturing/production* opportunities are emerging, including additive manufacturing, which are providing new opportunities for skilled makers to blend hand-making and hand-finishing with volume production, bring innovation to their designs, enhance creativity through visualisation of concepts and ideas, and produce sophisticated objects that were not possible with traditional means. The online medium, and in particular social media, expand opportunities for better positioning and communicating the value of craft objects to wider audiences, offering novel networking and connection possibilities, and platforms for learning, skills building and knowledge exchange. Coupled with the possibility for online sales, these opportunities can strengthen the economic standing of craft practitioners, and encourage innovative business models. However, technology integration and usage, and the full actuation of its potential are conditioned by unequal access to technology and require specialised skills that are not universally affordable. This strongly suggests the need for specialised training, and also points to the advantage of supportive networks, craft collectives and partnerships between makers and entrepreneurs, which can strengthen the position of the makers in the creative economy. Moreover, interactions between craft and other sectors of the creative industries and the wider economy are crucial to cultivating experimentation, creativity and innovation.

Capitalising on the potential of digital technology for a craft revival requires, moreover, an increased sensibility and awareness of the pivotal position of craft, situated at the intersection of social, cultural, economic and technological dynamics. Craft bears a cultural and a historical dimension, drawing on the intergenerational transmission of skills, techniques, and ways of working and relating with materials. Techniques and skills particular to a craft tradition are part of a society's or community's intangible cultural heritage. Likewise, the complex patterns, motifs and themes imprinted, embroidered or marked on craft objects contain complex symbols and cultural meanings, which can reveal (hidden) histories and identities. At the same time, craft and craftspeople have an important role to play in present-day social and economic processes. Craftspeople and their knowledge and sensibility towards making processes and materials can be at the forefront of social, economic and technological innovation – advocating sustainable local development, endorsing an environmentally sensitive ethics, or contributing to the creation of new products and materials. This multifaceted nature of craft place it in a unique position as an instance of European cultural heritage, one which embodies both old and contemporary dimensions. The endangered status of craft, especially heritage craft, is therefore not only a threat to European heritage, but also a very real and present-day threat to the position and standing of thousands of European makers.

This multidimensional dimension of craft as a joint product of the past and present was taken into account in this study, when assessing the role of digital technology in a craft revival. Attention has been paid to ways by which preservation and safeguarding can be done not only in an optic of archiving, storing and providing access to knowledge about craft or specimens of craft objects. But rather, by understanding how socio-technical infrastructures can be put in place that encourage and support the transmission of craft knowledge and skills to contemporary makers and future generations.

One of the most remarkable achievements of the recent years is associated with the influence of the Maker Movement, which led to an unprecedented resurgence of interest in craft, stimulated the formation of (online) maker communities for encouraging knowledge exchange and transmission, and re-positioned craft and craft products in contemporary societies and economies. The attainments of the Maker Movement demonstrate that digital technologies can be used to strengthen, rather than jeopardise the position of crafts. They also prove that strengthening the position of craft does not imply that past ways of making should be exclusively replicated. On the contrary, ways of making constantly evolve, in a lucrative dynamics between transmission and contemporary influences. At present, established craft traditions are just as relevant as new forms of craft, some of them integrating digital technologies in old paradigms of making, and some coming up with a complete re-configuration of the processes, tools and techniques for making, for instance in the case of additive manufacturing.

The study showed as well that there is no unique response to how much place can be given to technology integration in making processes. Craftspeople themselves vary in their openness to technology use. As the empirical study conducted in Romania showed, the adoption of digital technology by craftspeople is not only a measure of functionality and efficiency. Craft activities embody and express cultural or artistic values, they may transmit the spirit of an age or be used as a space of personal expression by makers. The study suggests that the integration of digital technologies should therefore be considerate of social, cultural and human values associated with and embedded in craft practices. More than being merely skilled traders, craftspeople are animated by a craft ethos, beholders of complex knowledge, competences, but also ways of thinking and being that are of immense value to European societies.

Chapter 5: Transformation of physical spaces, places and territories (DOW)

The overall aim of this chapter is to develop instruments and guidance for local public administrations in managing public activities connected to cultural heritage in the meaning of the project, i.e. concerned with contemporary 'living cultures'. In both case studies, cultural heritage was reinterpreted and recreated and, in its new form of presentations plays a vital co-creative and participatory role in the expression, production and consumption of culture. The research implemented in this context will generate new knowledge about the potential of digital communication related to this process. It will show how far digital means were used within the process of recreation for influencing, changing and transforming the relationship and the dialogue between local and public administrations and their audience.

The research presented in this chapter embraces local administrations, as well as physical landscapes and monuments. It has explored how the transformations of physical places are impacting on the relationship between administrators, citizens, civil society and the economic sector; and more specifically how digital communications are supporting dialogue and exchanges. The methodology used included the analysis of the use of social media and website, 3D representation of new urban planning, virtual spaces explored before their physical realization to achieve a common understanding of the impact of changes on physical spaces.

The research also includes an investigation from the point of view of CH collections or owners (e.g. of buildings or spaces), curators and users, on the value of GIS applications (including apps for mobile devices). These provide explanations and links to features related to CH places and enable visitors to contribute interactively to the creation of new knowledge about CH places. Based on this overall approach, two case studies were selected, investigated regarding the aforementioned involvement of digital means and comparatively evaluated: The project FRIEDA 23 in Rostock/Germany and the local district of Hamamönü in Ankara/Turkey.

1. The Hanseatic City of Rostock analysed **the local project FRIEDA 23** a new media art centre in Rostock. In this case, a characteristic part of German Democratic Republic (GDR) style of architecture and witness of this particular period in Rostock's past was prevented from being torn down. Instead, an innovative form of refurbishing it after 30 years of operation according to the originally intended mode was developed. Based on a participative process that involved many players of the local art scene, as well as the wide local public, the former East German (socialist) school building was established as new media art centre. It combines a school, workshops, an art gallery, a movie theatre, a studio, office premises, a conference centre, an event location, a technology centre, a café and a library. The restoration process itself was implemented as a co-operation between several companies and institutions, the public and the administration.

The project was chosen as one of the case studies to be investigated here because it was the first CH revitalization process in Rostock that to a significant extent used digital media to increase the public perception, awareness and participation. By doing so, using the technologies in common usage during the restoration period, (today's tools would have even greater interaction and impact), it prepared the ground for several participatory projects that were stared in Rostock in 2013 / 2014 and are still in the implementation process. Thus, it can be stated that the FRIEDA 23 project started a new communication culture related to cultural heritage, in this respect widely influencing the future CH work in the location.

2. The Kültür ve Turizm Bakanlığı (KYGM) investigated **the transformation process of Hamamönü district** implemented by the Altindag municipality of Ankara as an example for reinterpretation and recreation of cultural heritage as a transformation of physical spaces, places and territories that impacted on the district in all aspects. Although a place rich of tradition and historic importance, prior to the restoration Hamamönü was a derelict, unfriendly place but after restoration it became a tourist friendly place. Houses were re-built to conservation standards to retain most of the original features and the district now has art galleries, museums, hand-crafts, slow food places and a library. It is once again recognised as a culture tourism destination, as well as a place of culture for the Altindag inhabitants.

This case study was selected here as it is unique in Ankara regarding the extent of cultural heritage revitalization and included the use of digital media to an extent that had not been experienced before. Different from the FRIEDA 23 project, where mainly the local citizens were approached to encourage their participation into the revitalization process, this project intents to attract supra-regional attention and, thus, uses different forms of digital media with different intention.

When analysing both case studies, two key research questions were asked as follows:

1. To what extend does the chosen project of re-creating physical cultural heritage spaces imply digital technologies, like social media, 3D presentations or GIS mapping?

2. Does the use of such digital technologies support and increase the dialogue and exchange between administrations, citizen, civil society and the economic sector?

Different methods and sources were consulted to gain information about the examples aims scales and scopes. The main sources of information were websites, reports, newspaper and articles. As the re-creation has taken place just recently and is even in progress to a certain extent, the situation is not fully covered by these publications so that, in addition, semi-structured interviews were included as additional research method. In this way, informants had several options to express their views in their own terms. For this case study each partner wrote a report, collating information sourced from secondary data and from the interviews to extract meaningful information about the impact of digital technologies on the relationship between them. Based on this compilation of information, joint conclusions were drawn which are presented at the end of the chapter.

5.1 Case study 1: The project FRIEDA 23 in Rostock, Germany

5.1.1 Overview and History

For the research of the transformation of physical spaces, places and territories, Rostock worked in a new close cooperation with the culture association KARO gAG, a non-profit stock company. The name KARO stands for Culture Shares for Rostock. FRIEDA 23 is a new media art centre in Rostock. It includes a school, workshops, an art gallery, a movie theatre, a studio, office premises of the different institutions' staff members, a conference centre, an event location, a technology centre, a café and a library.

Figure: First digital presentation of the coming revitalized FRIEDA 23 building

As indicated before, the initial cultural heritage building that was reconstructed to enable this media art centre is a 30 years-old former school building in style of the block flats that were so characteristic for East German (socialist) architecture, not only in Rostock, but all over the GDR. The name derives from the location of the building: it is at Friedrichstraße 23 in the Hanseatic city of Rostock.

Figure: Frieda 23 building before restoration

In summer 2012, after a preparation period of nearly 10 years, the complete refurbishment and structural reorganization of this building started. About 20 months later, and in spring 2014, the ceremonial opening of the FRIEDA 23 followed. Today, FRIEDA 23 has more than 2,800 square meter effective area and a large court at its disposal.

Figure: Frieda 23 building after restoration

The architecture and equipment of this building are based on the Bauhaus principle: Strict geometric forms following the principle of 'form follows function' aesthetic. Thus, a clear reference to the past of the site is made, as in this particular regional context, Bauhaus shapes are very much associated with the architecture of the German Democratic Republic – the revitalized building looks modern and traditional in that sense at the same time. Furthermore, the way of building revitalization corresponds with image and functions of the premises: Learning, experimentation, production, and presentation are what matter most. The power supply lines have been laid on top of the plaster and the pure concrete stays visible. The floor consists of screed. Large windows to all sides flood the house with natural light. The house reveals itself as what it is, a workshop. Nothing distracts in any way – neither architecturally nor technically. The internal architectural style lacks any decoration and does not distract, therefore allowing the visitor to be creative and productive. They invite the visitor to be creative and productive. This results in an atmosphere where potentials, visions and talents find complete expression. Several small rooms were merged to create a big studio with 90 square meters for modelling and painting. This offers ideal conditions for seminars, preliminary studies, exchange of experience and group dynamics. In addition, there are also smaller studios of 50 to 60 square meters for painting, graphic arts, installation and sculpture. For the work with gypsum, clay, wood and metal in larger dimensions, FRIEDA 23 provides several more ateliers and workrooms including a high quality photographic laboratory. Except for very few common rooms, all available space is apportioned between the rental parties of the FRIEDA 23. Each party takes advantage of the fact that all studios, cinemas, computer cabinets, radio stations and all the presentation equipment are effectively interchangeable among each other, when needed.

A modern computer cabinet offers the user different opportunities within digital photography and media education projects for school classes. All the rooms are suitable for group work including the printing workshop with traditional presses. Several seminar rooms are equipped with modern presentation and video technology and therefore suitable for business meetings of all kinds. In the editorial rooms as well as in the radio and recording studios young people produce a 24 hour radio program every day. Progressive and well equipped video, TV, multimedia and comic studios produce information and entertainment formats of tomorrow. Some productions have their movie premiere in the in-house cinema *Lichtspieltheater Wundervoll* (Li.Wu). The larger one of the two cinemas has 130 seats. The smaller is a multifunctional room that can be used either for cinema and other performances and for events and has 50 seats. Both cinemas are equipped with both, traditional projection and screening and high-quality sound and projection technology.

The spacious foyer does not only receive the guests of the cinema, but is used by all institution resident at the building for events of all kinds. There they can present their work and enter into an active dialogue with the city's inhabitants. This "shared space function" and its location inside the building is what gives the place a strong digital presence and outward appearance. Thus, it serves as a linking element between the FRIEDA 23 as a material site and the FRIEDA 23 in its digital presence, i.e. a location that virtually presents the free cultural work in Rostock. Furthermore, the newly designed courtyard is often integrated in the events, for instance during the big open-air-summer-cinema. In the meantime, i.e. between the events, the courtyard is a place to meet for a coffee or a smoking break or to have an informal working exchange. It is unperceptively a highly important area for in-house communication between the institutions, although overlooked in comparison to the foyer area which has more of an identity-creation space that works internally and in real-life.

Accordingly, the question, what kind of elements within a cultural heritage structure are usable for digital presentation and communication was considered within the scope of this scientific work. Related investigations, in the course of the interview, caused interest from the respondents to discuss this further, but no clear working thesis was defined. The same applies for the implemented desk research – no reflections on this interrelation were found. The authors of the article, in the end of their investigation specified the question on whether the suitability for digital presentation more strongly depends on the physical shape of a space or on its function. In the case of FRIEDA 23, it seems to be the mainly the function of the foyer area as it has so much in common with the main message that the project intents to portray publicly. The available space in shared use leads to a previously unknown and unique flexibility in the cultural scene of the city of Rostock. Everyone will always find the ideal space and scope for new projects and enough leeway for cultural creativity, which provides potential for interdisciplinary co-operations and the opportunity of easy networking across the various fields of cultural offers under the roof of FRIEDA 23.

Another important message is placed via digital media to the visitors by presenting the technical equipment of the place in accordance with the latest technical standards. Since the renovation of the house, the centre has disabled access designed with a lift that is wheelchair accessible. Additional advantages are the effective insulation, a sophisticated heating system and modern building technology which results into extremely low operational costs. What is also communicated in the building's presentation is that the designs and planning of the architects and engineering team that has supported the flexible, multifunctional and interdisciplinary use of the building from the beginning. Through dividing larger rooms and connecting smaller rooms with each another, an optimized space concept of a sophisticated culture and technology centre has been turned into a reality.

This is demonstrated both on the website and via social media, as well as regularly referred to in event-related communication of the tenants of the building. It makes a clear reference to the cultural heritage that has been revitalized here (an architecture that is symbolizing the style which was very common at the time of construction) and is the place of learning of exchange that corresponds with the "traditional" function of the building. Still, it is not only a reference to the past, but also a symbol of new opportunities – a modern place with historical awareness. This again, falls back on the self-perception of the artists and creative industry players who work in the building: The classical image of an artist sitting and working alone in the artist's atelier is long obsolete – a thing of the past. In Rostock, the new generations of artists learn and create in one of the most important cultural and educational institution in Mecklenburg-Vorpommern – FRIEDA 23.

Summarizing it can be stated that, with the extensive re-development works completed, the project FRIEDA 23 has reached the aim of merging together four cultural facilities, all of which are rich in tradition and yet very modern. The future aims are ambitious: to reach unprecedented levels in Rostock's cultural scene and being considered as an excellent talent incubator that provides an impetus for new things. Even much more than in the past, the successful implementation of these ambitions, will depend on the activities of the institutions themselves, as well as on a digital media-based communication.

5.1.2 Planning and financing

In addition to presenting the location FRIEDA 23 as the place it is today, the protagonists refer to the revitalization process itself for the project's innovative. In many presentations and even before the reconstruction activities were actually started, they used digital media for presenting the project as the new standard for culture and media centres, even with the planning and financing concept. For the purchase of the property, for construction and the initial operation of FRIEDA 23, four key actors founded a non-profit and charitable stock company – the KARO gAG. The name KARO means Culture Shares for Rostock. The non-profit company was founded in 2009. The four associations were the Art School of Rostock, the media art school called Institute of New Media, the art cinema Li.Wu., and the local citizen radio called Lohro. Throughout the project development stage, this aspect was one that was very much in the focus of digital communication on the site – as it was something that was extremely helpful for attracting the high level of public commitment the place needed. It was essential to get this commitment – not only to get the needed political support, but also to get the required financing. Selling small shares in the project to the citizens of Rostock was one financial pylon of the project, but also with the positive image of the site was an important reason for the bank institution to provide the needed loans. The share selling was mainly arranged via the project website since 2010.[88]

Together, based on a joint understanding that joint working space allows a better exploitation of synergies and new levels of cooperation, the aforementioned four players had bought the former GDR school building for reconstruction and revitalization in the form of a modern art and media centre. They knew each other since the early 1990s, when they all were newly founded after the political changes. Already then, they stated a cooperation that was characterized by close cooperation and mutual support. Sharing a place was just a logical consequence out of this development, so the project was strongly supported by all of them when the Art School proposed the project.

[88] Invitation to invest into FRIEDA 23 shares published on the project website: http://www.karo-ag.com/frieda23/haus/#!/spenden/

The trademark FRIEDA 23 was established in local and regional cultural contexts in 2003, by regularly presenting the idea in local media, making a reference to a more detailed concept that was disseminated mainly via digital means: a website, mailings and, later, social media. When discussing the financing of the planned cultural heritage transformation, a loan from a community-operated bank and the aforementioned selling of shares were not only important for the project implementation, but also for the presentation of the site as a place that belongs to the community. A digital media presentation was prepared, channels like Wikipedia[89] and YouTube were used to present the place in a way that symbolized seriousness as well as modernity and openness. The activities of the FRIEDA 23 were included into local event calendars, printed and digital ones, to promote all activities that were open to public and suitable for increasing the commitment in the site.

For professional planning, KARO gained the Rostocker Gesellschaft für Stadterneuerung, Stadtentwicklung und Wohnungsbau (RGS) (Rostock society for town development, renewal, urban redevelopment and housing construction). The RGS was commissioned to handle and support the construction project. The Hanseatic City of Rostock supported the project and the liquidity during the construction phase with 150.000 Euro. With 2.900.000 EUR, the major costs of the 4.8 million Euro project were covered by urban development funding. In addition, the KARO gAG paid 150,000 Euro out of own financial resources and took two loans, one from the community bank and one from a local bank. The repayment has been made out of the rental income since the restoration works were completed in 2014. Financial security was gained for the project through the status of being a charitable community project and through a guarantee from the Landesbürgschaftsbank. The construction project started in 2012, lasted 15 month and was completed by April 2014.

5.1.4 Implication of digital technologies within the transformation of physical space

Recent analyses of the digital society and the challenge for cultural institutions have shown that technological developments, including innovative computing technologies, network technologies, mobile devices, interactive media, big data, open source work and social media, influence our life to an enormous extent. They took significant impact on how information is handled, on how people communicate – on all spheres of life. Starting from this general observation, the use and the role of digital technologies within the project FRIEDA 23 were investigated in this deliverable. The results were gained through semi-structured interviews with protagonists from the different relevant spheres as follows:

- Group 1: Those in charge of the project, namely the contact persons of the Institution for New Media, the Rostock School of Arts, the Art Cinema Li.Wu., the Heinrich Böll Foundation and representatives of the KARO gAG
- Group 2: Members of the public who got in touch with or are regularly involved into the work of FRIEDA 23 via digital media
- Group 3: Representatives of the local administration of the City of Rostock as the municipality in charge during the project development process and financially supporting the project during and after the restoration period.

[89] https://de.wikipedia.org/wiki/Frieda_23

The interviews undertaken comprised two parts. The first section concentrated on the use of digital technology, its relevance and a possible shift of use during the project phases of FRIEDA 23. The questions raised aimed to identify the roles different digital technologies play during the individual stages of the project process and to determine how valuable/ useful digital media were as a tool for implementing the project and for purposes of public relations work. By referring to a frequently used presentation of the future building as a 3D representation, the success of using this model in digital media for raising the public understanding and the understanding of the local administration was investigated.

The second part of the interview focused on the question whether the use of digital technologies support and increase the dialogue and exchange between administrations, citizen, civil society and the economic sector or not. For this section, the interviews focused on the following questions:

- How far does the transformation of the physical place of the former School to a cultural institution influence the relationship between administration, public and the institutions themselves?
- To what extend did digital technologies support communication and dialogue between administration, society and responsible project sponsors?
- What have been the expected synergy effects? Were they met?

The investigations on the use of digital technologies during the revitalization process itself revealed that digitisation and digital technologies played an important role for the realization of the project FRIEDA 23 at multiple levels. In the focus of all interviews with the protagonists who were directly involved into the project was the aspect that it was digital media which enabled the commitment of the public to an extent that made the project implementation possible at all. The forms of presentation listed below made the construction project accessible from the first moment of the brainstorming on, until the completion of the project.

Digital technologies used were:

Digital audio	Social networking / Facebook
Digital radio	Event posting
Digital press	Google mapping
Digital television	Electronic publishing
Digital photography	Instant messaging
E-mail	Chatrooms
Websites	Audio-, video-, web conferences
Dropbox & cloud services	Internal communication and exchange with third parties

In 2004, probably the most important and initial digital technology became active, the website of the culture association KARO gAG, the non-profit stock company whose members were the initiators of the project FRIEDA 23. The website was used as a platform to advertise the project idea, the initial concept and to share information during the project[90].

[90] Presentation of the concept on the website of the karo gAG published in 2009 in combination with statements of local VIP

As soon as the construction works were started, information on the related progress were published, photographs and information were posted regularly. In addition, every partner published news and promoted the project themselves through their institutions websites[91]. Throughout the restoration process, email, private chat rooms as well as audio, video, and web conferences and instant messaging and shared storage spaces (like Dropbox and cloud services) were the most common methods of interaction between project partners. The essential need for an efficient information management and effective knowledge spreading were decisive for changing from analogue towards digital communication step-by-step.

Considering that all members of interview group 1 described this development as specified above, it is surprising is that according to Dirk Jurkschat, member of interview group 3[92], indicated that these methods of communication and sharing were not applied for the interaction between project partners and the local administration of Rostock, apart from very few exceptions. The department was kept informed about the progress of the project through a monthly email newsletter, but was not aware of any other flow of information based on digital media at that time. Asked for the reasons for this, Dirk Jurkschat mainly refers to the working mode within the municipality at that period of time: "Application processing did not work digitally, but analogue within most public administrations in Germany by then."[93] It was only after the realization of the project was agreed upon, digital technologies such as digital audio, digital radio, digital press, digital television and digital photography were deployed by the all partners involved into the project. The online newspaper "das-ist-rostock" (That's Rostock)[94] began to publish articles to keep the public informed about the project, main topics being the progress of the construction work, obstacles and problems as well as decisions taken in communication of active citizenship, the administration and the project partners. For this decision-making processes, by the way, digital media were used only in the form of email communication and use of joint storage spaces for working material.

Furthermore, the local citizen radio LOHRO as one of the four partners in the FRIEDA 23 consortium used its resources in the digital radio segment to inform and encourage the public to actively participate in the project. In this context, participation included more than 'visiting': it addressed the local citizenship, encouraging them to contribute, share and redistribute, to create and to appropriate. The overall aim of this communication campaign on behalf of the entire FRIEDA 23 consortium was to make people act, not only as consumers of the places offers, but to get involved with own ideas, practical support and financial contributions, lower or bigger sums. The Institute for New media (ifnm) and the Li.Wu., two other partners of the main FRIEDA 23 consortium, used digital technologies to reach the public as well. They created a short movie on the project and published it on several websites and on YouTube. The short clip addressed the public, asking it to actively participate in the reconstruction process of the former school building.

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supporters like the senator of culture: http://www.karo-ag.com/wp-content/uploads/2011/12/Frieda-Projektvorstellung-Brosch%C3%BCre-Gesamt-Web.pdf

[91] www.lohro.de, www.ifnm.de, kunstschule-rostock.de, www.liwu.de

[92] Interview with Dirk Jurkschat, city administration Rostock, Responsible for culture, film and media in the department of Culture and Monument Preservation Rostock, held on 13.11.2014.

[93] Ibid.

[94] www.das-ist-rostock.de

Public outreach events also encouraged participation and included art campaigns for example have been several art campaigns, construction site parties, a topping-out ceremony, "the open festival" a culture exchange and many more. Here, digital technologies were used to invite the public to join the events and for presenting the project during the events.

Summarizing, it can be said that in this initial stage, digital media were used for internal communication as well as for keeping the local public informed about the project. Being very much dependent on a strong local support, it can be speculated the project would probably have failed at this early stage without digital technologies as, only with them, was possible to get the wide recognition that was needed. Furthermore, the use of digital media enabled a new communication quality, as people got the chance to ask questions, send feedback and comment on activities which significantly increased the community feeling related to the FRIEDA 23 project even at this early stage.

Figure: Advertisement spot issued to promote the institution Karo gAG

When the actual construction phase started, Facebook as a medium for social networking was used to target especially a new and younger audience. In answer to the question of why Facebook was chosen as the main tool for social media activities. Simone Briese-Finke, member of interview group 1,[95] said:

> *"Facebook still is one of the most popular online platforms in Germany. Twitter, Google+ and other social media websites cannot keep up with Facebook user figures. It is one of the main reasons for a rapid increase of information sharing through the internet."*

[95] Interview with Simone Briese-Finke, member of the KARO gAG (the organizational structure behind the FRIEDA 23 in the form of a non-profit shareholdership), on 20.10.2014.

Analysing the statistics of unique users in the first half of 2014 in Germany, Facebook dominated the market with a user percentage of 36%. In the interview, Simone Briese-Finke indicated that Facebook was mainly used for sharing information on upcoming events and again to call for active participation of the local population. It turned out to be the most effective way to raise the public interest in the project and for special events highlighting the trademark FRIEDA 23, as well as attracting new private investors. In particular, referral marketing and menu functions such as "LIKE-" and "share-" buttons within this social media platform were useful tools for the FRIEDA 23 partners to promote, market and spread new ideas and progress within the project. Questioned on this in 2013, almost 62% percent of the 14-29 year old users, members of interview group 2, stated that recommendations from friends on Facebook raised their awareness of the project.[96]

In addition, online brochures, the website www.opennet.de (Google mapping) and different instant messaging platforms were used during this project stage. GIS mapping and the use of mobile applications of all kinds were the only two digital technologies that were not included, mainly due to the lack of a significant financial budget for digital and online marketing. Furthermore, it would have required a considerable amount of time to maintain these digital technologies. Instead, a marketing committee held regular meetings to organize the online presentations of the project and public affairs. As all project partners were working in different locations inside Rostock before they moved into the joint facilities in April 2014, the project had no permanent employees for digital marketing and was bound to the capacities of the single partners and additional voluntary commitment.

The project leaders decided for a 3D presentation as a modern way of product and idea marketing in the cultural sector. This way visitors, as well as potential investors, were able to walk around a virtual building, investigate the direct environment and make themselves familiar with the location. At the beginning of the project the team came up with a cardboard model illustrating how the new building could look. In retrospect it was very simple but it reached its aim. Yet, the understanding for the vision of reconstruction was promoted even more insistent through the subsequently developed 3D model. This way, the project became more tangible and the public started to actively exchange about the idea of FRIEDA 23. The visual perception of the area changed and improved especially through the bird's eye view used in the 3D presentation. This particular presentation of new urban planning offers the opportunity to explore virtual spaces before their physical realization to achieve a common understanding of the impact of changes on physical spaces.

In reply to the question of whether the cardboard model would have had the same effect on people rather than using digital technology, Anne Kellner, member of interview group 1, clearly answered:

"Yes, but a cardboard model only is visible for those it is carried to."[97]

However, this kind of digital presentation only was realized in 2010 after all the hurdles and bureaucracy had been managed and the financing was secured. It is for this reason that the three-dimensional model did not apply when the project concept was presented to the local authorities and when those responsible were looking for sources of funding.

[96] Annual activity report of the FRIEDA 23, 2013.

[97] Interview with Anne Kellner, head of the Li.Wu, i.e. the cinema in the future building and one of the four main FRIEDA 23 partners, held on 10.11.2015.

Frieda 23 Animation

Advertisement for the building Frieda 23 (source: https://www.youtube.com/watch?v=sCvPsq1GVzw)

5.1.5 Role of digital technology for dialogue and exchange

The second part of the interview focused on how far the transformation of the physical place, the re-creation of the former school building into a cultural centre, had influence on the relationship between administration, public and the involved institutions?

Simone Briese-Finke, member of interview group 1, indicated that through the transformation of the building everyone got free access to this important physical place located in the middle of the city of Rostock. The closed system of the former school, open only to a particular target audience had now changed towards a community area of social importance. The creation of an open space now gives people the feeling of being invited and welcome.

Therefore, the relationship between the public and the institutions has improved a lot over the past ten years. Nevertheless, this is only the conclusion of this long-lasting planning and construction period. The next step will be the evaluation of user data of the FRIEDA 23 after its first year of existence. It is the only way to monitor and, thus, confirm the high level of public interest and involvement all project partners hope for.[98] Initial statistics will probably be available by the end of 2015. To continuously expand the project's position in the community of the inner city, the project partner showed a strong presence in the KTV area, which is the trendy district of Rostock where the FRIEDA 23 was build. During the ten year period the idea of the project was presented and constantly promoted in public events of all kinds.

[98] Interview with Simone Briese-Finke, Karo gAG, 20.10.2014.

Susan Schulz, member of interview group 1[99], particularly referred to the renowned FiSH festival (the most important regional festival of the young independent movie scene), the festivals "Rostock Rockt" and "KOMMT ZUSAMMEN" (two of the most important local modern music events), the urban district festival KTV-Fest and the Fête de la Musique. She said:

> *"One can say that the circulation of information between the public and the institutions had a positive effect on the relationship between both. We even saw the project as a public engagement project doubtless and to a large extend being dependent on the support of the citizens of Rostock. The most important key words in this regard are crowd funding[100], voluntary work, financial support as well as interest in cultural issues. We know that a large part of the success of the project FRIEDA 23 is thanks to them and their will to support culture."* [101]

The interviews held with members of the city administration indicate that the administration played a positive role too, making an important contribution to merging four cultural facilities completely independent from each other. The local authority functioned as negotiator as well as financial supporter in the project. This created major synergy effects and raised expectations for new cultural offers. The representatives of interview group 3 also stressed that their expectations are high regarding the synergy effects and the effect from having this large consortium of cultural placers under one roof. They expect the place to be become more than the sum of all involved players, a new breeding ground for the cultural sector of Rostock.

The feedback provided by both parties, interview group 1 and interview group 3, showed clearly that it was the communication process during the revitalization stage was beneficial for the relationship between both parties. Still, it can be summarized from the interviews, that most of the co-operation between administration and project partners (group 3 and 1) was dominated by the traditional communication means, namely telephone, traditional letter post and analogue conversations. Emails, online-conferences or chats were used too, but to a much smaller extent. Decisively responsible for that are the public authorities. The crucial factors here are not the relatively high average age of the employees and not the reluctance of the members of staff in public administrations. The reason lies in the reluctance of the government to spend money for new technology or further advanced training courses or simply in the refusal to invest.[102] Forthcoming projects have to address this major issue to optimize the workflow and exchange of information. Coordination, administrative issues and information sharing need to be improved by using digital technologies.

Nevertheless, this does not only apply for the local administration of the city of Rostock alone, but also for the new media art centre FRIEDA 23. To efficiently manage the additional efforts resulting out of the collaboration of four institutions as well as with the public and local authorities, the way digital technologies are used needs to be improved. The first step towards achieving this goal will be to hire additional staff responsible for cultural and media management.

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[99] Interview with Susan Schulz, Head of the Heinrich Böll Foundation Mecklenburg-Vorpommern, one of the later tenants of the FRIEDA 23, on 4.11.2014.

[100] Crowdfunding is the practice of funding a project or by raising monetary contributions from a large number of people, usually via the internet.

[101] Schulz, Susan. Interview. Rostock, 4.11.2014.

[102] See interview with Dirk Jurkschat, Interview group 1: Member of the city administration of Rostock on 22.10.2014.

A concept for this was developed by the partners involved into the FRIEDA 23 project in 2014. Still, there seems to be some inconsistency in the strategic line, as a higher degree of exploitation of digital technology use would make the communication and cooperation processes more efficient. Accordingly, a saving of capacities compared to previous stages should be the outcome of this optimization instead of a need for more human resource capacities.

The closing part of the interview addressed the question of expected synergy effects and whether they were to be observed by the end of the project or not.

> *"In fact, synergy effects are the declared goal of this particular project. We pursue this goal with great commitment and motivation. There is an emphasis on two aspects: On the one hand there is a particular attention on the synergy effects between cultural institutions and on the other hand we want to create substantial added value for the society through innovative ideas and new offers."*[103]

These targets perfectly meet the expectations of representatives of interview group 2 interrogated in the course of the investigation. Still, the representatives of interview group 1 jointly stressed that synergy effects do not just appear whenever various Institutions merge together. Each partner has to actively contribute equally, including institutions, politicians, the public and consumers.

Expected positive developments and outcomes are a reduction of administrative expenditures, the reduction of overhead costs and a higher quality of cultural products offered through fusion of know-how and knowledge. Moreover, the involvement of new target groups, a more distinct customer-orientation through flexibility and an extended range of service are important positive synergy effects within the project FRIEDA 23. Concerns about a possible loss of image for one of the project partner after merging together has not occurred in any way. The cooperation of all institutions involved into the project after the active operation of the place was started in 2014 offer decisive advantages to them everyone for themselves would not have achieved.

5.1.6 Conclusion Case Study 1

Over ten years, the main focus was on the realization of the project idea FRIEDA 23, i.e. implementing the restoration process, most of the processes were assisted by digital technologies. In 2014, the next step was taken when the refurbishment was completed, all partners moved in and the media art centre FRIEDA 23 opened its doors. Now it was vital to focus on modern ways of communication and on providing of information through digital technologies and digital media on a new quality level. There is a growing awareness among the institutions that something needs to be done. The first analyses undertaken on the activities so far show that digital communication plays the main role in dialogue and exchange now. A collective digital public face of all members of the FRIEDA 23 together with the extension of existing digital communication strategies are under construction by now to support the extensive local cultural activities of the place implemented since autumn 2014.

Regarding the FRIEDA 23 restoration process investigated, it is, however, striking and exceptional, how in this particular case study, the common understanding of the impact of change on this physical space, was communicated to and supported by the public. The investigations have shown clearly, how it strengthened the relationship between administrators, citizens, civil society and the economic sector.

[103] Briese-Finke, Simone. Interview. Rostock, 20.10.2014 (Interview group 1).

Several communication forms used during the project can be recommended for similar projects in the future. Anne Kellner, representative of interview group 1, summarized the applied approach as follows:

> *"Exceptionally helpful have been social media offerings. Their usage is for the most part free of charge. They are helpful for advertising new ideas, new offers, cultural promotion and upcoming events. To have success in long term in a digital society like ours, it is impossible to circumvent digital public presence."*[104]

Anette Niemeyer, representative of a multiplier organization of interview group 2[105], indicated that digital technologies are considered by a majority of the involved players as an interesting tool for improving the communication between project partner, administration and public. Still, they all have the feeling that important decisions are not taken digitally. Directly addressing the target audience through analogue, face-to-face communication is still of major importance – which clearly corresponds with the main message of the place: meeting personally, experience that sharing a physical space is inspiring, beneficial and enables real-life community building much more that digital technology-based exchange. Interaction at human level ultimately has the greatest impact since it helps to make visible sympathy and antipathy that exists between people. At some point of a project it is inevitable for those responsible to be present and not just online available.

Evaluating the effect the project FRIEDA 23 had on the work with cultural heritage objects in general, it can be stated that it contributed significantly to establish participatory processes in Rostock. Which is now very visible in subsequent projects which are currently in their preparation stage: The construction project "Werftdreieck" is planned as a highly participatory process. . It is an area of about 10,000 m² which is currently developed as residential area on the territory of the former military airplane factory Heinkelwerke that had strong influence on the city's development in the 1930s and 1940s. Here, the stages of planning are regularly presented to the public and where the citizens of Rostock are regularly invited for public discussion of the plans. Similar methods are applied regarding the redevelopment of the Northern edge of Rostock's new market, one of the most important local places, where the former buildings were destroyed at the end of World War II. Already, a public discussion and a publicly monitored architectural contest took place, where the consideration of the public opinion was a strong factor. Here, digital technologies were used as dissemination (information) as well as exchange (feedback collection) tools all along the process.

[104] Kellner, Anne. Interview. Rostock, 23.10.2014.

[105] Interview with Anette Niemeyer, Chairwoman of the local advisory council of the city district Kröpeliner-Tor-Vorstadt in which the FRIEDA 23 is located, held in Rostock on 6 October 2014.

5.2 Case study 2: THE HAMAMONU CASE

5.2.1 History

There have been numerous legends about where the name of Ankara comes from. Ankara and its close regions have been named as Ankyra and Angora. It is not fully clear when Ankara became a settlement, but archaeological works around the region shows that a settlement existed here in Palaeolithic Age. Only later, since the 14th century, Ankara had had commercial functions as one of the Ahi centers. It remained one of the most important trade centers all over the growth period of Ottoman Empire and kept its importance as a major trade and production centre until the end of 19th century.

By the beginning of the 20th century, the city's situation deteriorated due to the effects of the war, the fall of the Ottoman Empire and a significant fire in 1917 that destroyed larger area. It regained importance when becoming the centre of the national struggle during the Independence War. In 1923, with the victory of the Independence War, the Turkish Nation declared The Republic of Turkey and Ankara (Altındağ) was declared the new capital on 13 October 1923.

Figure: Hamamönü District before and after the restoration

These days, the name of the district is Hamamönü - which derives from bath of Karacabey, a cultivation district that includes characteristic ottoman houses, mosques and caravanserais. The district is characterized by classic ottoman architecture from the eighteen century and by the architecture of the early Turkish Republic. One of Ankara's most famous sons, Mehmet Akif Ersoy, lived in Hamamönü and wrote the Turkish anthem there. Many other famous poets, writers, members of the parliament, commanders of the Turkish army lived in Hamamönü in the past. A lot of historical mosques, mansions, Turkish baths can be found there. Historical places like the house of Mehmet Akif Ersoy, the Taceddin Sultan Mosque, the Hacı Musa Mosque and the Karacabey Historical Bath are main elements of the cultural heritage presented in Hamamönü. Within the City of Ankara, Hamamönü is one element of a triangle, the other corners are The Castle and the Parliament Building.

5.2.2 Restoration scope and objectives

After the foundation of the Turkish Republic, Hamamönü lost most of its importance until, in the 1970s and 1980s, it was completely forgotten, with most of its buildings dilapidated. By the end of a three decade gentrification process, homeless people, addicts and criminals were the main citizens of the district as most of the other inhabitants had moved to other parts of the city. The glorious past of the place was almost forgotten.

The situation changed when Veysel Tiryaki became the mayor of Altindag municipality. The restoration of Hamamönü and Hamamarkası was among his top priorities. His intention was to demonstrate that where there is a desire, local projects can truly be achieved. His vision behind the restoration of Hamamönü was to revitalize the glorious past of the early Turkish Republic by turning Hamamönü into a place that people like to visit. After the restoration, Hamamönü was to become a centre of the city again, a touristic place, a pedestrian place without traffic, the culture and art centre of Ankara.

Before the street regulation and restoration works in Hamamönü got started, all electricity and telephone wires were removed. Gas, waste water and fresh water pipes were replaced. The streets were closed to vehicles, i.e. turned into pedestrian zones (only opened at some specific times of a day for services). All restoration, restitution and reconstruction works were implemented according to the Protection Law of Culture and Natural Properties No 2863 and the Regulations on Disaster, Fire and Earthquake in construction law No. 3194. Furthermore, the permit granted by the local authorities to build multilevel buildings in the area was to be reviewed: it was decided that no multilevel buildings were to be erected anymore in the area, to ensure that the historical character of the site was preserved.

The fact that the restoration of Incı and Dutluk street was completed within less than 4 months created high levels of motivation to continue the process accordingly. Immediately afterwards, 22 mansions were restored in only 5 months. By 2015, about 300 structures have been restored since the beginning of the construction works in 2006, which meant that most of the restoration works have been completed and the district, again, was in the process of becoming an area of interest for both local and tourists again.

During the process, with the value of the area increasing again, property owners started to show interest in the place – first investments were to be observed soon after the beginning of the process. Furthermore, investors restored other houses in the surrounding area, which added further value to the area.

However, restoring the place was only one issue. What was also needed to revitalize it was an urban transformation process that also included communicating the development to the local population and to tourists visiting Ankara. The central message was that Hamamönü was a place of rich history, revitalizing this past and being worth a visit again. Emotional bonds had to be created and related storytelling was to be implemented. Two main tools were implemented to achieve this:

1. Establishing Hamamönü as a place were many kinds of interesting cultural events took place, ranging from handicraft courses with the products being sold on a bazar in Hamamönü to annual movie festivals and breakfast events for up to 500 people. The overall idea was to present the area as an open cultural space and cultural heritage place.

2. Widely presenting Hamamönü as a cultural heritage place rich in cultural offers and historical atmosphere which was carried out mainly through digital media. In addition to the communication inside the location of Ankara, supra-regional and even international communication were scheduled to take place. One aim was to address international tourists already in their place of origin, the other to communicate the success story to the supporters from all over the world.

Although this sounds like a success story, the process was not implemented without opposition and criticism. One criticized issue was the fact how the restoration works were implemented:

> *"In all these implementations, except for face-lifting and/or refurbishment, tourism and trade focused function changes were applied, as buildings' base areas and inner walls were torn down in order to enlarge the rooms and, as such, the authentic spatial organization has been altered. On the façade, window norms and forms have been deteriorated and non-authentic façade elements (such as doorposts, fringes and frontals) have been added."*[106]

The other point that was critically reflected by observers of the process was the following:

> *"With reference to globalization in the years of 2000, the shared ideology of the preferences of capital and political authority can be explained as "participation in urban competition through real estate and cultural heritage which constitute the fundamental monetary fund of cities" in Turkey. For this reason, the conservation of immovable cultural heritage and urban regeneration and urban renewal, which have moved away from the goal of public benefit to urban value increase, are in contradiction. Within the conceptual meaning and purposes of urban conservation, regeneration and renewal, transformation and/or upgrading has been utilized as a negotiation tool in this unearned income-focused conflict, thereby disseminating destructive and alterative interventions in conservation areas. […] With reference to globalization in the years of 2000, the shared ideology of the preferences of capital and political authority can be explained as "participation in urban competition through real estate and cultural heritage which constitute the fundamental monetary fund of cities" in Turkey. For this reason, the conservation of immovable cultural heritage and urban regeneration and urban renewal, which have moved away from the goal of public benefit to urban value increase, are in contradiction. Within the conceptual meaning and purposes of urban conservation, regeneration and renewal, transformation and/or upgrading has been utilized as a negotiation tool in this unearned income - focused conflict, thereby disseminating destructive and alterative interventions in conservation areas."*[107]

[106] Nevin Gültekin. Urban Conservation Policy – the Case of Hamamönü, Ankara, Turkey. ERSA conference papers 2014, Page 6 (web reference: http://www-sre.wu.ac.at/ersa/ersaconfs/ersa14/e140826aFinal00651.pdf).

[107] Ibid, page 1 and 12.

5.2.3 The Interviews

Asked about the relevance of digitalization in relation to the project Hamamönü District, the interview partners, members of the municipality of Ankara, indicated that digital technologies were used for mostly advertising and the promotion of the project. Websites, social networks, TV broadcasts, digital press and mobile apps were used in the Hamamönü project. Websites were used for advertising and promotion, digital press and mobile apps were used for news, announcements. TV broadcasts were used for live coverage from festivals and special events.

Digital and non-digital press were used from the beginning of the project on and all over the project realization. The use of social media was started significantly later, i.e. only after the restoration was nearly finished, in 2010-2011. The aim of all digital technology use was to promote Hamamönü to wider audiences; both through communication via websites, as well as via social media, and in several languages. Panoramic images were presented to show the impressive character of the site to people from all over the world. The communication campaign based on digital media was a full success: the name "Hamamönü" is known worldwide today.

The interview stressed, that, in addition to the use of digital technologies for project promotion, digital media have been widely implemented as a project implementation tool. This was done by using social media tools, which allowed everybody interested in to get latest information on the project progress, commenting on it, but also getting access to the local authorities and receiving feedback from them. Still, very few people made use of this offer during the project implementation stage, the interest only increased after the first offers provided by the place were available and open to public.

At this stage, i.e. the start of the revitalization as place of culture and tourist attraction, wide promotion campaigns of the project created a public awareness on what was done in the district. Promotions and advertisements reached a wide audience, locally and at national level. TV broadcasts from festivals such as Ramadan got bigger support every year. Two years after the re-created district was opened to the public, the representatives of the administration of Ankara considered that it has turned into the most popular tourist area in Ankara, visited by many international guests, including politicians, diplomats and business people. In 2012, the project was awarded as EDEN (European Destinations of Excellence). Tour guides added the destination to the guide visit area. In addition to the visiting tourists and local citizens, there are regular visits from all Turkish political representatives which is considered as a good indicator for the high reputation of the place.

Asked about the use of GIS applications in the scope of the project, the interviewed administration representatives indicated that 360 panoramic website of Hamamönü is fully reflected. All environments are pinpointed with geographic identifications, although 3D images are not supported.

The second part of the interview aimed to find out how far the transformation of the physical place of the Hamamönü District was influenced by the relationship between the administration, public and the institutions themselves. The administration representative indicated that the restoration in Hamamönü was accomplished in a collaboration with several local authorities and institutions such Hacettepe University, Turkish Ministry of Culture and Tourism, Altındağ Municipality and Ankara Metropolitan Municipality. By involving this number of important local players into the project, a new quality was reached.

After the restoration, Hamamönü, to a wider extent became a place of communication between the administration and public. Those interviewed reported that a lot of interaction between tourists, local people, shop owners, authorities was to be observed, less by digital technologies but within the context of organizing and implementing festivals, art and literature meetings in Hamamönü. Still, it was stressed that digital technologies enabled a significant amount of public feedback. The municipality considered the comments and feedbacks received via social media and Web 2.0 and implemented several alignments out of it. It was one of the intended effects, the aims of using digital technologies in the project were:

- Announcing what have been done so far
- Becoming an area of interest again
- Accessing more and more people
- Retrieving more feedback from the public
- Establishing joint management with administrative and public institutions etc.

Summarizing, the administration member stressed that all these aims were accomplished throughout the project's duration. Looking back, the use of digital technologies could have been started at an even earlier stage. In this particular case, the use of most digital tools was only started after the restoration was finished. For the newer projects in Ankara region, this is not the case. Digital technologies are going to be used right from the beginning – which is definitely one of the lessons learned from the Hamamönü case. This it can be considered as one of the local pilot project regarding digital technology use for raising public awareness and ensure wide local acceptance. Integrating shop owners, hand crafts, art galleries etc. to the system is a must to be successful here. Digital tools should be used independent from the administration.

5.2.4 Conclusion Case Study 2

It can be said that after the restoration, the municipality started to use the full advantage of digital technologies. The restoration process itself was documented by films presented on website, TV, digital newspapers etc. Resulting from this, the Hamamönü restoration was well known to the public and supported by all political sides of the public.

Via these digital and non-digital promotion activities, local people were invited to live in the newly restored houses and sell their products in bazaars, thus, contributing to economy growth of the region. Later in the process, the public was informed about the completion of the restoration via digital media. Overall, the communication goal was to present Hamamönü as an area of interest to the city once again, to promote the art and culture activities, held discussions, live concerts, open theatres movies and hand craft products implemented there.

The municipality encouraged the public to take over and to perform their own business in Hamamönü. Digital tools were used here to promote what had been achieved and what was planned for the future; mostly via television broadcasts, interviews on TV and newspapers and via the website of Hamamönü, which was immediately online after the restoration. The use of social media such as Facebook, YouTube, Twitter was started in 2011.

In doing so, digital media contributed to building bridges between administration and citizens, but also allowed receipt of feedback, providing the right contacts, initiating collaborations and co-operations between public and the municipality. In an interview held with an artisan the message placed there is summarized as follows:

> *The restoration and the pedestrianization of Hamamönü definitely works for us, because the more people visit Hamamönü the more we gain. Our sales increased a lot. With wide promotion campaigns for Hamamönü, visitors witnessed the change, renewal. Full day coverage TV broadcasts in Ramadan showed the new look and encourage people to visit Hamamönü.*

All digital technology used in Hamamönü promoted the place to a wider audiences. Digital technologies were of particular importance here, as a worldwide public was the addressed target group and was to be reached only reached only via digital means. Promotional films in several languages, panoramic images and websites were successfully made available to people from the world. Thanks to digital technologies, the name Hamamönü has become known all over the world.

5.3 Conclusion

When comparing the project of FRIEDA 23 in Rostock and the reconstruction of the Hamamönü district in Ankara the first thing that is apparent is that both cultural heritage sites are related to places of culture and art and that this function and self-perception is the result of a re-creation process after a longer period of unsatisfactory operation. However, there are also important differences between both objects.

The restoration of the Hamamönü district was a state project. Structure, financing and the development of the project had been completely under governmental management. FRIEDA 23 was a public-private partnership, a contractually settled cooperation between local authorities and private sector companies, which had the main responsibility for the project.

Having a closer look at the degree of use of digital technology within the Hamamönü project, the administration of Ankara took full advantages of digital technologies. Major promotion and information campaigns translated into several languages, the use of websites, social networks and YouTube as well as mobile applications and GIS are only some examples.

Nevertheless, the use of social media happened only after the restoration of the district was done. The successful use of digital technologies for project promotion resulted in a fundamental insight: within following projects, digital tools should be used right from the beginning and managed independently from the administration.

In case of FRIEDA 23, the situation was somewhat different. Although social media and YouTube had already been in use during the project realization (although still, only at a later stage), it focused on local communication which is a logical consequence of the function of the site: becoming the local media and art centre, the breeding ground for future cultural projects of new quality. There was no translation of information into other languages and the promotion of the project was very local, compared to the promotion campaigns of the Hamamönü district in Ankara. Moreover it was mainly the private project partners that used the advantages of digital technologies. This is mainly related to the fact that during a project-planning phase of almost 10 years, the project FRIEDA 23 hardly got any financial support from the local administration. Instead, it had to rely on private project partners.

Still, even this deficit provides useful feedback: It made clear that administrations need to more focus on modern ways of communication and on providing information through digital technologies. Coordination, administrative issues and information sharing need to be improved via enhanced use of digital technologies. A logical consequence would be to develop instruments and guidance for local public administrations in managing public activities connected to cultural heritage. This would allow them to gain further knowledge about the potential of digital communication to influence, change and transform the relationship and the dialogue between local and public administrations and the public.

Finally, both case studies have shown that transforming physical places impacts on the relationship between administrators, citizen, civil society and the economic sector. In both cases, the impact was of positive nature for all parties involved. As described above, the development of these two projects happened under different conditions, but both digital communication, the use of social media and the use of websites supported dialogue and exchange related to the cultural heritage. There is still major potential for optimization and further development.

Generalizing, it can be said, that the aim of achieving a common understanding of the impact of changes in both cases, as well as the aim to enable the public to contribute interactively to the creation of new cultural heritage was clearly reached. "Forgotten places" became new areas of interest through the impact of change on physical places (with templates stabled for future interaction), people were engaged in the process and areas, through commerce and social interaction, have enhanced the lives of the local communities.

Chapter 6: The Context of Change for Performance Practice

This chapter maps the context of change in which performance-based cultural heritage is managed, instantiated, transmitted, distributed and received by audiences, with a particular focus on the role played by digital technologies, and the impacts associated with their use. It examines performance-based cultural heritage as a field of practice, distinguished and scoped from other arts and culture fields by the way its organisations, workforce, and resources are aggregated, interact and cooperate for the development and dissemination of a specific set of art forms. The art forms included are traditional and contemporary performing arts, defined broadly as the practice in which the artist uses a wide repertoire of bodily movements, speech, voice, acting, music, props and objects as a form of artistic expression directed to an audience.

This is distinguished from *performance art,* also variously termed *live art, art intervention* or *action art*, which has emerged and evolved as an antithetic form of expression to traditional theatre, and which promotes non-repeatable, spontaneous artistic expressions in a variety of locations and settings, although it is acknowledged that performance practice is continually evolving and often highly idiosyncratic so the boundaries between practices are porous. The types of performing arts on which this report focuses are thus broadly situated within the domains of dance, theatre, musical theatre, dance theatre and opera. All forms of dance are considered, including contemporary dance, classical dance, and dance with non-European roots or influences. Likewise, all forms of theatre are considered, both traditional and modern.

The European performance field mapped in this chapter has articulations that defy a precise geographical definition, insofar as its evolution is increasingly marked by collaborations and partnerships which move dynamically between local, regional, national and international dimensions at different stages in the development and communication of performing arts. At the same time, the study acknowledges that a range of legal, economic, and socio-political factors that operate at local level affect the evolution of the field in different ways in different geographical or geo-political areas. Therefore the study adopted a research strategy by which broad trends and DT impacts on performing arts are mapped at European level, and examples of how these trends and impacts are instantiated in specific European national contexts are given, focusing on two countries – Spain and the UK. This strategic choice has defined the methodological framework and data collection instrumentation. The European context was mapped through desk research and an online survey, while an empirical analysis by means of expert interviews has been conducted, with respondents located mainly in Spain and the UK. On this basis, the study identified Europe-wide trends, opportunities and challenges brought by the use and integration of DT for the performing arts field of practice, encompassing: performance management and organisation; jobs, employment and professional careers; the creative process and new forms of performance; documentation and preservation; and audience transactions and audience development.

The study confirms that digital technologies have a profound impact on the European performing arts scene, spanning all areas of practice examined: they give rise to new professional roles and pose demands for new skills, enable the creation of innovative art forms and open up new modalities for engaging audiences. At the same time, these impacts are spread unequally, conditioned not only by the availability of DT, but also by local socio-political and economic dynamics, as the country-based studies conducted in Spain and the UK suggest. The European performing arts ecology is very broad and diverse. The size of the sector and main actors, its social and economic value, and how its growth and development is conditioned and driven by European and local legal and policy frameworks, are all factors that shape performance practice and should be taken into account.

6.1. Methodology

The overarching goal of the study was to map the European context of change for performance practice, focusing in particular on changes incurred by the use of digital technologies (DT), and the space of opportunity and possibility these open. The design of the data generation instruments followed a centralising logic, to maximize the possibility to triangulate among multiple data sources in the analytical stage. A common **analytical framework** for mapping change was designed and constantly refined throughout the study, differentiating between 1) the performing arts ecology, 2) main drivers of change, and 3) impacts or dimensions of change.

The performing arts ecology captures the dynamics between the main actors, resources, and productions that make performance possible. The main focus of the investigation was on the impacts of DT on performing arts organisations and workforce. The analysis distinguishes between these by type of art form (e.g. theatre, dance), base business model (primarily subsidised vs. commercial), and area of professional activity. With respect to the latter, the following types of organisations and professionals are distinguished:

- *Performance agencies, companies and collectives*, defined as organisations that create, produce, perform, tour, communicate, disseminate, manage relationships with audiences, or provide venues for staging various forms of performance. This umbrella term includes a wide variety of companies and agencies that may be specialised only in production, touring, commissioning or providing venues for performance. These are distinguished for their mission in dealing with live performance.

- *Organisations and bodies whose primary mission is to research, archive, preserve and provide specialised training and education on performing arts*, which may be stand alone or departments in larger organisations. Examples are archives, performing arts museums, dance schools, dance, drama and performance departments in higher education institutions including the conservatoire, or in museums, archives and other memory institutions.

- *Strategic organisations and associations* that represent the interests of performance companies, often founded by initiative of field practitioners, for instance Dance UK and The National Dance Network in the UK, and Associació de Professionals de la Dansa de Catalunya (APdC) and Federación Estatal de Compañías y Empresas de Danza (FECED) in Spain.

- *Professionals, or the performance workforce,* can be primary creative personnel, technical workers, managers, owners and executives, researchers and educators (adapted from Burns and Harrison, 2009, with the addition of 'researchers').

- *Performing arts users and audiences,* defined as individuals and groups that interact with various forms of performance in physical or virtual settings, as traditional viewers or using technology-enabled interactive tools and platforms.

Each of the above can be active in the not for profit/subsidised as well as the for profit/commercial sector. The study does not cover non-professional and amateur dance, and while it considers audiences as part of the ecology, the investigation is concerned with analysing changes in the transactions between makers and audiences, rather than changes in audience profiles.

With respect to the *drivers of change*, particular attention has been given to digital technology as driver of change, but also to other factors – economic, social, political, and legal in particular. Impacts

have been elicited and categorised for providing a comprehensive view of the way different facets of the field of practice are affected. Impacts were therefore mapped on the following dimensions:

1. Performance management and organisation;
2. Jobs, employment and professional careers;
3. The creative process and new forms of performance;
4. Documentation and preservation; and
5. Audience transactions and audience development.

The study employed expert interviews, an online survey and desk research. The expert interviews were carried out by the task partners (Coventry University, in the UK and I2CAT, in Spain) following a common design and sampling strategy. Interviews were semi-structured and the questioning route was drafted following the analytical framework described above. Experts were sampled based on their expertise in performance practice, with a focus on the integration of digital technology. Overall 18 interviews were carried out with researchers and practitioners in the fields of dance, theatre and music and the broader performing arts sector, including:

- Dancers/performers
- Digital creators or producers
- Researchers
- Musicologists.

Interviewees come mainly from Spain and the UK, but also one interviewee from Greece, a researcher in dance and new media originally from Chile and working at present in France, and three having an international base for their work (predominantly from the UK and Canada, UK and Australia, and UK and Germany). (An outline of the expertise fields covered by the interviewees is provided in the annex to this document). With the exception of one UK-based interview provided in writing, all interviews were conducted orally either via teleconference systems or face to face, and were transcribed before being coded and analysed.

The survey was designed following the same analytical framework, and included 13 main questions using Likert scales, multiple choice, multiple answers and open questions. The survey administration followed a purposive sampling strategy, and targeted:

- Performance makers
- Researchers
- Educators
- Managers
- Promoters of performance events with a particular focus on new technologies in performance.

The survey has been administered online, and prospective respondents have been reached via a targeted campaign, drawing on the network of contacts of RICHES partners, and through relevant mailing lists (e.g. DANCEHE, DanceTech, Promoter Digital Cultures). The response rate (n=26) was too low to enable a quantitative analysis. Consequently, a qualitative examination of responses was performed, dwelling on the insights provided by individual responses, rather than their statistical analysis.

Desk research was run continuously, at the beginning of the study to inform the design of the instruments for primary data collection, and after to delve into and verify emerging themes. It covered reports and research papers analysing the performance field in Europe, with an emphasis on Spain and the UK. The main topics were informed by the analytical framework described above, and revolved around the use of technology in dance and performance, economic approaches to dance and performance practice as influenced by DT, and larger scope studies from a social and economic perspective looking at dance and performance in the context of cultural heritage and the creative economy.

6.2. Changing managerial and organisational practices

Digital technologies opened up new possibilities for performing arts companies and organisations to manage and run their operations, for instance:

- Automating processes such as ticket sales
- Cutting down costs for marketing, dissemination, recruitment, and keeping their communities informed, e.g. via newsletters
- Digital data management inside the organisation
- Supporting communication and collaboration for work

In the UK, the impact most cited by the experts interviewed was related to supporting distance-based collaboration at all stages in the creation, production and distribution of performance. Distance-based collaboration is facilitated by free or cheap tools for communication, file sharing, collaborative editing, etc. Easier distance-based collaboration is a great stimulus towards the internationalisation of performance practice, with activities drawing on the work of professionals located in different countries, and able to contribute to the development of joint work.

With respect to revenue generation, DTs have mixed impacts. On the one hand, DTs offer opportunities for revenue generation that were not possible, or done differently, before, such as online fundraising, crowd funding, online sales and the possibility to market new digital products and services. These new models helped companies and practitioners to boost their revenue making activities. For instance, in the UK, a 2013 survey by NESTA (National Endowment for Science Technology and the Arts) revealed that 31% of performing arts organisations reported that DT have a major impact on increasing revenues. However, DTs can also entail higher costs of production and staging. When using cutting-edge ICT, sometimes production costs for DT-focused performances can be much higher than with traditional performances. This is a significant hindrance for experimental performers without institutional support. As one Spanish interviewee remarked:

> *"(A)ccess to and training in new digital technologies is very difficult and expensive; if you don't count with a company or an university behind you it's very complicated."* (Creator and researcher in new media studies and interactivity, Spain).

Nevertheless, it is also being increasingly recognised, by both DT enthusiasts and sceptics, that certain deployments of DT can significantly cut down production costs (i.e. use of video walls for background scenery), thus working to the benefit of performing groups with more modest budgets. This reality is likely to be a significant factor in the adoption of cost-saving digital technologies across the whole spectrum of performing arts players.

Figure: 04_ANDROMEDA_estrena – Marcelli Antunez Roca – using interactive video wall scenery

A special case is represented by new business models supported by DT. Business models for the performing arts field can be categorized by fashioning established digital business models (e.g. Premium price/Freemium, pay per view/use, subscription, sponsorship/advertising supported, membership) on several areas of support for performing arts activities directed either at field professions or at audiences, for example:

- Gaming
- Learning
- Rehearsal
- Choreography
- Management
- Marketing
- Job finding
- Enhancing or increasing attendance of performance events.

Examples of business models for performing arts range from apps for performing arts education and software for choreography development or rehearsal to online streaming and live streaming. An interesting emerging experience that deserves further exploration is that of performing arts companies who create their own software and/or prototype infrastructure for a given performance, and then decide to publish it. Licensing fees, consulting, training sessions and updating/adaptation revenue can then play a role in the long-term financial sustainability of the company. Also, some performing arts companies (such as Oriol Broggi's *La Perla 29* in Spain) are experimenting with "spectator's associations", entities which bring dedicated members of the audience into the life of the performing arts company. This association, started in 2013, has now more than 200 members. By fostering direct contact with the audiences and asking for their support for specific plays, these approaches can play a role in financing the production of performances.

Some examples show that DT has the potential to afford a complete reconfiguration of the organisational ecology, making the best of technology in all areas of managerial, organisational, business and audience engagement and development opportunities. Companies such as *2b Acting* (UK) have built their entire organisational and business strategy on DT, offering products and services that range from a mobile app supporting rehearsal to services for producing selective interactive videos. Their innovative business model is paralleled by enthusiasm for experimenting with technology for producing new forms of theatre. The UK-based *Digital Theatre* is a thriving initiative that partners with theatre companies in the UK to offer high quality online viewings of theatre, dance and opera shows. The Digital Theatre team captures performances on high definition film, and then offers several options for online screening, through streaming, mobile apps, and downloads for offline viewing. Through *Digital Theatre Plus*, it also offers educators access to shows, insights from theatre practitioners and educational materials.

While new technology-supported organisational and business models are promising and have already benefitted a number of companies and practitioners, there are a series of issues associated with exploiting their full potential. Trying out new organisational forms and business models requires inventiveness, access to solid information, access to finance, and also involves a certain degree of financial risk, which can put off performing arts entrepreneurs or small companies. At the same time, investment in such models can bring benefits not only for the companies or artists involved, but also for cultivating innovation in the field. For example, the *Royal Opera House* in London has introduced several commercial services around live streaming and cinema streaming.

Some of these were successful (e.g. boosting international tickets sales), others less successful (e.g. low number of donations, and low though growing interest for the paid for digital programme guides for performances) (NESTA, 2014). This programme has been however a success in trying out an experimental business model, which can be bettered in future replications. This initiative has been made possible by an R&D programme by UK's NESTA in partnership with Arts Council England (ACE), Creative Scotland, and the Arts and Humanities Research Council (AHRC). Its performance was carefully monitored, so that the results could be made available for other organisations. Taking this as an example, investment in R&D for the arts is one of the three priority recommendations mentioned in a recent report by NESTA on encouraging new financial models for the arts in the UK (2014). Typically, subsidies for the arts encourage artistic innovation, however, the report argues, there is a need to invest as well in innovative business and operational models, something that can be encouraged by public funding programmes (NESTA, 2014).

Apart from access to finance, having access to reliable information can minimize some of the risks associated with trying out new organisational and business forms, and enable companies to take advantage of opportunities that would otherwise remain unknown. Some innovative models may be simple to implement with low investment of resources, yet requiring an in-depth knowledge of the field and the potential of DT. Some others, as exemplified by *2b Acting* and *Digital Theatre* in the UK, are more complex and require strategic thinking that can only be backed by solid knowledge of the possibilities offered by technology in relation to the position and requirements of one's own company. Providing rounded, reliable information on opportunities and disseminating lessons learnt from experiments is crucial. A correlative of the above is that engaging in new organisational and business ventures requires moreover a series of personal skills and competences and a strategic mindset that is best afforded by specialised entrepreneurship training.

This bespeaks the need for offering tailored training and mentoring programmes for performing arts practitioners, particularly for artists who are starting new companies or re-positioning their work to take advantage of digital opportunities.

6.3. New professional requirements and hybrid careers

DTs have had mixed impacts on employment, opening new possibilities, creating new demands for needed skills, and either creating new professional profiles or fundamentally affecting others. A series of overarching themes characterising the major impacts and nascent trends are listed below:

Creation of new roles

The adoption of DTs by performing arts organisations led to the creation of new roles, some technical, and others requiring technical skills in addition to sector-specific ones, opening up more jobs in existing professions (i.e. cameraman, sound technician, lights technician) and creating entirely new career paths (e.g., *mediator*, the person who knows exactly how interaction works in an installation and whose function is to help the audience to work with an installation; *performance software developer*, …).

Figure: 12_NUVOLFOSC(2)_estrena – Marcelli Antunez Roca – performance technicians

Emergence of hybrid professional profiles

The use of DTs in a context of increasing collaborations and flexible employment patterns gave rise to professional profiles characterized by hybrid role descriptors bridging different practices (e.g. performance and media) and/or positions (e.g. practitioner and researcher). Hybrid professional profiles are not only due to DT integration, and reflect an evolution of roles and activities as one progresses in one's career. For instance, in the online survey, a good number of respondents have indicated that their role has changed partially or fundamentally since they first started working in the field. These changes tend to reflect a transition towards multiple roles (e.g. researcher, educator and practitioner, choreographer as well as movement director) rather than migration from one specific role to the other, and require rapid skills update.

> *"I usually work as visual producer and as educator. This descriptor means that I must investigate the technical area and the theoretical area all the time. These two areas have a lot changed until now. The technical area changes all the time with the new technologies. The theoretical area changes all the time too."* (Survey respondent)

Increased opportunities for small businesses, enterprises and individuals

These resulted from making it easy to conduct marketing and dissemination with digital and online tools. Activities that in the past required a specialised position or outsourcing to a specialised company (e.g. marketing, creation of promotional materials), can now be done in-house even by small companies, or directly by individual practitioners managing their own promotion and dissemination.

Rise in self-employment

Particularly due to the emergence of business models that enable individuals to earn a revenue by exploiting their art, or giving rise to innovative ways of supporting art making.

Increased mobility and flexible employment patterns

In a context in which work can be done at a distance and job opportunities are more easily accessible through online portals.

Demand for DT and associated hybrid skills.

For artists, incorporating DT in their work does not only entail a process of technological learning, it also involves a process of revisiting their craft and trade. Artists who want to use DT in their professional life have to learn to perform in novel ways, to adjust to their new technical realities. For those experimenting with distributed performances, the inevitable delay in the transmission of data over the Internet means that musicians and dancers must learn to compensate this delay to keep their synchronisation. Also, distributed performances mean as well that musicians no longer "see" or "hear" each other face-to-face, they must rely on indirect, technologically-mediated means of communication to sustain their interaction.

These trends should be read in conjunction with the observation that technology is advancing and changing very fast, triggering advances in hardware, software and protocols, and creating a demand for skills that are always up to date.

Reading these results in conjunction with this observation, a few key **issues and needs** can be singled out:

Mismatch between demand created by education and the job market offer.

Taking the example of the UK, while there are an estimate of 750,000 students enrolled in sector-specific further and higher education, the active job roles amount to only 100,000, and most of these are already filled (Creative & Cultural Skills, 2010). In addition, while most students enrolled are for on stage positions (dancers, performers), actually the need manifested by employers is for administrative positions, and backstage jobs, which in turn require specific DT skills. While reliable statistics for the European context are not available, the example of the UK can indicate an important aspect to look into in future research, regarding the ratio between the education offer and the availability of performing arts jobs, as well as the mismatch between the types of roles mostly in

demand by students and currently offered by education institutions (on stage) and the actual market demand (backstage jobs). This relates as well to different types of technical skills necessary for different categories of roles.

The need for continuous professional development

This is particularly relevant in a context in which rapid technological change requires constant updating of skills. This is a critical point, as the rapid pace of technological change is only shallowly matched by the educational offer. The innovation of the educational offer most often comes not directly from the market, but through research. Yet just like education, research activities work at a much slower pace – for example, research funding often takes months to realise from initial idea development to awarding of funding and the technology may already be superseded. In conclusion, on the job training is important to keep employees' technical skills updated on the run. In the UK, staff training is taken up by many performing arts organisations, e.g. 45% of businesses offered staff training in 2008/9, yet only 11% have accessed public funding to support these costs (Creative & Cultural Skills, 2010. Note: figures represent performing arts sector inclusive of live music). Larger institutions may offer programs for DT skills improvement and update for employees, yet smaller companies may be unable to cover costs for on the job training for their employees.

The need for greater synergies between education and the industry in configuring the educational offer for future professionals.

Universities, where new generations of performing arts professionals are educated, are at the forefront of idea generation, but not necessarily keeping step with technological advances, consequently, the engagement with technology reflected in the educational offer often fails to match technological advances. While industry led research has a quick turnaround from concept stage to product development, it is a much slower process within the academic research environment, therefore making it difficult to be leading the field in technological developments within the academia. What higher education institutions can do is provide a critical engagement with DT and provide a fertile space in which students to test, experiment, critique and develop their own ideas. Researchers can develop collaborations with technology providers and artists to enrich the knowledge and impact associated with DT in performance. This equates with building upon a trend that is already in place in the UK. The development of Practice-as, or Practice-based, or Practice-led research is fairly well established in the UK higher education environment in which the artist-researcher is recognised as working at the interface of practice and research. This position is fairly unique to the UK. Higher Education in the rest of Europe is less well developed in this respect (theory and practice tend to be more firmly divided). So DT enters this sphere of practice-as-research as an opportunity for students to experiment and push the boundaries of what is possible as creative, exploring the underlying philosophical and conceptual issues, as well as how digitally enabled performance practice can have 'real world' applications. In the UK, in the recent past the collaboration between academia and practitioners became much richer and stronger, required in particular by projects experimenting with technology in the arts. This collaboration also incurred a dual focus on research and practice, so that the practice focus increased in the academia and the research/theory focus increased in the practitioners' arena. Collaborations of this type appear to be some of the most rewarding formats for cultivating creativity and innovative thinking, yet pose also a series of problems, from funding issues to time, which means that they are not accessible in all academic environments.

6.4. Innovation in the art form, the creative process and ownership issues

DT empowers artists and practitioners to have better control over and manage their work in all aspects, from creation to distribution and preservation. Yet the potential of DT is exploited unequally by performing artists. In particular, different integration of DT in the performance lifecycle occurs with distinct effects according to whether it is used:

1) as a tool at the level of documentation, communication, dissemination and

2) as part of the creative process, characterised by intervention in the nature of performance itself, its conception and its delivery towards an audience.

DT integration at the first level is adopted on a much larger scale than at the second level. Some organisations may make use of DT only for marketing and dissemination, for instance. In these cases, the art form is not affected, and traditional forms of performance continue to be marketed. Integration at the second level, in creating, for example, new forms of digital performance, affects fundamentally the nature of the creative process. This adoption is more reduced in scope, and presents in turn great variety of approaches. Finally, some companies/artists integrate technology at all stages, from creation to dissemination. (e.g *Blast Theory, 2b Acting* in the UK), and depict interesting cases in which the entire organisational ecosystem has been revised and re-centred upon the use of DT.

6.4.1. Innovation in the creative process

Digital technology enables new forms, models and methods for performance creation and making, with different impacts on artistic practice and audience engagement depending on the way it has been appropriated. One first aspect regards the *degree* to which DT is integrated in making art, which can go from merely adding technological overlays in the performance (e.g. a video projection) to radical new forms of performance in which DT changes fundamentally the art form and the modalities of engagement. In radical new approaches, DT can offer artists new ways of thinking about and conceiving their work and their work process, and becomes a means to question and re-envision their entire practice. New ways of thinking about movement, choreography and composition in media terms emerge (e.g. using algorithms in the composition process). Survey respondents voice a variety of approaches. For some, DTs are fundamental to the way they make art, and may change the artist's way of thinking through the art making process and conceiving art. For instance:

> *"I use technology as a new interface that stimulates corporeal potentiality. I approach technology as a physicality and work with it from the beginning of the process (from the beginning to the end).* (Survey respondent)

> *In some projects I work with GPS info and digital cartography. Digital technologies are fundamental to how I define my working practice. In other projects I work with digital photography and this area is completely new now. My work is about the effect of the digital revolution on the human body."* (Survey respondent)

For others, DTs are only tools for transmitting their work made in other, analogue, forms. However, it can be argued that all performances that integrate DT may require artists to re-envisage their art making processes. For example, as regards dance performances, use of widely available tools such as videoconferencing software also has novel implications, since it means that the traditional notions of

location and sense of direction are sometimes reversed. That is, depending on the camera layout required for the performance,

> *"from one side they will see that I'm going forward but from the other side they will see that I'm going backwards"* (Spanish researcher and expert in dance and new media).

Also, for distributed theatrical performances, the actors look at each other through the camera - not directly in the other's eyes.

Figure: Coventry University's Centre for Dance Research Screendance

Some of the UK-based experts interviewed argued that DT can be appropriated in the creative process in a rigorous, methodical and reflective way or by experimentations with technologies becoming available. In the opinions of the experts interviewed, both approaches are prone to give rise to innovative forms of performance. Yet the ones that really mark novelty and create new landmarks in the evolution of performing arts are the forms researched and experimented with in an engaging, reflective way, starting from a question or a concern put forth by the artist, rather than driven by the will to integrate a certain technology. These processes can be facilitated by tools or particular creative formats. In the dance domain, software tools that can aid choreographers in their creative process have been crafted from the 80s, even before the advent of the internet. They were typically created by artists with programing skills, in arts organisations who had an early concern with using technology to innovate creative processes (deLahunta, 2005). Some of these tools had a short lifespan and were used only experimentally, others provided inspiration for artists to continue to experiment and innovate them, while others, such as *Life Forms* (made by a USA-based research team with the contribution of the dancer and choreographer Merce Cunningham), and *Isadora* (a software tool that assists the creation of interactive performances, made by artist-programmer Mark Coniglio) were adopted by artists and continue to be used to this day. These tools are not neutral, they can influence the work and affect the way the creator is thinking about their own making practice. For instance, a UK-based dance researcher and practitioner says:

> *"In my current work I use Mark Coniglio's Isadora software, which allows me to play with pre-recorded, real-time images and movement all at the same time. Manipulating and exploring images and movement (in performance), through Isadora, has interestingly become a really implicit part of my choreographic practice."*

The same goes for music composition. For example, Francesc Cortès' research (Spain) has uncovered new patterns in the creation of orchestral works: many young composers do not create music as their forefathers did, with pen on paper, but instead orchestrate with specific software and then share the software creations themselves.

Different degrees of technology integration in performance making also require different degrees of expertise. Truly ground-breaking work, which pushes the limits of digital technology and imagines new ways of blending it in original forms of performance, have been typically advanced in scenarios where a deep knowledge of the art form was complemented by a knowledge of technology potentials and intricacies of working with it. This complex expertise can be afforded by artists with technical and programming skills, or by multi-disciplinary teams in which varying sets of skills and expertise - art- and technology-focused - are offered by different professionals. The UK-based experts interviewed expressed different views with respect to the potential of single artists, or multi-disciplinary teams, to create innovative forms of performance. Some argued that for technology-enhanced innovation in the arts, the artist needs to step in the technical field and garner enough knowledge and skills to enable her/him to come up with ideas that make the most of technology potential to push the creative boundaries afforded by the art form. Yet, some other experts argued that the most rewarding formats for creating new work is based on collaborations between artists and professionals with a technical background (programmers, computer scientists) in workshops or longer-term projects. This joint work canvas generates a space of creative possibility that harnesses technological knowledge and artistic sensibility, giving rise to truly innovative forms of performance. For example, a researcher and expert in dance and technology based in Germany argues:

> *"I think, based on many years of experience, that (..) a sculptor, a painter (..), what makes that person special is because they find themselves excited by a kind of material. And they find that they can really do something special with it, and that's what makes them unique. And for me, these creative coders, they find their material is the code. (..) And it's their material, just like the dancers, their material is the body. (..) (T)here's another philosophy that code is like a language, it's like words. But I think code is like material. It's like clay. And I'm interested in bringing people together who work with code as clay with people who work with the body as clay. And then you see what comes from that meeting point."*

Illustrating this approach to innovative creative formats, several initiatives, projects, and workshops have been organised in different European countries in the past three decades, in which performing arts practitioners have worked together with coders and programmers, computer graphics experts or with artists from other disciplines, such as visual arts. There are no recipes for what sets of expertise to bring in such collaborations. The project *Software for Dancers* (London, 2001) brought together four choreographers and four digital artists with programming skills to generate ideas and concepts for rehearsal tools that could aid in the choreography creation process. More recently, the *Choreographic Coding Labs*, initiated in Frankfurt (2013) and now toured internationally bring together creative coders with an interest in movement and choreography, who can work with dance and movement material to share perspectives, generate new ideas, come up with new concepts or advance their work on tools that can facilitate or be integrated in different points of the art making and staging lifecycle.

Collaborative formats also address one of the most important drawbacks in spurring artistic innovation: the difficulty artists experience to keep step with rapid technological advances and be updated with the creative opportunities these offer. Yet, supporting these encounters is resource and time consuming. Moreover, short term collaborations typically result in the generation of concepts, or early prototypes at the most. Enduring collaboration is required to move from initial concept generation stages to making and staging new works, or marketing new products and tools.

6.4.2. Innovation in the art form

The last two decades in particular saw the emergence of *new forms of performance,* whether theatre (head-phone theatre, installation theatre, digital theatre, Internet theatre) or dance and body-based performance (Wearables for performance, telematics, networked performance, screendance). Hybridity is a defining feature of DT-enabled performances. Hybridity is expressed in the interplay of digital technology and the performing arts, but also of theory and practice, of academia and performing arts companies. Technology can thus act as a common language that overcomes borders between different disciplines, avoiding the potential clash of mindsets between engineering cultures and humanistic cultures.

With digital technologies, new possibilities are opened in the performing arts for integration of speech, movement and sound. To name just a few instances, in the “Forest of microphones” experience, Carles Sora (Spain) designed a sound space with microphones hanging at different heights, which could enrich a theatre play or text with sound. In another project, the same practitioner explored the concept of an interactive magic show, in which DT was deployed to create a series of technologically-enabled effects in each trick.

However, experts believe that usage of technology should follow a narrative need, without forcing technology in a performance just for technology’s sake. Excessive usage of DT without a narrative need can actually hinder the audience's experience of the work of art, by "clotting" the scene with digital elements (sound, text, video, etc.) which interfere with an audience’s appreciation of the story being told. For this reason, some of the more-traditionally-minded practitioners remain unconvinced that most current virtual forms of performance create the same kinaesthetic engagement as with traditional forms of performance.

The cost of technology-enhanced performances remains one of the most stringent problems. Arguably, cheap and widely available technology such as video can be used in innovative ways to create engaging performances. However, technology such as motion capture, which allows the 3D representation of movement in digital format, asks for space, technology and human resources that are afforded with difficulty. Unequal appropriation of technology in the arts is therefore visible in relation to the financial possibilities of individual companies, but also in national contexts. For example, a performing arts expert in Greece argues:

> *“In Greece we don't have digital theatre. Everything that I described is imported, it is not working here. There are very few artists that can work with digital technologies. I have in my mind one music group, one choreographer for example, but we do not have the tools, we don't have the laboratories and now with the crisis we don't have at all money anyway. One, we don't have money to pay for the set, or the costumes, or the salaries of the artists or the actors. [Technology] is something that comes as an additional value, and nobody is looking at that.”*

6.4.3. Ownership issues and IP implications

The study looked at issues as well as opportunities associated with IPR and use of DTs. One issue regards the *ownership* of new creations developed in collaboration. The solution chosen by many creative practitioners in these cases is to agree on shared IP. Some of the experts interviewed mentioned that different conditions may be stipulated in the contract, depending to the contribution of partners to the creative output. Yet in general the precise contribution of each individual, in particular in large collaborative projects, is almost impossible to assess. For example in creative projects that involve collaborations between artists and designers, it is not possible to distinguish between the scope of contribution of the artist and the one of the technologist. In these cases, declaring joint ownership is an easy solution if no revenues are generated from the exploitation of copyright. Yet matters are not so easily settled when a current collaboration may give significant inputs for one of the parties in developing future commercial work. As IPR are only awarded for expressions, products and not for ideas, this spill over of creativity is difficult to regulate.

Similar challenges are raised by collaborative creative processes in which the technical profiles play a decisive role, such as cases when engineers create mechanical prototypes, developers craft dedicated pieces of software, or light technicians programme elaborate displays which are an integral part of the performance. In these instances, technicians are increasingly seeking to be credited with IPR. This is particularly critical when the outputs of the creative process end up generating revenue, a point which may not have been expected at the beginning of the creative partnership. Thus, in performing arts projects which rely heavily on the involvement of technical profiles for the definition of important elements of the artistic concept (i.e. prototypes, software etc.), it is increasingly important to clarify from the start which is the status of these technical stakeholders as regards the creative outputs of the project. Depending on their role, three options are feasible, each reflecting a rising level of creative ownership. First, whenever their role in the creative process is minimal, they can be regarded as technical subcontractors on a fixed fee. Second, if their contributions have a significant impact in the shape of the creative concept, they can be credited with a negotiated percentage of the IPRs. Or third, if their involvement is essential to the character of the created performance, they can be credited as full creative partners with equal rights to the created work.

A second issue regards the use of *copyrighted cultural content* for purposes including research, education, enhancing access through archiving, and reuse in new creative works. There is concern that too restrictive IPR frameworks can hinder the growth of innovative forms of performing arts, by making the reuse of elements of other contemporary artists too difficult and/or costly, thus making experimentation impossible. One Spanish theatre actor and director elaborated on this issue:

> *"The IPR were born to credit and sustain the artists –which is logical, and I respect the law reinforcing that– but I perceive that [in Spain] the Intellectual Property Rights have become a business for third parties. Sometimes I feel there is too much protection. I mean, in the old times, artists would gather together in a coffee and they would steal their ideas from one another […] that's what makes art evolve… Since the digital age and the politicization of everything it's becoming more and more difficult to practice these kind of things."*

Copyright exceptions, granting access to copyrighted content under certain conditions, are regulated by the EU law for fixed categories such as education, research, criticism and archiving. These regulations are adapted in national contexts in different ways, with varying success.

For example, in an IP review commissioned by the UK government in 2010, the UK adaptation and enforcement of these exceptions were found to be limited, in particular for archiving (Hargreaves, 2011). For UK-based performing arts practitioners, one of the most restrictive issues regards the reuse of copyrighted content in new artistic creations. For instance, artists that use historical material may be granted the rights to do so in their studio, but will not be able to publish online or disseminate that material without copyright infringement.

6.5. New models, tools and approaches for documentation and preservation

With respect to *preservation approaches*, most revolve around the use of video technology. Novelty in devising preservation approaches is not necessarily related to using innovative technology, but is rather steered by a different way of thinking about the purpose of preservation, and what exactly is preserved. Two approaches or trends have been distinguished. First, thinking of preservation not as a means to preserve the final artwork, but a window onto the creative process beyond the performance act. In this optic, new and old technology (e.g. writing) can be employed creatively to cover, for instance, interviews with artists and audiences, stages in the creative process, etc. Second, one of the most prominent effects of using DT is on blurring the lines between documentation, preservation and dissemination processes. These activities are increasingly interlinked by using video technology and re-purposing video content for different goals (e.g. publishing rehearsal material on YouTube, or archiving dissemination material). For example, *Rekall*, a French open source project led by Clarisse Bardiot aims to create an integrated interactive performance preservation and documentation tool integrating audio, video, sensor data, audience reactions, etc.

One example of best practice in dance archiving is *Siobhan Davies RePlay* (UK). It is the first in the UK, and one of very few worldwide. It was a collaboration between the artist (Siobhan Davies) and researchers, therefore it was a creative act, concerned with the curatorial process of collecting, organising and visualising the many layers and stages of the dance making process. It was designed to invite further creative responses, including from Davies herself as seen, for example, in *Table of Contents* (2014).

However, despite the fact that new experiences in digital preservation of performances hold great promise, there is still a very real risk of a limiting of possibilities, a *"reduction of senses"* (as one of the Spanish experts in dance and technology aptly put it) related to the use of digital technologies. For instance, as the space covered by the video camera is limited to lens surface, everything outside it is excluded from the performance. This is a serious challenge for street theatre, distributed performances, and performances which rely heavily of the involvement of audiences to create meaning.

Technology-centred preservation approaches also pose limits and raise *issues*, in particular:

- Issues associated with the technology used. These go from limited storage capacities, fast evolution of storage formats and incompatibility between old and new formats, and limited formats for access and reuse.
- Financial issues, in particular for online preservation, which raises costs for online storage and streaming.
- The difficulty of capturing the intricacy of the performance event. Certain forms of performance (e.g. headphone theatre, street and site-specific performance, distributed

performance) pose specific challenges for preservation, due to the difficulty of capturing relevant aspects of the performance process and audience involvement.

Particularly, these transformations pose novel challenges in the documentation and preservation of these distributed performances. How should the distributed performance be preserved? If the performance footage is edited, critics say, isn't this a new work of art, rather than a faithful representation of the original? Should we then explore innovative ways of preserving the performance, such as multi-camera views than include audience interaction, social media streams, and others?

Some of the experts interviewed questioned the very logic of preserving, holding that the very nature of performance is its impermanence, so is antithetical to the idea of archiving. This escalates in approaches for preserving everything, which can overcome practitioners, researchers, but also users and audiences, when they are presented with incredibly large offers of digital content.

> *"(T)he more data you now store, the more your data mass increases, the more will become impossible for the audience to make any intelligent choice, because there is too much data."* (Researcher and practitioner, digital performance, UK)

Figure: Performance of traditional Russian dance

6.6. Audience transactions and audience development

Changes in audience transactions and audience engagement

The use of technology for audience engagement is one of the aspects most studied and experimented with. In this report, the most important trends characterizing new forms of audience engagement have been singled out.

New types of audiences.

Digital technologies challenge the very concept of audience. With the advent of the high-speed Internet and video streaming technologies, some practitioners propose that the notion of audience has to be redefined to include YouTube and online streaming watchers.

New types of audiences are engendered by the online medium, for example the streaming of performances in real time enables niche art genres to reach a global audience. This leads to better cost-effectiveness of the performances and an increased financial sustainability, as opera singer and teacher Patricia Caicedo (Spain) has been proving during the last decade. However, all audience definitions and features are bound to be limited, as the new concept of audience is characterised by uneven, even opposite features.

> *"I think the audiences will be more active, paradoxically, active and inactive. Why? Because they will be active from their homes in pyjamas. You see? This worries me in a way, as this will be a kind of action that will not include the social relationship in person. Probably like the big Social Networks, international, global without human contact."* (Performer and artist, Spain)

There is an increasing interest in cultivating participatory approaches, which can go from active audiences in interactive performances, to audiences as cultural producers.

> *"Maybe the art that we are working on now is moving a bit more towards how to engage the audience in a way seeing themselves as cultural producers rather than go to the theatre, to the opera and have someone who says something."* (Researcher and practitioner, digital performance, UK)

The idea of active audiences is not something entirely new, and certainly not limited to digital performances. Yet DT enable innovative approaches for audience engagement, at times building on old forms (e.g. Q&A with the artist, post-performance) and in other cases completely shifting the concept of audience itself. For example, a project funded by UK's NESTA, ACE and AHRC, 'Respond' (http://www.respondto.org/) involves the online audience in the creation of the dance: audiences can view rehearsal material, listen to the choreographer speak about the concept behind the piece, and comment on that. The team then integrates these comments in the final development of the piece. Yet, the possibilities for audience engagement as producers, some of the experts interviewed argue, go beyond the online medium, and are best actuated by offering space for more proactive audience participation in the creation of performance events that link to community-based practices. Similarly, the boundaries between creator and spectator are eroded when DT-enabled interactivity brings audiences into the stage. Marcellí Antúnez's 2008 *Protomembrana*'s performance (Spain) is illustrative of this phenomenon: in this piece, there is a moment when 8 people are invited to work with the performer on the scene, becoming part of the show during those moments.

Interestingly, however, despite the huge professional concern around interactivity, theatre audiences may have more traditional tastes. In the UK, 67% prefer to be spectators, rather than participants, and 29% of theatre goers believe interactive theatre is difficult to follow. Interest in interactive theatre is higher for people aged 25-34, with 51% of this age group believing interactivity is great (LiveAnalytics, 2013).

New means, platforms and tools for audience engagement.

As regards the usage of digital technologies in performance practice, two layers or degrees of usage can be tentatively defined that engender different modes of audience engagement. The first is DT usage around the performance, in communication, dissemination, and marketing, without altering fundamentally the nature of the performance. The second is usage within the performance, which alters fundamentally the nature of the performance. Of these two layers of DT usage in performance practice, the first is more widespread and presents lesser challenges for the performers.

On the first, less challenging level of usage, digital technologies can empower audiences, enabling an adaptation of venues and performances to audiences (for example, offering the possibility to vote which shows they want to have in the venue at the beginning of the season, as recently done in the 2013 season of Barcelona's *Mercat de les Flors*).

Within the second, more creatively demanding degree of usage of DT, it can be hypothesised that the space of interaction mediated by digital technology has two sub-modalities. The first is direct participation in the scene. This can be done by using audience's smartphones to create light effects or "democratically" direct elements of the performance (as in *La Fura dels Baus* 2012's *M.U.R.S.* - Spain), or even inviting audience members to operate parts of machinery on stage, as seen for instance in several of Marcel·lí Antúnez's performances (1994's *Epizoo* or 2012's *Pseudo*). The second is online participation through digital networks, for example by using the social networks that audiences already use in their daily life to enrich the story, for example with Twitter streams.

At both layers, digital technologies can be employed before, during and/or after the performance. As one of the Spanish interviewees, expert in interactive communication, explains:

> *"Some plays, for instance, use the concept of transmedia, plays that not only refer to the physical act of the show where audiences and actors meet, but also they expand this interaction before and after the show. […] Or, some [other] companies, for instance, upload on the Internet some videos showing the actors explaining things related with the play [to be seen after the play]. "*

Figure: 05_BALLBORRATXO_estrena– Marcelli Antunez Roca

Affecting audience transactions.

One of the questions asked by this study was whether the quality of the transaction between the makers and the audience is fundamentally different due to using DTs. The experts interviewed had mixed views. Some believed that DT enables new ways of audience engagement before, during and after the show (e.g. through social media), without affecting fundamentally the quality of the transaction with the artists/performers already present in traditional forms.

Therefore, DT-enabled engagement is *not radically new*, but affords new ways of doing what was done before in face to face forms (e.g. artist discussions with the audience).

> *"The principle of the exchange between work and spectator remains but technologies mediate and shape the exchange as they have always done. Digital is merely a further manifestation of the principle and exchange."* (Survey respondent)

One aspect to consider is that social media and other technology-enabled ways to accommodate audience involvement and feedback need to be used cautiously as they may take away from the quality of the present-tense interaction with the performance. In a second optic, particular technologies and forms of performance offer fundamentally different ways of interacting with the audience, in which the audience is more involved, active, responsive, can provide feedback (e.g. telematics, interactive performance). These forms are *radically new* insofar as they differ from the traditional relation performer-audience as staged in traditional theatre-like environments and compel us to redefine the concept of 'audience'.

New spaces of engagement.

Performance spaces are closely entangled with and conditioned by the type of transaction between performers and the audience. For example, theatre-like settings present clues with respect to the type of activities and exchanges that are possible between performers and the audiences. Novel spaces, such as the online medium emerges as a novel space of performance practice, with its own rules and different from traditional spaces. The definition and understanding of new performance spaces is therefore an imperative, and closely related with the definition of new types of audiences, or the changing rules of the transactions that are afforded in DT-enhanced scenarios. One noticeable trend is represented by the proliferation of hybrid cultural spaces. Hybridity may be defined by blending live and digitally mediated exchanges and elements (e.g. a performance integrating augmented reality elements afforded by using tablets), but also goes beyond the mere use of DT. Even before the advent of DT, performances have been staged in hybrid cultural spaces such as historical sites and buildings. This trend is now expanding, with technology being used to transform interaction in these spaces, so that it comes to differ fundamentally from audience transactions in traditional theatre-like environments. These initiatives also raise challenges. Many museums and theatres are still built with traditional performances in mind, not thinking about the requirements of future digital performances. A prime example is Barcelona's MACBA (Museum of Contemporary Arts in Barcelona), which is a museum built primarily for paintings, not for new media works and performances: this entails that production companies have to improvise ways to cover the big window pane walls, when their shows include projections or sophisticated lighting.

Audience education. Availability of performance documentation in accessible online formats has the potential to add educational layers to dissemination activities. This is a space where audience outreach and engagement are blurred into informal learning practices, and offers some of the most promising developments for performing arts.

Projects such as William Forsythe's *Synchronous Objects* provide glimpses from choreographic practice principles and the process of making the work, so that the audiences are enabled to better understand and reflect upon the performances they view.

Audience outreach, communication and dissemination

The most widely spread integration of DT happens at the level of communication and dissemination. DT afford new, fast and cheap ways of reaching and engaging audiences via online and social media in particular. Online media do not provide, however, only a channel for communication and audience reach. They have inspired many practitioners and organisations to change the nature of the messages communicated, and the type of content delivered. One significant trend sees performing arts practitioners offer rich glimpses and insights into the artistic making process, documentation and context information that can be accessed before, during or after the event.

- Social media list among the most widely used and effective tools for audience reach, and also offer additional possibilities, in particular:
- Linking audience reach with audience engagement, by sustaining active conversations over the online medium.
- Turning audiences into promoters, by encouraging reuse and re-posting of content and news
- Evaluating the image of the company, by monitoring social media comments
- Seeking feedback on performance and satisfaction, allowing companies or practitioners to constantly improve

Almost a quarter of theatre attendees in a recent survey in the UK (LiveAnalytics, 2013) have reported tweeting about the event, and the figure reaches 47% for those aged 16 to 19. Yet same survey reports that social media only account for 3% of the sources for information dissemination about theatre events. Social media is more likely to be used for writing reviews: one in 5 write reviews about plays seen, and 17% of these write on a regular basis using social media.

6.7. Trends and opportunities opened up by digital technology: An overview

Significant achievements in DT integration have been made in all areas of performance including new forms of performance, new means of preservation and archiving, and new ways of audience engagement. At the same time, these achievements tend to be unequally spread across European countries, as well as within national contexts. The most progressive approaches and models are often fraught with risks or require specialist knowledge, and are therefore typically embraced by a limited number of innovators. Yet the trends singled out by the study are indicating definite directions of growth and development for the performing arts field. Some of these directions come out strongly and are likely to accentuate in time, while others are still incipient, though promising, and their evolution depends on a series of factors going from local socio-economic dynamics to state and regional policies.

Looking at the performing arts field broader landscape, two over-arching trends encompassing several practice areas (from management to art making processes) have been identified:

1. Increased hybridity in art forms, professional profiles and cultural spaces.

This asks for re-considering perspectives, approaches and methods in making art, performing and advancing a career as a performing arts professional, or managing performance spaces. Hybrid professional profiles are not only due to DT integration, and reflect an evolution of roles and activities as one progresses in one's career.

Hybrid cultural spaces, moving away from traditional theatre-like performances present new opportunities and ways for audience engagement. At the same time, the availability of these spaces does not match the creative requirements of performance artists, so that new ideas for technology integration and audience engagement may have to be scaled down and adapted when having to stage performances in traditional settings.

2. An increased interest in inter-disciplinary, cross-sectorial and trans-national collaborations.

This drive is more pronounced in the UK, especially since it is encouraged by funding schemes and policies. In Spain, the situation is different, as traditional performances rather than experimental digital performances are encouraged. Interdisciplinarity, especially involving artists and technologists, is fundamental for encouraging lateral thinking, trying out new ideas, and appropriating technology advances in novel creative formats, and can therefore be a significant driver of innovation. Yet, these types of collaborations tend to be time consuming, expensive, and difficult to sustain. Innovative formats emerge that may replace project-based interdisciplinary work models.

These two over-arching trends reverberate with mixed effects in specific areas of the performing arts ecology. For the area of **performance management and organisation**, some companies have benefitted from using DT to manage their internal workflows, disseminating their events, and selling tickets or asking for donations online. New digital business models have been tried out, some of these very successful (e.g. live streaming, apps for dance lessons, or for performers' professional support). Yet, the potential of DT for supporting new organisational forms and business models is hindered by a series of elements, among which: lack of access to finance and lack of reliable, solid knowledge especially in the peripheral areas outside creative centres such as London, Madrid, and Barcelona.

The effects of DT on **jobs, employment and careers** are positive, insofar as new job profiles are being created, but may also be associated with challenges. Rapid advancement of technology means that education can no longer prepare students with a skillset they can employ throughout their entire professional career. This should be read in a context marked by increased competitiveness for jobs. One way to respond to this need is afforded by educational models that cherish stronger synergies between the industry and the academia. Universities that partner with the industry and offer students occasions for engagement and experimentation with the newest technologies can enable them to acquire a more relevant set of skills, and the mindset for continuing to learn and experiment throughout their professional life. A second possibility is afforded by on-the-job training for skills update and continuous professional development. While some companies afford and offer it, others, and especially the small ones and independent practitioners, are at times unable to cover the costs.

With respect to the **creative process**, innovation is demonstrated in various approaches to art making, from the use of choreographic software, to collaborative and interdisciplinary contexts for art making. Some of the experts interviewed believe that innovation is likely to come primarily through collaborations between artists and programmers. For performance practitioners, researchers and artists to do ground-breaking work with DT, there is a need to be exposed to latest advancements in technology and get a sense of the realm of open possibilities. To this end, there is a need to encourage interdisciplinary collaborations between performance practitioners and computer scientists or programmers in experimental settings, which cover a creative, but also an educational role for parties involved, who need to learn and familiarize with the vocabulary and possibilities of the other field.

Digital artworks or works produced in collaboration also raise new sets of concern with respect to **ownership and IP**. The issues revealed by this research regard in particular:

- The need to regulate the rights in collaborative work, where more people bring different yet important contributions to making art (e.g. from new software to light and sound)
- The limitations posed to artists who want to reuse copyright protected digital content out of their studios, in published works.

DT brings significant new opportunities but also challenges and issues for performance **documentation and preservation.** Most challenges are raised by preservation. While video technology marked a landmark in devising preservation approaches, it is also associated with limitations, ranging from limitations associated with the technology (changing formats and standards, storage space) to limitations raised by the art form (e.g. the difficulty of capturing certain kinds of performances).

Significant advances have been made with **marketing, dissemination and audience outreach**, especially since affordable solutions could be conceived also by small companies. One trend enabled by DT integration regards the reuse and repurposing of documentation materials for both dissemination and preservation.

Audience transactions are marked by new audience types defined not only by the medium (e.g. online audiences) but also by new modalities of engagement and participation. One trend relates to the integration of arts education elements in audience communications, especially through the online medium.

6.8. Conclusion

This chapter presented findings from a study that investigated the European context of change for performance-based cultural heritage. Based on expert interviews, an online survey and desk research, the study identified impacts, opportunities and challenges associated with integrating digital technology in performance-based CH. One of the key messages in this chapter is that digital technology affects the evolution of the performing arts field in a significant way, yet its impacts are multi-faceted and unequally spread, absorbed differently and with varying effects in different local, regional and national contexts.

To give an overview of tendencies irrespective of their scope of adoption, the study has argued that attention should be paid to two trends encompassing several areas of the performing arts field of practice: Firstly, *the increased hybridity in art forms, professional profiles and cultural spaces* motions us to re-think and re-configure our perspectives and approaches in all areas of performance practice, from creative processes to the spaces in which performances are staged and the issues raised with hybrid professional profiles and flexible, evolving and multi-acted careers. Second, the evolution of performing arts is increasingly marked by *inter-disciplinary, cross-sectorial and trans-national collaborations,* facilitated and driven by the use and integration of technology at several stages in the process of making, staging, delivering, disseminating, or preserving arts.

Noteworthy advancements have been made, moreover, in all areas that mark the creation, staging, communication and preservation of performing arts. These range from new, digitally-enhanced forms of performance to new ways of communicating and marketing performances (e.g. through social media) and new audience profiles and means of audience engagement.

Virtual audiences that attend digital dance and theatre online, active audiences that contribute with their feedback in the staging of performances, co-creative audiences that help to shape performances – are all new categories that challenge and question old ways of thinking about performing arts audiences as exclusively passive and receptive.

These trends mark new avenues for innovation creation and adoption in the performing arts, yet their routes and their effects are unequally spread and scaled. While significant innovative thinking, approaches, and achievements are visible in all areas of performance practice, from art making to audience development, they are still limited to a few cases, creative hubs (such as London) or successful professionals. The challenge is to understand how incipient trends can be motioned into more rapid and wider embrace, particularly in peripheral areas and by small companies and struggling professionals. Networking, support organisations, provision of reliable information, incentives through funding schemes, appear to be paramount to making this step.

These trends also open up questions and mark new avenues in the evolution of performance-based cultural heritage. A first aspect regards the interplay of past and present in the creation of new forms of performance. The study showed that DTs are instrumental to providing larger access to archival performance material. This is a significant achievement in terms of access provision to European heritage. It is, moreover, opening up opportunities for performance practitioners to draw inspiration from and integrate content in new creative forms. This implies that boundaries between old and new, past and present forms of performance are blurring, as performance-based cultural heritage is making its way in contemporary creations. Several actions can be taken to encourage this trend, with particular emphasis on more lenient IP regulations for creative reuse of cultural content.

A second aspect is incurred by the increased hybridity in art forms and cultural spaces. New, digitally-enhanced performances may blend elements of visual and media arts. They may be staged, moreover, not in traditional theatres but in museums, city plazas, and re-purposed old architectural structures. These emerging initiatives challenge some of the established boundaries between art disciplines, and may ask for new ways to be categorised and studied.

Thirdly, by facilitating trans-national collaborations at all stages in the making of performances or their archiving and preservation, digital technologies also contribute to the emergence of performances or systems for their communication and preservation that can no longer be confined to national boundaries.

Historically, the evolution of performing arts has always defied community and national boundaries, as performance forms evolved, influenced or underwent the influence of genres and styles from different cultural spaces. At present, cross-national influences are happening at accelerating rates. While scholars and experts are able to trace back the influences and pinpoint specific geographical and cultural origins, some performance forms are likely to grow more and more into instances of 'world culture'. Coupled with increased opportunities for accessing digital performances or digital renditions of performances from varied European and world locations, this trend contributes to creating a new basis for looking at performances as manifestations of a varied, diverse and rich European and world culture and cultural heritage.

At the same time, the report points as well to the limits associated with the use and integration of digital technologies, particularly with respect to digital preservation. Most approaches to archiving and preservation assume a fairly traditional model of performance being recorded and digitised, hence 'preserved' and then made available for future generations. Unquestionably, in these cases DTs are valuable for providing the means to document and store digital or digitised performances.

However the documentation is usually constrained to those with the means to sustain processes that are often demanding in terms of financial, human and technical resources, while access provision raises renewed demands for constant updating to match the evolution of technical standards and formats. Therefore, even though DTs are widely available, it is their upkeep and migration as technology advances that may render them 'lost'. Moreover, many new forms of performance making and transmission are by their nature utilising DTs but cannot be easily archived because of their interactive or distributed nature. These performances only exist in the moment of engagement. These cases indicate that while performance practice benefits from DTs in many ways, it also retains its condition as a body-to-body practice (akin to an oral tradition) even when the human body is apparently absent (virtualised).

Seen in the light of these trends and associated challenges, the idea of performance-based cultural heritage emerging from this study confirms, as argued in the RICHES taxonomy, that cultural heritage is "not just history", at best meant to be preserved, but "an iterative, continuous process which is concerned with contemporary 'living cultures'" (RICHES Taxonomy).

7 CONCLUSION

7.1 Commonalities from tasks considering the context of change

At an early stage, RICHES project partners took the decision to let each of the five tasks have the freedom to explore and consider their own thematic sectors independently, the only constraint was the overarching theme of 'the context of change'. The approach taken necessitated that once each chapter had been written, they would be examined to identify commonalities, themes that were present in each of the markedly different areas that have been explored within this document. The result has proven this decision to be correct, as there are topic, issues and benefits that have arisen several times within this deliverable. This conclusion will consider them further.

As described throughout this document, the arrivals of new technologies and digitization has changed the ways that the people of Europe think, live and work. Many, but certainly not all, of the factors within the context of change are as a result of this digital revolution. Although this analysis inevitably describes the technologies, it is the impact upon people and their social and economic wellbeing, attitudes and lifestyles that is of greatest interest and, in line with the RICHES project's overarching objective; the recalibration of relationships between people and their cultural heritage.

At a glance; from the preceding chapters, it can be seen that performance is now taking place in new different and hybrid spaces that appeal to new audiences and that Frieda 23 was created, based upon public feedback, to provide precisely those innovative facilities. This feedback from a public voice was used to shape an iconic new building, as it was with the new 'super' library in the UK, that provides open and vibrant new spaces.

One of the key features of a reanimated Hamamönü was the integration of craft skills, which have the opportunity to thrive, selling to the local public and tourists and demonstrating their importance. Communities of craft makers, and even performers, are able to network across Europe to hone their existing skills, learn new techniques and/or gain inspiration, including through the use of media such as YouTube.

Across each case study, it is clear that people are having to adapt/become re-educated to new (enhanced) ways of working, but also to take on hybrid jobs/roles that had not been conceived even five to ten years ago eg the digital curator of a museum, library or performance. They can do this either formally or informally, as technologies enable a DIY culture, where people can develop and raise audience awareness of their own products/brand through social media, either for cultural entertainment or to develop a business, even benefitting from user generated awareness through sharing eg retweeting.

Institutions work hard to adapt their heritage collections and services to meet the needs of the public, but they can never quite catch up, as technologies move on, new strategies (both for quality control of preservation and intellectual property) are needed and therefore individuals forge ahead to exploit their culture, with their relative unmediated creative freedoms. However, the role of institutions within European society should not be overlooked as community hubs and informal educational centres that support people to overcome the digital literacy gap and help those disenfranchised without access to technologies within this digital age.

7.2 Changing European Digital Context

> *"There was a time when connecting to the internet meant being tethered to a desk and chained down by cables. As wireless and mobile technology advance, users can not only surf the online world - but can also do it on the move, through a plethora of portable devices, including laptops, smart phones and tablets; with an increasing need for high-bandwidth, high-speed broadband that can cope with rich multimedia content."*[108]

This short quotation, from the EU's digital agenda, is only a small indicator of the tremendous speed of development and implies also what the tendency of the coming decades is. It is not necessary to read tea leaves to conclude that the structure, not only of communication, but of all social discourses will further change and that one of the major challenges of the contemporary society will be to ensure that democratic norms and values remain social consensus, i.e. part of the common sense all over generations and social spheres.

Digital media and the internet are continuously developing and transforming society. People nowadays spend a large part of their private time using information and communication technologies: almost 80% of German households have internet access and those who use the internet are regular users.[109] Three-quarters (77%) of internet users were online either every day or almost every day – in 2006 this usage was only 65% and therefore, one can observe a significant increase. Furthermore, the highest percentage of users are younger people.

What exactly are the digital media and the Internet doing for us? What role do they play in our society? Digital media are not just tools to communicate and to receive and retrieve information, they are more than that: digital media are bound to our life and are necessary to hold onto our lifestyle. For example, for 86%, the usage of digital media is a very important aspect in their life; 64% believe that technical devices and digital media augments their quality of life and 53% expressly want it to be always and readily accessible.[110]

Taking a look around one will quickly notice: on a daily basis, people are exposed to a huge amount of information that may lead us to "infobesity" and "infotoxication". The surrounding environment is filled with visual and auditive influences, impacting on perception and asking for attention and quick response. People move in a higher speed world full of impressions and, as a result, are easily distracted or disinterested. Only digital is not quite enough as they consume media at an increasing rate, through mobile internet connection and often people combine the media consumption with other media or another activity. As Jasper Visser writes, "We are obsessed input with new".[111]

Thus, digitisation is a component in users' lives and as such, their behaviour has changed. Following that, entertainment industry and media providers exploit that change. They improve their media concepts in order to be on par with the challenging user behaviour. Users require efficient tools and expect easy capable information with a good mixture between multiple use and individualized content.[112]

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[108] See: http://ec.europa.eu/digital-agenda/en/future-internet

[109] cf. https://www.destatis.de/DE/Publikationen/Datenreport/Downloads/Datenreport2013Kap12.pdf?__blob=publicationFile (Access: 10/11/2014). On the use of Internet, see Part 3.1., p. 336.

[110] http://www.studie-life.de/life-studien/digitales-leben/umgang-mit-digitalen-medien/(Access: 28/10/2014)

[111] http://themuseumofthefuture.com/2014/04/18/museums-in-times-of-social-and-technological-change/(Access: 23/10/2014)

[112] cf. Sandra Evers, „Medienindustrie - Digitalisierung – Netzwerke." VDM Verlag Dr. Müller,2008

Users nowadays expect immediate supply and accessibility to information and/or services provided digitised and in all-over multiple channels; 56% expect individual services tailored to their interests.[113] If products, companies, knowledge-based services, the entertainment industries educational institutions or libraries and museums – do not satisfy their users' needs, they miss the connection with the public and remain in an leadless position with unused services. Digitisation is becoming a definitive part in all sectors: if providers of educational services, performance and leisure time facilities want to develop their attendance now and in the future, digital offers have to be provided and new, innovative digital facilities need to be created.

7.3 Review and Summary

The certainty that can be drawn from the previous section and from each of the chapters is that society is changing. The pace at which new technologies evolve has shaped the way that people live and interact with cultural heritage and will continue to do so in the future. There can be no doubt that new opportunities have been created that were not considered just a few years ago and that these can be embraced, but given the speed of change, it is important that people and institutions are not left behind.

Social media facilitates a lively exchange on cultural heritage and related topics, with valuable discourse generated, including innovative and entertaining story telling. People are now able to easily discover their ancestral heritage and enter into discussions/forums to interact with others with geographical limitations no longer presenting a barrier. This is not necessarily the same definition of heritage that institutions may hold, and can be ethnically inclusive, as it could relate to specific community roots rather than any national or European identities that had previously been chosen for them.

Platforms such as Pinterest, Netflix, Spotify, Facebook, Snapchat and YouTube have expended the vision and capability of people to interact and generate their own culture. The modern audience does not want to be told what to do or how to evaluate their cultural heritage; they have more access and therefore a different understanding of things than previous generations. Their culture is personally reflective, found through social interaction and festivals and creatively shared with contemporaries.

The research shows that there is a large gap between heritage practice and the world of (young) audiences. A low interest in transmitting heritage co-exists with engagement in cultural practices, emulating individual passions and interests. To ensure that cultural heritage work meets the need and motivations of the intended audience(s), co-creation (jointly developing and creating value) can be a powerful approach. In addition to providing interactive environments that can be visited both in person and online, newer practices such as linked open data can help interconnecting heritage collections and presentations with other sources and contexts and, thus, even enhance its use and exploitation. This has also led to the growth in the creative re-use of content made available by cultural institutions as part of their digitization strategies.

This expectation of accessing and using cultural content on a DIY basis has also led people to work with aspects of cultural heritage as a hobby or on portfolio basis, using the cheap and easily accessible technologies and making use of a wide range of inspirations, opinions and ideas available to them from the social media exchanges.

[113] http://www.studie-life.de/wp-content/uploads/2011/11/studie-LIFE_digitales-leben.pdf (Access: 28/10/2014)

People have shared ideas and techniques through forums and YouTube to enhance skills and blend approaches in terms of traditional crafts utilizing technologies or innovative performance in hybrid spaces, with digitized scenery enhancing artistic presentation. This is followed by creating awareness of a brand that can reach audiences far and wide and that is no longer restricted to the immediate geographical vicinity.

Digital technologies have evolved specific approaches to audience engagement and audience development, and contributed to the configuration of new audience profiles – e.g. virtual audiences attending online exhibitions, dance and theatre performances to co-creative audiences whose input is required from creation to staging of various CH events from museum exhibitions to performances.

However, the advance of technologies must be considered within a wider context, as despite widespread integration across cultural art forms, there is a strong interest manifested by artists and practitioners to maintain a definite place for the human artist or maker and render visible their creative or artistic vision, lest this becomes completely obscured by technologies. For instance, craft professionals may adopt or refuse a new technology depending on the space it leaves for them to express and make manifest their artistic vision or craft ethos.

It is also necessary to consider the role of the cultural institutions and the value of a real-life experience, involving experts and living artist with a clear association to a certain place and the role this plays for local bonds and, thus, local communities. Although there are opportunities for people to interact, create and perpetuate their culture, there is much heritage that needs to be considered. The conservation of traditional techniques cannot be put at risk and needs explicit care in how to preserve collections, considerations of intellectual property and copyright, as well as digitization to make content openly available.

New, digital born CH is becoming more and more common across several CH areas, and raises specific requirements with respect to communication, archiving, preservation and access provision. For instance, in the performing arts field some performance practice only exists within the digital environment and this is particularly vulnerable for the form/practice.

It is the continued responsibility of libraries and museums to preserve their collections and digital technologies are valuable tools, yet the supported archiving and preservation is not deprived of challenges. Apart from the costs associated with the process of recording and archiving, constant updating is necessary to respond to evolving technical standards and formats. The upkeep and migration of digital records is therefore a demanding process which may impact negatively on access provision.

The diversity of European society should also be considered within this conclusion, as digital technologies are not equally available for all. Whether they are used by museums, libraries and archives, craft professionals or performance companies and practitioners, their use is often demanding in terms of financial, human and technical resources, which makes them less accessible in some European areas. In particular, highly innovative use of digital technologies in cultural heritage management and communication is often concentrated in creative hubs such as London or Berlin.

There is also the reality that cultural heritage is predominantly accessed digitally by the younger generations, often referred to as digital natives, so that a further challenge that the cultural heritage work is currently confronted with is to ensure that no target groups (older and digitally illiterate people being the most frequent users of libraries and museums) are left behind, at a time when Web 3.0 and its added semantic value is clearly visible on the horizon. The community role in addressing the digital literacy gap is a very real and necessary unction of libraries and museums.

It therefore appears that there are two distinct tracks, one of mediated heritage by cultural institutions and the other of unmediated culture where members of the public utilise the new technologies to create for themselves both in their personal lives and innovatively in the spheres of performance and crafts. A further RICHES task will consider co-creation within an ethnographic museum to bring together the perspectives of the institution and younger people who would normally see little value in exhibits locked away behind glass. This is a further context in which change is taking place, as the two viewpoints need to be brought closer together for a sustained optimization of cultural heritage.

The chapter on the transformation of physical spaces demonstrated that there has been a new approach to interaction between institutions and the wider public. Frieda 23 included interaction and set a template for future projects with engagement before during and after the renovation work took place. Clearly it is a slow process for technologies to be incorporated into traditional decision making, with lessons learned along the way, but there is evidence that greater societal inclusion is beginning to take place and the incorporation of democratic decision making.

However, when considering this in relation to cultural institutions and spheres, although some have opened up new opportunities for co-creative practices and cultural heritage related business activities, cultural heritage is still controlled by gate keepers so that the democratization inherent in digitizing cultural heritage assets is still very limited. In the coming years, there needs to be an attitude shift towards openness, sharing and learning between institutions, much in line with the trends of open source and open design, that needs to be fostered to support the uptake of proven innovative practices.

Digital technologies are still within a relatively early phase of existence and will continue to evolve and offer greater opportunities, although social attitudes will need to adapt to optimize their potential. It should certainly be noted that their integration into the communication and promotion of cultural heritage suggests a strong educational potential. Developing digital tools carries wide-ranging benefits for enhancing learning about the content and how it transmits and can contribute to making art forms more inclusive - even if their use doesn't radically change the art itself.

It is not always possible to predict what will happen next with dynamic new technologies, but in addition to institutions opening up content and engagement with thematic portals, the immediate future is likely to include BYOD (bring your own device) and gamification experiences, leading to location based services and maker spaces, with natural user interfaces and the Internet of Things on the five year horizon. The presentation and consumption of cultural heritage will need to continue to adapt to new technologies and demands.

On the level where new cultural heritage is produced and thus also provided for processing by future generations, the research within these chapters has confirmed the initial theory that technologies have a strong impact on all fields for production and processing of cultural heritage elements or cultural heritage related products.

A majority of the users of these new opportunities describe time and cost efficiency savings, an enlargement of available options and the opportunity to develop new kinds of products. When contributing to producing and processing cultural heritage, new technologies and new technical options result into a pronounced tendency towards interdisciplinary, cross-sectorial and transnational approaches.

A definite contribution of technologies is in sustaining networking and collaboration between peers across large geographical distances, resulting in stronger communities of practice and rapid exchange of information and know-how. These communities of practice fill an important educational role, enabling practitioners to uplift their knowledge and skills and keep constantly updated with new trends and advancements in their professional fields.

7.4 Impact

As described within the introduction, this deliverable has an important role within the RICHES project, as in many ways it is the starting point for research into specific themes that are considered again later through the lens of specific work package objectives.

For instance, the research on museums and libraries will be further explored in D6.1 – *Digital libraries, digital exhibitions and users: an interactive case study report*.

Mediated and unmediated heritage will be explored through a range of activities within the social development orientated Work Package 4 as part of D4.2 – *Good practice and methods for co-creation*.

The European craft sector is elaborated upon in the economic Work Package 5 in D5.1 – *The use of craft skills in new contexts*. With the physical spaces, places and territories considered as part of D5.2 – Place making, promotion and commodification of CH resources.

The performance chapter is also reflected in a numbers of ways, including through a Work Package 6 case study, with a film to be shown at the project's final conference. There is also consideration of an additional dedicated performance related deliverable that may be submitted within Work Package 3.

In addition, there are many less obvious links with other project tasks and deliverables that consider identity, community, economic and fiscal matters, use of best practice, public-private partnerships and, of course, policy recommendations, all of which have their initial base and consideration within the development of Work Package 3 that are reflected within this document.

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Experts interviewed

Marcel·lí Antúnez, artist and performer, Spain

Johannes Birringer, director of the Design and Performance (DAP) Lab and Acting Director of the Centre for Contemporary and Digital Performance, Brunel University (UK)

Oriol Broggi, Catalan theatre actor and director, Spain

Patricia Caicedo, singer, musicologist and physician, Spain

Isabelle Choinière, international artist, researcher, author and lecturer, dance and technology, UK and Canada

Francesc Cortés, Coordinator, Research Group MUSC at the Universitat Autònoma de Barcelona. Digitalization, collection, recording and dissemination of music and sound records

Scott deLahunta, Senior Research Fellow, Centre for Dance Research, Coventry University (UK) and Deakin University (AU); R-Research Director, Wayne McGregor|Random Dance and Project Leader Motion Bank/ The Forsythe Company;

Eva del Rey, Curator of Drama and Literature Recordings and Digital Performance at the British Library (UK)

Kerry Francksen, Senior Lecturer and Practitioner, dance. School of Arts, De Montfort University (DMU), UK

Vivian Fritz, researcher, dance and new media, the University of Strasbourg

Sue Hawksley, dance artist. Articulate Animal. UK and Australia

Alex Posada, digital creator, researcher in the field of interactive and new media, producer and music creator, Spain

Carles Sora, associate professor of interactive communication at the Audiovisual Studies Department of Pompeu Fabra University, Barcelona

Pepe Zapata, Director of Communications at Mercat de les Flors, Spain

Moreover, the following experts have been interviewed:

- Artistic director of theatre and dance at an arts foundation, Greece
- Researcher, professor and chair in performance and technology, UK-based university
- Researcher and professor in Dance and Choreographic Practices, UK-based university
- Reader in Interdisciplinary Choreography, UK-based university

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The National Dance Network - http://nationaldance.co.uk/

The British Council Theatre and Dance program - http://theatreanddance.britishcouncil.org/projects/

UK Theatre - http://www.uktheatre.org/

Official website of the FRIEDA 23 project - http://www.karo-ag.com/frieda23/haus/

www.hamamonu.com.tr: Flash based website, both in Turkish and English. Gives detailed information about Hamamonu, restoration, activities. Every page, slide, explanation is supported by pictures.

http://360hamamonu.altindag.bel.tr/: 360 Panoramic, 3D website from all perspectives. You can virtually visit Hamamonu both day and night vision and get detailed Turkish information about important mansions, mosques. The website enables to link to other pages, take a snapshot of the current view, enables facebook sharing to friends and adaptable in mobile platforms. You can even check google earth, maps, GIS to see the exact location. Also you can compare Hamamonu's old and restored versions.

Facebook: Besides official accounts, there are lots of Facebook accounts from the restaurants, cafés located in Hamamonu. (https://www.facebook.com/altindagbel) In addition, there is an official Facebook page of Altindag Municipality of Ankara. The page has about 34000 likes and 344 visits. It provides detailed information about their activities and news in Altindag and Hamamonu (https://www.facebook.com/hamamonualtindag). The operation of this site was started in April 2011. At the time of investigations, it had 14000 likes and 270 visits. Lots of pictures and videos about the activities, news etc. are presented there.

Twitter: https://twitter.com/altindagbel - The official twitter account of the municipality of Altindag. The account has 1568 tweets and 2125 followers. The account is online since June 2011. https://twitter.com/hamamonuoffcial. The official Hamamonu profile has 569 twits and 1003 followers since June 2012. Pictures from the district, activities etc. are presented there.

Youtube: http://www.youtube.com/altindagbld. The Youtube profile is online since 25 February 2011. The Youtube page has around 65.000 visits and 100 subscribers. Page gives information, activities, news from Altindag and Hamamonu.

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