

Karol Jan Borowiecki · Neil Forbes
Antonella Fresa *Editors*

Cultural Heritage in a Changing World



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RICHES
RENEWAL, INNOVATION AND CHANGE:
HERITAGE AND EUROPEAN SOCIETY

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ISBN 978-3-319-29542-8

ISBN 978-3-319-29544-2 (eBook)

DOI 10.1007/978-3-319-29544-2

Library of Congress Control Number: 2016934040

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Cover illustrations: Promoter Digital Gallery; Dancers Malaysia: masuti / Shutterstock

Printed on acid-free paper

This Springer imprint is published by Springer Nature
The registered company is Springer International Publishing AG Switzerland

Acknowledgements

The editors gratefully acknowledge the invaluable contributions made to the preparation of this publication by Victoria Thoms who skilfully and assiduously assisted in the editing of the manuscript and by Valentina Bachi who organised editorial processes expertly and efficiently. In conceiving this book, the editors wish to acknowledge a particular debt of gratitude to Marion Doyen for the inspiring and profound insights into cultural heritage which she so generously and enthusiastically provided.

This book has been conceived and developed in the context of research carried out under the auspices of RICHES—Renewal, Innovation and Change: Heritage in European Society—a project funded by the EU’s Framework Seven Programme, for research, technological development and demonstration under grant agreement no 612789. We are grateful to Zoltán Krasnai, Project Officer, for all his advice and support. More information about RICHES is contained in the book’s Appendices.

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Section 1: Introduction

It is axiomatic that every age in the course of history experiences change to a greater or lesser extent. In the twenty-first century, however, it hardly seems an exaggeration to suggest that the world faces epochal changes which affect every part of society, including the arenas in which cultural heritage is made, held, collected, curated and exhibited or simply exists. It is the intention of this book to reflect critically on the relationship between cultural heritage and the impact of these changes, whether they be economic, social, demographic, technological, cultural or in fact a complex intertwining of multiple forces. Further, in this context of a set of dynamic influences that are moulding change at a rapid pace, this study contends that cultural heritage has a particularly important role to play.

Broadly defined, cultural heritage encompasses the extraordinarily rich and valuable tangible objects and materials in the collections of cultural institutions; the heritage represented in landscapes and in the built environment; and also intangible, living heritage such as customs and traditions. Heritage may be mediated through, for example, the exercise of institutional practice or it may be unmediated in nature, as is the case with traditional practices carried out day by day.

Cultural heritage has enormous potential in terms of its contribution to improving the quality of life for people, understanding the past, assisting territorial cohesion, driving economic growth, opening up employment opportunities and supporting wider developments such as improvements in education and in artistic careers. Given that spectrum of possible benefits to society, the central purpose of this collection of essays is to make a creative addition to the debates surrounding the cultural heritage domain in general; the range of studies that follow here are intended to be a resource and stimulus to help inform not just professionals in the sector but all those with an interest in cultural heritage.

In a world that appears to be characterised both by difficult, and sometimes threatening, change and by great opportunities for development, one element stands out: the digital factor. While digital technologies and digital applications are profoundly influencing and shaping the environment of change in contemporary society, they also open the way to new, distributed, ways of working, communicating and investigating new products and services in the cultural heritage sector, as in other sectors.

Fundamental change of this kind necessitates the recalibration of the relationship between institutional, cultural heritage practices and individuals. The application of digital technologies to the different forms of transmission of heritage demonstrates enormous benefits in terms of effectiveness, cost reduction, visibility and social, cultural and educational inclusion. But the use of any technology always gives rise to very real challenges: these need to be recognised, understood and managed by all involved in heritage-related work. More and more people are, for example, assuming the role of archivists and work with their own collections of cultural content and thus have a stake in how cultural content is made available; immediate access, reuse and reproducibility are more important to them than sustaining access to the more static and stable records of the past. The ease of transmission and reproduction also helps to open up a new marketplace for content providers, including cultural institutions, to create new opportunities for the enjoyment and consumption of cultural heritage. Yet, at the same time, there is a looming tension: because of a lack of custodianship based on the traditional methods of archiving, there is the risk that digital cultural heritage may be mislaid, lost or be rendered irretrievable.

During their long history of interacting with objects and visitors, cultural institutions open to the public—museums and galleries, libraries and archives—have undergone many stages of reinventing their function and role in society. The museum's crucial role as a keeper of cultural heritage and a location for hands-on, instructional learning is generally recognised. But views on the museum's role have altered significantly since the nineteenth century: as society has changed, the role of the museum in society has been in motion as well. Most museums started out by preserving cultural (historical) knowledge, building on the object as a container of cultural information, and as a result, museum collections have inevitably become the cumulative result of past collection policies and past managerial decisions. In recent decades, however, museums have been transforming themselves from rather exclusive, dusty and dark spaces to strong community anchors that strive for inclusivity to enhance civic engagement, cultural opportunities and economic vitality. Museums have come to realise that they are not merely keepers of cultural heritage, nor are they solely places of learning where the public comes to be educated and learns from a voice of authority. The traditional division of roles between supplier and customer, as well as between citizen and government, is changing. New technologies make it possible for members of the public to express themselves and to be linked one to another. Current generations of visitors want to take part and to contribute actively to what goes on inside museums and are less inclined than previous ones to play a passive role in this respect. The percentage of 'prosumers', or consumers who are co-producing, is rising. Museums seek to be bridges between cultures and instruments of societal transformation, both forgers of new futures and society's storehouse of memories (Saldanha 2008). To do so, museums need to explore ways to connect to a greater variety of stakeholders.

Ever-evolving and increasingly powerful information technologies have fundamentally changed the nature of global relationships and have turned the world of the twenty-first century into an increasingly interconnected network of individuals,

subcultures, groups and governments. The pace at which such multivarious cultural institutions are making their collections of cultural heritage accessible online through open access is accelerating. Similarly, projects like *Europeana* have taken these efforts to a new level, and millions of objects are being made accessible for the world to enjoy. Nonetheless, merely placing collections online in their entirety does not necessarily help to make connections with and between diverse user communities. New tools are required, therefore, that will allow for the sharing of curatorial authority.

For the museum sector to truly assume its role as an instrument for achieving social cohesion and inspiring global cultural competence, its praxis needs to revolve around facilitating co-creative knowledge production. Analytical frameworks based on multivocal, multi-methodological approaches offer a way to greater cultural enrichment—new museological vocabularies and grammar in order to facilitate connections with a range of audiences and enable museums to take on their roles as catalysts of social change.

Libraries, too, have been strongly influenced by societal changes and the advent of digital technologies. Essential resources for information retrieval, they must provide highly effective services of good quality. Central to this and to the development of services which are able to adapt to different user demands, and hence to the expansion of the user base, is a full understanding of the needs and characteristics of all potential readers. If libraries are to respond with customised services, the relationship between individuals, the information required and related behaviours must all be evaluated. While digital technologies offer enormous opportunities for the growth and sustainability of libraries, some degree of foresight in planning skills development for specialist staff who are able to take advantage of innovations in infrastructure is also required (Fresa 2013).

The emergence of new media technologies and associated social networks has driven a massive transfer of expressive power towards young people. The authors of *Video Republic* argue that this matters for the mainstream media, decision-makers and other institutions because it offers a new place to debate, a new basis for citizenship and a new model of change (Hannon et al. 2008). People have always wanted to tell stories about their experiences and to connect to shared meaning and values. Under the influence of new technologies and with the availability of tools for (collaborative) media creation, the possibilities for the public to capture and access collected information, to express themselves and voice opinions, have drastically increased.

Though the relation of such informal and dynamic processes that happen ‘now’ to future developments is yet unclear, it seems obvious that the construction of living media and its connection to the notion of future heritage is happening mostly outside the walls of heritage institutions. The possibilities new technology offers for co-creation, transmedia storytelling (or better yet story creation) and user engagement open up new areas of participation—that people see themselves and their experiences as part of history rather than as mere observers of it. Citizens may then better understand their own role in the creation of civil society and see this reflected in their own representation in media and cultural institutions while on the other

hand facilitating cultural institutions with tools or models on how the anthropologic aspects of new media can be utilised to integrate museums and other forms of curated heritage, such as historic gardens, more effectively into the daily context of society.

This book also aims to encourage reflection on the transmission of cultural heritage and people's sense of individual and collective identity and belonging. For example, measures of wellbeing and life satisfaction show that feeling part of a community and having good social relationships is important. Conversely, not having a sense of shared cultural heritage can lead to a sense of 'cultural homelessness' (Navarrete and Jenkins 2011). A sense of shared heritage is very often expressed through relationships to particular locations. Places and identities are often experienced or remembered as stable and unchanging, but a close examination of the geographies and histories of place reveals the apparent stability to be a product of processes which attempt to 'fix' particular identities to places through the construction of stories, or what has been described as 'geographical knowledges' (Cook and Crang 1996). These can emerge organically or can be constructed for particular purposes which could include political projects to establish collective identities (such as nation states or the European Union) or commercial projects to add value to commodities by creating distinction in the marketplace (such as the creation of markets for 'authentic', 'traditional' or 'ethnic' foods).

Recognising that 'place identities' are forged and reforged through the interplay of numerous human and non-human agents is not to deny how important place identities are to people: they can be a significant well-spring of resources from which individuals or groups develop a sense of self-identity. For many people, a sense of belonging to a particular place—or of being displaced through exile or migration—is a crucial part of how they understand who they are. For others, a feeling of not belonging, and not having a 'home place', can be equally important in shaping their sense of self. The digital transmission of cultural heritage can contribute to sense of place and social and territorial cohesion through enabling access to—and ownership of—shared cultural resources.

The cultural heritage sector is also witnessing an increasing level of explorations in the virtual world—the interplay of digital technology, virtual spaces and material and embodied experiences of place (Affleck and Kvan 2008). Virtual environments have allowed for the development of new forms of art and interaction. Performances are increasingly moving into unconventional spaces and simultaneously using digital technologies to devise new methods to document the 'live' as well as creating new tools to increase audience engagement in and enjoyment of events by exposing something of the artist at work.

The creation and production of cultural artefacts and the distribution and consumption of cultural heritage are closely related not just to issues around the use of digital technologies but also to questions of fiscal and economic policy, such as the effect of taxes and subsidies that operate at the national level (O'Hagan 2011). According to Ray, the culture economy can be seen as an attempt to '(re)valorize place' and 'localize economic control' through the commodification of resources such as traditional foods, regional languages, crafts, folklore, landscape systems

and so on (Ray 1998). Many of these resources depend on the continuation of traditional, artisan skills, such as the production of speciality foods or crafts. These in turn often draw on localised knowledge which has been transmitted over generations. Such resources, and the skills and knowledge required to maintain them, contribute to the construction of distinctive place identities which can be used in tourism and other place-based development strategies.

The emergence of digital technologies can present both threats and opportunities for place-based development, social and territorial cohesiveness and economic development. For example, given that digital technologies operate to construct ‘virtual’ territories and environments, they can contribute to the commodification and exploitation of cultural heritage resources for the purpose of local economic development. This may give rise to issues around the ownership and control of heritage resources: the cultural economy emphasises local ownership and control by communities, but the impact of digital technologies focuses debate on the nature of ownership and how to support distinctive connections between products and places. Cultural economic policy must therefore take account of the need to be both efficient in fiscal terms and also sensitive to developments in how cultural heritage is produced and consumed.

Similarly, at a time of considerable economic and social transition across the world, the cultural heritage of specialised knowledge and skills associated with hand-making and manufacture deserves to receive greater attention. One of the major problems currently associated with the heritage of advanced manual skills embedded in the craft-related manufacturing sector is that knowledge about them is generally fragmented. More should be done to quantify directly their overall economic significance, document their varied contribution or trace their historic and cultural origins.

The international community comprises legal entities characterised as states, but the identity of the population that lives within the boundaries of any one state is often far from homogeneous. Indeed, it is problematic even to speak of ‘community’ at the level of the nation state. Naturally, the power a state is able to exercise both within its borders and in the outside world rises and falls. In the aftermath of the First World War, aspirations of nationhood were given recognition as the legitimate right of groups who shared a common ethnic or linguistic identity to determine their own future. Yet, in addition to the majority population, various minority populations were also swept up within the borders of the newly created states. It is even possible to argue that Europe is witnessing the unwinding of the last stage of imperialism with the rise of nationalistic aspirations of regions or ‘countries’ within unitary states, such as the United Kingdom or Spain, that were, formerly, imperial powers.

The Western world proclaims its adherence to the universalism of a doctrine of inalienable human rights—a constitutional settlement enshrining, among other things, the principles of democratic governance, freedom from arbitrary arrest, equality before the law and religious tolerance. Where the concept of the nation state comes into conflict with such universalist principles is over the question of citizenship. In a technical, legal sense, those migrating to European countries may

become citizens but may identify themselves as belonging to a minority community or be identified as such by the established citizenry and, as a result, may experience a degree of exclusion from mainstream society.

The linkages between Europe's historical cultural and political influence overseas (constructive and destructive) are key factors in framing how issues of migration, identity, individual freedoms and conflict are perceived and responded to in the modern era of multicultural European societies. The means by which some of Europe's ethnic minority populations are influenced by Europe's history and self-perception imply that the framing of cultural heritage will, of necessity, continue to undergo change. Ambivalence about interpretations of heritage has significant implications for discussions on the political uses of heritage and who owns and experiences shared cultures, particularly in a modern European environment of contested identities and social tensions.

Legacies of conflict between and within countries, held consciously or unconsciously, help to explain the multiple identities contained within nation states. Societies' relationship with physical reminders of past conflicts is intrinsically dynamic, subject to perpetual reformulation by perpetually reformulated societies. The way this social landscape is perceived, engaged with and sometimes appropriated towards political ends changes over time. In the years following the Second World War, Western states have become increasingly heterogeneous not only because of ethnic diversity but also because societal structures can no longer be characterised so easily in terms of class and, for example, collectivism no longer commands support as a way to organise the economy.

In contemporary political discourse, it has become fashionable to refer to initiatives devolved to the local level as 'community-led'. Yet, frequently, it is the geographical or administrative unit which defines the community concerned, not demonstrable social cohesion. There continues to be considerable scholarly discussion on how heritage values can be defined and assessed and how methods of participatory governance might allow for a broad spectrum of views, including issues related to gender, to be taken into account in decision-making (Reading 2015; Smith 2008). As Rodney Harrison has suggested, cultural heritage is as an assemblage of things that we hold up as a mirror to the present, associated with a particular set of values that we wish to take with us to the future. He argues that 'dialogical models' of heritage decision-making provide a productive way to use uncertainty, with controversy and crisis foregrounded as the very crucibles within which the ideal collectives for decision-making are formed (Harrison 2013: 229–230).

The book is divided into four interrelated parts: context of change (Chapters 'Cultures and Technology: An Analysis of Some of the Changes in Progress—Digital, Global and Local Culture', 'Interdisciplinary Collaborations in the Creation of Digital Dance and Performance: A Critical Examination', 'Sound Archives Accessibility', 'Technology and Public Access to Cultural Heritage: The Italian Experience on IT for Public Historical Archives' and 'Copyright, Cultural Heritage and Photography: A Gordian Knot?'); mediated and unmediated heritage (Chapters 'A Case Study of an Inclusive Museum: The National Archaeological Museum of Cagliari Became "Liquid"', 'The Museum as Information Space: Metadata and

Documentation’ and ‘The Museum of Gamers: Unmediated Cultural Heritage Through Gaming’); co-creation and living heritage for social cohesion (Chapters ‘Change of Museums by Change of Perspective: Reflecting Experiences of Museum Development in the Context of “EuroVision—Museums Exhibiting Europe” (EU Culture Programme)’, ‘Technologies Lead to Adaptability and Lifelong Engagement with Culture Throughout the Cloud’, ‘The Place of Urban Cultural Heritage Festivals: The Case of London’s Notting Hill Carnival’, ‘Tools You Can Trust? Co-design in Community Heritage Work’ and ‘Crowdsourcing Culture: Challenges to Change’); and identity and belonging (Chapters ‘The Spanish Republican Exile: Identity, Belonging and Memory in the Digital World’ and ‘Growing Up in the “Digital” Age: Chinese Traditional Culture Is Coming Back in Digital Era’). The first part—context of change—begins with a chapter on the changes associated with the use of digital technologies in contemporary Western societies. The chapter reviews occurrences of recent past and what is happening in social and individual experiences today. Here, Mariella Combi begins the part by providing general reflections on the role of digital technologies in the past and present and discusses what questions, expectations and characteristics associated with digital technologies have interested scholars over time. The chapter further looks at the problem of people who were born after 1980, the so-called digital natives.

The second chapter, written by Sarah Whatley and Amalia G. Sabiescu, explores the convergence between performance-based cultural heritage and new technologies, with a focus on interdisciplinary collaborations in creation and making processes. These interdisciplinary work spaces present high potential for innovative art making, because they bring together deep knowledge of the arts and artistic sensibility with a sound understanding of technology languages and possibilities. At the same time, being situated at the confluence of different fields of practice and research dwelling on diverse epistemologies and approaches, interdisciplinary collaborations do more than configure new ways of making art. They contribute to synergies between arts and technology fields, marking places of cross-fertilisation, blurring boundaries and influencing the evolution of forms, theories and practices. Together, interdisciplinary artscapes and knowledgescapes contribute to opening up and pushing the boundaries of thinking and art making, reconsidering taken for granted assumptions and coming up with radically new art forms.

The third chapter addresses the impact of the computational era on web portals containing digital audio archives. Silvia Calamai, Veronique Ginouvès and Pier Marco Bertinetto characterise digital audio archives as the final outcome of several disciplines, from oral history to linguistics, from anthropology and ethnography to social sciences. The chapter presents the relationships between digital audio archives and intangible cultural heritage as well as describes case studies that shed some light on developing archiving and retrieval of data while also respecting the rights of others.

Across Europe many programmes have been carried out involving the use of digital technology to promote a larger access to cultural heritage. This has been through the collection of metadata on cultural products preserved in the country and

the provision of digital cultural products. In chapter four, Calogero Guccio, Marco Ferdinando Martorana, Isidoro Mazza and Ilde Rizzo analyse some of these programmes by assessing how digital technology is used to promote a larger access to cultural heritage in Europe. Investigating the production of cultural goods, use and valorisation of cultural heritage as well as the costs of preservation, the authors explore further how digitisation techniques and web infrastructures affect activities carried out by Italian public historical archives.

Chapter five explores the complexities of copyright as it applies to digital photography. Frederik Truyen and Charlotte Waelde refer to a project aimed at digitising photographic collections from museums, libraries, archives and photograph agencies and outline the challenges faced and what solutions have been suggested. The authors propose that cultural heritage institutions should consider their digitisation programmes by focusing on the human rights lens to culture and cultural rights, before asking how copyright may be used to meet strategic goals related to privacy protection, safeguarding authenticity of cultural heritage or protecting existing business models. While the suggested focus does not resolve all of the copyright conundrums that arise in this sector, it could help stakeholders to think differently about issues involved.

The second part—mediated and unmediated heritage—which begins with chapter ‘A Case Study of an Inclusive Museum: The National Archaeological Museum of Cagliari Became “Liquid”’, opens by presenting the experiences and outlining the main guidelines gathered during a project aimed at increasing museum accessibility, which was financed by the Italian Ministry for Cultural Heritage and Activities and Tourism and applied to the National Archaeological Museum of Cagliari. Anna Maria Marras, Maria Gerolama Messina, Donatella Mureddu and Elena Romoli outline the features of a ‘liquid museum’ by focusing on adaptability and inclusivity. The approach presented is replicable and also sustainable over time, both in terms of economic costs and for the technologies that it uses.

Although museums vary in nature and may have been founded for all sorts of reasons, central to all museum institutions are the collected objects. These objects are information carriers organised in a catalogue system. Chapter seven outlines the concept of a museum as an information space, consisting of an information system related to different methods of reasoning. Trilce Navarrete and John Mackenzie Owen discuss the new possibilities offered by digital technology and the changes brought about by the way in which visitors come into contact with objects. Their central claim is that the visitor is moved from being onsite within the museum’s information space to being outside the museum in the online information space of the Internet. This has fundamental implications for the institutional role of museums, our understanding of metadata and the methods of documentation. The onsite museum institution will, eventually, not be able to function as an institutional entity on the Internet, for in this new information, space, objects, collections and museums all function as independent components in a vast universe of data, side by side at everyone’s disposal at anytime, creating the future potential for users to access cultural heritage anytime, anywhere and anyhow.

In chapter eight, Serdar Aydin and Marc Aurel Schnabel present the concept of the Museum of Gamers, which sits at the convergence of contrasting realities. On the one hand, there is a cultural artefact that has a concrete value attached to its authenticity. On the other hand, its digital interpretation has its own systems of values. As information is now available everywhere, people expect new standards from museums that go beyond mere object exhibition accompanied by explanatory texts. The Museum of Gamers is a conceptual proposal not only for the dissemination of cultural heritage information but also for its production through contemporary media technologies.

In a changing Europe, museums need to adapt to become places where all members of society feel represented and are stakeholders in their cultural heritage. Part III—co-creation and living heritage for social cohesion—follows up these needs and begins with a chapter by Susanne Schilling on the museum development project ‘EuroVision—Museums Exhibiting Europe’. The chapter outlines a three-tiered concept framework which encourages multilayered meanings in museum objects to become more visible, aiming to renegotiate the roles of museum experts and visitors and to strengthen international networking between heritage institutions in order to broaden national perspectives on heritage and overcome Eurocentric views. Ideas as well as statements from the executive museum partners provide an insight on how the changes can be implemented in the museum work to contribute to presenting cultural heritage in a contemporary European way.

Cultural heritage represents one of the most important drivers for personal development, social cohesion and economic growth in Europe. Although the general population is aware of this fact, cultural heritage is still underexplored and cultural activities are not incorporated into citizens’ lifestyle. Technology offers a potential to increase awareness about cultural offerings and create a public engagement with culture. The current digital solutions adopted by cultural heritage institutions fail to achieve a lifelong engagement and thus do not support institutions in increasing the number of visitors and retaining them. In chapter ten, Silvia de los Rios Perez, Maria Fernanda Cabrera-Umpierrez, Maria Teresa Arredondo, Shanshan Jiang, Jacqueline Floch and Maria Eugenia Beltran illustrate how cloud-based technologies can be exploited to increase a cultural lifelong engagement. The cloud is used to support technologies that enable adaptive and personalised cultural experiences according to individuals’ interests, co-creation of cultural heritage experiences and active user contribution to social storytelling.

Chapter eleven moves towards a consideration of urban cultural heritage festivals and explores whether they become catalysts for the promotion of community and territorial cohesion, especially in an age of heightened diversity. In the midst of reduced inhibition, social mingling and jollification, urban cultural heritage festivals offer a space in which ideas of belonging and togetherness are embodied. Despite being mass gatherings where representations are virtual and somewhat fleeting, the intensity and intimacy of human interactions generated at events can initiate new social relationships, induce social equilibrium and create strong bonds. By building on the example of London’s Notting Hill Carnival, Europe’s largest street festival, Ernest Taylor and Moya Kneafsey explore how

the event promotes a sense of belonging and cohesion in an urban space, particularly among younger age groups in the community and among the festivalgoers.

Then in chapter twelve, Simon Popple and Daniel H. Mutibwa examine the role of co-design methods in relation to the recent Pararchive Project that took place at the University of Leeds. The chapter describes curatorial tools that were designed and tested by communities in conjunction with technology developers. Using co-design methods in combination with innovative storytelling workshops and creative technology labs, the chapter demonstrates the necessity of co-creation approaches to the problems of digital curation, democratic encounters with official culture and developing new partnerships able to consider the challenges of the digital archive. The project resulted in the creation of the new storytelling tool Yarn and offers a series of insights into co-creation methods, the role of institutional voice, concepts of democratisation of institutional culture and how to crowdsource public expertise.

In chapter thirteen, Dora Constantinidis highlights some of the challenges of engaging people with crowdsourcing cultural heritage and the requirement of designing appropriate engagement strategies. The need to crowdsource Afghan cultural heritage is considered given that it is currently facing many threats to its preservation for future generations. Constantinidis suggests that since the public can play a greater role in preserving their heritage, authoritative control is reconsidered and adapted to align with heritage that has been deemed important by people. Irrespective of these challenges, the opportunity to digitally preserve heritage should take precedence, especially in high-risk countries facing conflict and sociopolitical unrest.

Beginning with chapter fourteen, the fourth part, identity and belonging, provides an analysis of how the memory of exile grows through the Web and changes over time. In recent years there has been an increasing number of websites dedicated to providing information about the Spanish Republican exile. These are generally created by exile descendants' associations, research groups or private individuals. The recent growth of social networks, especially Twitter and Facebook, has simplified the exchange of this information and allowed the culture of the Republican exile to spread through the Internet and beyond, also influencing the scientific literature on this topic. Lidia Bocanegra Barbecho and Maurizio Toscano examine the channels of communication that have become places of identity and belonging for the exiles, creating and enhancing a culture that permeates not only communities interested in the subject but also people not directly linked to it. At the same time, the chapter aims to lay the foundations for the study of the memory of the exile in the digital domain.

Finally, chapter fifteen provides an important extension to our geographic focus, by exploring how going 'digital' has had a continuous impact on Chinese culture. After a period in which Chinese tradition and culture was undermined, and since the rapid economic development of the 1980s, the development of culture and education has not always equally kept pace. Situ Xiaochun outlines how the rebuilding of a culture and revival of traditions is desired and may be pursued through digital technology. From the perspective of his own personal journey, he shows how new

technologies let people understand tradition faster, enhance education and enable protection of cultural heritage. The chapter also investigates how Chinese artists work with the ‘digital’ and how Chinese people are experiencing the cultural changes of this digital era.

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Part I

Context of Change

Cultures and Technology: An Analysis of Some of the Changes in Progress—Digital, Global and Local Culture

Mariella Combi

Abstract

The analysis presents some reflections on the changes produced by the use of digital technologies in contemporary Western societies. The scope is to understand the occurrences of the recent past, from the second half of the 1900s, and what is happening in social and individual experiences today. To devise a future, to decide how, when and what to offer in order to transmit to young people the fields of knowledge and skills that will be of use for managing their future successfully in a changing Europe. The prevailing theoretical approach is from an anthropological cultural point of view with interdisciplinary encounters. The chapter is divided into three parts: the first two are general reflections on the role of digital technologies in the past and present and focus on questions, expectations, characteristics that have interested scholars over time. The third level looks at the problematic features of people who were born after 1980, the so-called ‘digital natives’.

The aim of this article is to understand the cultural changes brought about by the rapid diffusion of the new communications technology in the globalized context of the West. The main slant is from a cultural anthropological point of view, but it is inevitably also interdisciplinary due to the common ground shared with philosophy, psychology and sociology. The analysis intends to make some proposals on how to think about a European future, and how to intervene consciously in the current situation so that it keeps pace with the young, the so-called ‘digital natives’ (Prensky 2001). In order to do this, I begin by tracing a brief outline of the reasons why the discipline of cultural anthropology plays such an important role in the understanding of the digital revolution which today is a part of our everyday life.

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K.J. Borowiecki et al. (eds.), *Cultural Heritage in a Changing World*,

DOI 10.1007/978-3-319-29544-2_1

The new information technologies and their global diffusion have radically influenced the changes in Western society and locally. The current process of globalization has favoured and has been strengthened by the Internet which has evolved with unprecedented rapidity.

Cultural differences between groups of human beings have always been at the very core of cultural and social anthropology since it became an academic discipline: as Hunnerz (2010) says “diversity is our business”. Initially the discipline was concerned with the study of non-Western, so called ‘primitive’ cultures, which today also have an impact on our own society. Anthropology is characterized by multiple, interconnected fields of study which make up the ‘culture’ of a group of human beings. This anthropological concept helps us understand what we are talking about and consists of a wide range of different realms of knowledge elaborated by all populations, and their resulting actions and behaviours. Such spheres of knowledge are organized into a cognitive structure whose content varies from group to group.

These realms of knowing are considered useful by a society to tackle everyday life, extraordinary events, and problems that give meaning to the world around them. This cultural model is learnt at birth, more or less unconsciously; people make it their own by imitation and example and it is expressed in the local language. This is not a once-and-for-all procedure but a flexible one, subject to continuous change, a life-long learning process influenced by personal experience. Culture is, therefore, essential for creating a sense of belonging and identity for every human being (Combi 2006).

Every cultural model finds its own answers to internal impulses that occur over a period of time, but above all to those produced by encounters with other cultures. The modifications, theoretical or practical, which emerge from the diversity of the fields of knowledge that characterize different societies can be influential to a greater or lesser degree. This is a case in point for changes arising from the introduction of advanced technologies, whether these are felt consciously or unconsciously in our Western culture and in other cultures. When a human group comes into contact with new elements it arranges them inside an already existing pattern, thus modifying the order of what is already known. The introduction of new technologies, for example, has led to changes which required readjustment, or new articulations, of relations between the various fields of knowledge and the daily life of both the individual and the community. Technical revolutions have also turned out to be cultural revolutions, as witnessed by the changes wrought by inventions such as the wheel, the steam engine etc., and also by the passage from an oral culture to a written one (Combi 1992).

Anthropology has the instruments to analyse cultural changes and to understand the current process of globalisation and the effects created by information technology on different societies.

The role of technology in a society shows the indissolubility of the relationships that bind technology, society and the individual as shown by this analysis which identifies the numerous cultural changes caused by the use of information technology (IT). Technology is not only the machine itself but is the whole set of

relationships between human beings, utensils and fields of knowledge. Another important feature of anthropological theory is that it enables us to define culture as a set of communicative acts. Communication is what allows groups and individuals to represent themselves and interact with the world through norms and values.

For years now the mass media have in forecasting a future of homogenization, a levelling-out or even disappearance of cultural differences. Field research and ethnography carried out all over the world by anthropologists have maintained the contrary for decades and this has been confirmed by current trends. For example, the constant rising demand to have own cultural and linguistic features acknowledged within Nations such as the Scots in Great Britain, the Catalans in Spain, etc.

One final general observation: new technologies modify space, time, relationships and types of communication that still continue to co-exist with the other fields of knowledge inherent in a culture. The different pace of development of different societies in the world has been overwhelmed by this innovation, which has caught everyone unaware. The greater our awareness of living in a global world, the more strenuous our defence of local identity is. There is a gap between the speed at which digital technology is developing and the slow pace at which cultural models and their inherent values are changing. For example, time and space are perceived in different ways on the net and in real life, although the perception of the web is slowly influencing the perception in real life.

This push for cultural change greatly stimulated by the web, is present in all societies involved in this technological experience. Therefore, anthropology does not only seek to understand how one learns to become a member of a society, but it also seeks to understand how selection activities and human creativity modify the process of learning in order to open the mind and get to know and learn to respect the world view of others.

1 Changes in Cultural Codes, Behaviours and Fields of Knowledge

The following analysis is divided into the three periods of our society's time continuum past, present and future. To provide young Europeans with the necessary cognitive abilities to manage their future with greater awareness, it is essential to revise previously-held opinions and, with the benefit of hindsight, to answer questions that had no answers from the second half of the 1900s to the first decade of the twenty-first century, re-analysing the cultural changes that have occurred since then. The past that I am therefore interested in is the recent past. Many of us can hardly remember ever having lived without e-mail, computers, smart phones, all those technological devices that today seem indispensable.

Appadurai (1996) and Lévy (1997) who studied the interdependent phenomena of globalization and the computerization of society in the second half of the twentieth century, considered some aspects of the new instruments of communication problematic. Problems include: the rapidity of the transformations and rhythms

of knowledge acquisition; the ever-increasing number of people who have access to information through computers and who produce it; the instruments of knowledge inherent in the Internet; their influence on the creation of new personal identities and interpersonal relationships. The analysis of these aspects revealed that it was not only a question of technological change in the communications system, but a transformation of knowledge in the whole of Western society. It must be remembered that the situations analysed, then and today, are different in the USA and Europe and these differences are also apparent in the time it took for IT to spread, and the impact on users and on the collective or personal identity styles in the two different linguistic and cultural contexts.

I would like to introduce some features of the new technologies that have elicited various issues in the latter half of the twentieth century. Some have become obsolete or are no longer considered interesting, others remain in the background of some of the research and our perceptions, while others still make their presence felt in the current debate.

In his work *Cyberculture. Rapport au Conseil de l'Europe* published in 1997, the French philosopher Pierre Lévy proposed an analysis of the situation brought about by digital technology and by the theoretical and practical implications on society. He also underlined the main problems linked to current and future changes. The salient aspects of the digital era emerged with the widespread use of personal computers in the home. Above all, Lévy showed that the new technologies were transforming global society, something that had already occurred in the past with the alphabet, the printing press, the telephone, the radio and the television.

All the questions concern the cultural implications of the new technologies, the new relationships with knowledge, the necessary changes in education and training, the conservation of linguistic varieties, problems of social exclusion, and the impact on democracy. He also offers possible lines of intervention. This awareness has prompted questions on the role of IT and the cultural and social effects that the widespread introduction of these technologies is causing and will continue to cause.

Two concepts play a key role in this analysis: cyberspace and cyberculture. The term cyberspace was first coined by William Gibson in his famous science fiction novel *Neuromancer* (1984) and has been successfully adopted by the collective imagination. Lévy (1997) defines it as a space, a new context opened up by the communications network produced by the global interconnection of computers. The symbol of this medium is the Internet. His notion of cyberspace includes the enormous quantity of data circulating and the people who use the Internet and foster its growth. Today cyberspace is a new realm of knowledge. Lévy uses the word cyberculture to mean the set of material and intellectual techniques, practices, attitudes, ways of thinking and values that are expressed and developed in cyberspace. Cyberculture is an enormous problem seeking solutions to constantly changing situations caused by technical developments and collective reactions. Lévy's research, in the period mentioned above, includes six features—which represent also six questions—of the phenomenon which will be described individually below.

The six questions in Lévy's work are: (1) Is there a fear of a new kind of colonization? (2) Does cyberculture encourage exclusion? (3) Is there the

possibility of creating a direct democracy of the masses? (4) How does the transition from a passive reception of communication to an active reception change the content of the information and communication in a society? (5) Is linguistic and cultural diversity threatened in cyberspace? (6) Is cyberculture perhaps a synonym for chaos and confusion? The first of these questions is the fear of a new kind of colonization especially by the United States which is also the creator of these technologies. For example, most discussions and doubts circle around the setting up of data banks: who should insert the data, and which data are important. The worries focus on what information should be made available to everybody, what should be made available partially or not at all, and what kind of expert should be assigned to this task.

The second issue concerns a predictable rise in social inequality, with almost exclusive access by the *élite*. On the one hand, the answers to Lévy's question—does cyberculture encourage exclusion?—refer to the importance of significant economic investments in infrastructure and computers, thus denying parts of the world and groups of people access to cyberspace. While on the other hand the answers reflect the political dimension of institutional, political and cultural resistance to using forms of collective, transnational and interactive communication. Despite the optimistic forecast, due to decreasing costs and the increasing numbers of countries interconnected in different places and cultures, Lévy confirms that any new technological progress brings with it the inevitable exclusion of some. One of the objectives to aim for is the creation of that “collective intelligence” (Lévy 1999), which would increase the value of culture, foster competences, resources, local projects, collegial participation and the fight against inequality. Moreover, the danger of creating new forms of dependence linked to commercial usage and economic and political predominance with regards to the less favoured regions is to be avoided (Lévy 1997).

Access for everyone gave rise to widespread and shared expectations—which lay between the past and the present: Lévy wondered whether it was possible to create a direct democracy of the masses. The myth of equality was based on the public and social potential of communications technology in the political sphere. A virtual *agorà*: where the creation of a collective consciousness and pluralist discussions would give rise to a large scale direct democracy. Decisions would be taken collectively and evaluation would be tailored to the communities that participated. Wolton (1999) criticised these optimistic expectations and based his comments on the fact that without social integration and shared values there could be no direct democracy.

Lévy's approach to another issue—understanding the consequences of the transition from a passive reception of communication—TV, radio, cinema—to an active reception—the web, Internet was completely different and raised further question: How does this change the content of the information and communication in a society? First and foremost, the subject wielding the power over the information changes: as opposed to the mass media which use a system of ‘from a few to many’, Internet users exchange information on the basis of ‘many to many’. People, no longer isolated thanks also to virtual communities, activated this new way of

creating long-distance interpersonal links on the basis of sharing common interests. This innovation of the communication system would lead to a deeper understanding between cultures through virtual encounters with the possibility of gaining greater insight. The rapidity of communicative exchanges in time and space, made possible by the availability of the web everywhere, would lead to an understanding of the systems of symbols, values and politics, religions and philosophies of others. This was an error of judgement which did not foresee any other possible solution, such as, for example, the greater visibility of otherness and its rejection (Wolton 1999). When analysing theoretically the features of the artificial information contained in any linguistic message, it becomes clear that this new society is not at all a society of reciprocal understanding. This excessive communication is too often a symptom of self-expression rather than the desire to really step into the shoes of another person.

Another issue, summarized in Lévy's fifth question—Is linguistic and cultural diversity threatened in cyberspace?—gave rise to further debate. The use of English as the favoured language on the web is a limit for non-English speakers. On the other hand English acts as a mediator in international exchanges. Nevertheless, information had already appeared in hundreds of other languages. As successive developments show, even the technical problems linked to the use of non-Roman alphabets, and non alphabetic script have been solved. The participation of the individual determines what appears on the web, thus it is of utmost importance that people from different linguistic groups, especially those of 'minority' languages, should intervene and keep these languages alive in the virtual world.

In his last question Lévy asks whether cyberculture is perhaps a synonym for chaos and confusion. Cyberculture was considered the system of systems and, therefore, the system of chaos. He interpreted the phenomenon as a disappearance of selection, of hierarchies and of the structures of knowledge that were immutable and addressed to everybody.

The innovative feature of the web is its use as an instrument of communication among individuals which ensures that the community can teach its members what they want to know. Lévy concludes and maintains that the construction of a personal intelligence, fruit of individual effort and the necessary time to learn it, is inevitable. It is not difficult to see even today that the image of the web is chaotic. The setting up of netiquette marks a first initiative to control the lack of discipline on the Internet. Netiquette is the guide to the Internet, which introduces norms that govern issues of legality and good behaviour on the web.

This brief discussion of Lévy's six questions and his future proposals concerning the changes in the cultures only partially reflects the research taking place at the time but is certainly enlightening for today. It is clear that cultural models in the Western world have undergone great changes. Every society elaborates codes of communication that are considered essential for the transmission of knowledge and interpersonal and intercultural encounters—just think of oral, written, non verbal and visual communication. Communication is a kind of reflection of society; in fact every language manages to express all the culture devised by a group of people. Today more than ever, these technological changes must make us aware of the

importance of existing cultural diversity in the European context, its richness and the history that links different countries. It is easier to focus on what individuals and cultures have in common rather than deal with the complexity of their differences.

Although new technologies appear to favour proximity among human beings, in fact the opposite effect is true and much more deceptive. This is why it is so important to be aware of the fact that the differences in the content of knowledge and the actions springing from it, exist beyond the shared use of the communication codes used on the web. This is because behind the software and the hardware there are human beings who decide what a programme should or should not do. Their choices are guided by their personal interests and aims, and their own cultural and emotional experiences. This means that surfing the web is not a neutral or objective experience, but is the result of decisions made by someone who knows how to exploit the expectations of the moment, who means to obtain some economic profit from this activity and who maintains control of the information.

Thus digital technology does not eliminate the inevitable acquisition of a cultural model which gives you the perception of belonging to a society or a real community. It accompanies the latter and modifies it by transforming knowledge, interpersonal relationships and behaviour which apparently connect young people today. Digital technologies are similar round the world but fortunately encounter a diversified cognitive world in the different localities. The local culture acquires the new technologies, re-works them to make them acceptable to the existing culture in that community and sends them back to the global level in a continuous exchange of intercultural influences and in constant transformation. A little like the wearing of jeans: everybody, 'primitive people' and rich Westerners alike, wear them, but the individual wearing them expresses values, concepts, ethics, norms, religious beliefs and images learnt from his own group which differ greatly from all other groups.

The chapter continues with the discussion of cultural changes that have occurred to date because some categories today have become more evident or have changed: they are influencing people's perception of the world stimulated by the use of the web and the Internet. Categories involving more personal attitudes to a 'digital native' will be dealt with in the final part concerning proposal for the future.

The following categories—space-time; values; veracity; transparency; creativity and imagination—involve more general cultural context and will be dealt with below. The space-time category has undergone great changes. Space plays a significant role in all societies, as human beings, always and everywhere, modify the natural environment and transform it into a local cultural environment. Locality reflects the creative solutions that the inhabitants of a particular space have adopted to deal with problems of survival. This process has some implications of power as, for example, in the relationship between the centre and the periphery of the world, of a nation or of a city. Digital technology has made it possible to re-position the two concepts: peripheral places can now influence the centre, make the world aware of their existence. There are two active processes concerning space on the web: deterritorialization and decontextualization. The former implies the knocking down of borders, nomadic movement, going beyond the sense of place and living anywhere in cyberspace. This reminds us also that every local context is really a

temporary form of passage that embraces linguistic experiences and life-styles that vary in the course of time. Decontextualization, the absence or lack of importance of reference points of communication, goes hand in hand with deterritorialization.

In a situation of communication the cultural and temporal context cannot be disregarded because it influences the meaning and enables a correct interpretation of the information. On a general level, even the construction of a local identity and the recognition of otherness needs to be contextualized, to be considered consciously. When space loses its physical nature and changes into a conceptual space it becomes ubiquitous, thanks to new technological devices, and the instantaneous links which cancel the perception of spatial distance. Digital technology connects any point in the world with another and at the same time information can be retrieved from any point in the world in real time so that the traditional spatial-temporal parameters are made obsolete by the global dimension and instant nature of communication on the web.

Traditionally the perception of time is shared by all members of a real community but is at the same time linked to subjective experience. Today, the most significant features of the perception and organization of time in Western online and offline contemporaneity are: the perception of accelerated time and the present lived as if it were a continuous moment which cancels the past and the future; people surf in a present without end. There are no intervals of solitude, silence, or isolation dedicated to reflection and imagination and no opportunity to evaluate the seriousness of a problem and create a hierarchy of priorities. Contrary to what was maintained at the beginning of this technological adventure (you will have more free time . . .) everyday life shows that all of us are always in a hurry, that there is no time.

Also the role played by values in real life, in the virtual sphere and in the education for a future for everyone is changing. As shown by Gardner (2012), a psychologist who works with minds and the cognitive abilities required for the future, in his book *Truth, Beauty, and Goodness Reframed. Educating for the Virtues in the Twenty-first Century*. We must re-educate young people to the values. At this point, we must deal with Lévy's (1997) last question—whether cyberculture breaks with the values of European modernity? This gives the philosopher the opportunity to reply that cyberculture pursues and realizes the progressive ideals of the eighteenth century, which sustained the emancipation of human beings, participation in debate and discussion groups, exchange of information and believed in three values: liberty, equality and fraternity. Despite this continuity, Lévy highlights his expectations of a radical renewal of political and social thought in Europe, a renewal which has not taken place yet.

Another important change in attitude to online communication concern the veracity of information. Internet users do not set great store by truth; do not check or cite the source of information. The very fact that the information appears on the web automatically seems to confer authority on the information and the user can take possession of it with impunity. This lack of discernment, which should differentiate between credible, official or institutional sources and sources such as paedophiles, terrorists, criminals and manipulators, is dangerous. The initial

conviction that the instant distribution of news in all parts of the world would guarantee transparency has faded. Nevertheless, nobody doubts that the goal of transparency and veracity will be reached in the next decades. The main problem is: how will it be achieved? According to Wolton (1999), transparency is impossible as social relationships are never transparent and technical bureaucracy must be added to human bureaucracy, both with their own hierarchies.

Two further categories, creativity and imagination, have undergone great changes on the web. The perception of an image, an element of imagination, is based on the personal history and values of the individual and the new technologies offer an incredible number of incentives and new instruments to give vent to one's imagination and creativity, especially the latest app. However, there are limits to this process set by the specific structure of the application and the codes invented by the designer of the product.

In conclusion: the general characteristics of essential cultural change is being able to do things that were not possible before: the instant circulation of information; the uninterrupted 24-h link with people or software all over the world; the personal presentation of yourself and your own creativity and imagination; the knocking down of real borders; the transnational nature of the circulation of ideas and instruments ever smaller, more powerful and lighter laptops, smart phones, iPods, iPads, tablets, wearable technology etc.—no longer only 'many to many' communication but also 'always-on'. Today communication via the computer occurs in real time, is reciprocal, interactive and non-stop.

2 Some Considerations Concerning 'Digital Natives'

The term 'digital natives' (Prensky 2001) is applied to people born after 1980–1990 when social digital technologies came online. They are young people who have access to networked digital technologies. The use of those technologies have also changed the way they think and process information. An in-depth analysis of the 'digital native' makes it possible to link up with things said at the beginning.

One of the main tasks that awaits anthropological cultural research is that of reflecting on the cultural changes that have been produced by the new technological changes in our society. And make young people aware of the limits of technology into which they place a great part of their lives. Such changes need an educational or, in a broader sense, formative model, which acknowledges the new ways of learning and communicating of the young of the 'app generation' and the social networks. The features of the new media—speed, accessibility, easy acquisition, transfer and transformation of information, possible anonymity, and multiple identity—cannot be ignored especially due to their problematic aspects mentioned above.

This chapter targets these young people who are the focus of European research projects which provide us with a general profile of this generation and cannot ignore the changes in the wider social context discussed above and the positive online experience. Some of the questionable characteristics of a 'digital native' are:

identity problems; narcissism and self-promotion; difficult local/global relation; growing individualism; reluctance to accept responsibility and risk; distorted perception of time. Above all we cannot ignore the great transformation of the web which from information supplier, with web 2.0 has become a social space, highlighting the constant search for social encounters, and contacts like 'anytime anywhere', 'many to many', 'peer to peer' which favour encounters, friendships and virtual and real comparisons.

The research undertaken by Gardner and Davis (2013) offers us an interesting viewpoint on the learning process of young people today and their limits. By analysing the consequences of the general and invasive use of app in everyday life, what does living in a 'world of apps' really mean for the future of our species and our planet? the authors ask themselves. Apps are procedures that allow the user to obtain a result rapidly and pleasantly. However, they have effects that may turn out to be negative, because the invasion of a person's everyday life by apps favours the construction of a worldview based on their codes. They are 'shortcuts' that speed up interaction, simplify them and make them less risky.

From a personal point of view, apps embrace a set of interests, habits and relationships that characterize an individual: it is personal identity revealed to the outside. Their general use influences aspects of a personality which tends to take on the form of a "tailor-made self" (Gardner and Davis 2014) a positive and directed at self-promotion, which is desirable but distracts the attention from the inner self, the deepest feelings and personal projects. Some specific traits linked to self promotion online are encouraged by the presumed anonymity of the web. For example, you do not show how you really live but only how you appear to live, even if the image is not far from reality. Young people do not really consider their online and offline identities as being very different just as the private and public spheres are not really considered separate.

Another new aspect involves the concept of interculturality: the young are aware of a global outlook but often lack a deeper understanding due to a poor cultural background and, the authors add, they speak globally but act locally. The apps provide them with the opportunity to access experiences outside everyday life, but it is not known how much the young really benefit from them even if the acceptance of otherness has increased. This is an aspect of the "respectful mind" (Gardner 2006) which implies an open attitude towards knowledge and an acceptance of people and things that are culturally different.

The new communication technologies also play a role in giving young people a sense of security as they avoid many risks of real life, such as finding their way in unknown places or dealing face to face with the unexpected reactions of a person. Once again the importance of remaining in constant contact with reality and direct relationships emerges as a reference point for experiencing significant relationships thus going against the trend of increasing isolation and decreasing empathy. Many young Europeans share these characteristics described above and are preparing for a future with many uncertainties.

3 Looking at the Future

As a conclusion to the above considerations it would be useful to ask ourselves what proposals we can make to prepare young people for the future. Technology influences communication because it offers new elements in the creation of imaginary subjects and worlds. They tend to integrate subvert and transform other contextual forms of learning (Appadurai 2013). That is why thinking about the future means selecting and providing knowledge which will be of use to them in the years to come. To this end I would like to highlight some cultural features which, in my opinion, play an important role in the acquisition of awareness, competences and capabilities to tackle the future. These features, which intend to provide young Europeans with the necessary instruments, should also feature as relevant aspects in any research on young people in Europe. Amongst others these are: acquiring the awareness of one's local and European identity; learning to think in an intercultural and interdisciplinary manner; acquiring the ability to synthesize; overcome the perception of time as one continuous moment.

The proposal relevant to the relationship between local and global culture focuses on the fact that learning about the cultures of other European countries (and not only) helps one to think about one's own culture. The young use technology to communicate but know little or nothing about the countries that youngsters of their own age live in and are full of stereotypes and prejudices. There is no conscious identity without the encounter of otherness, anthropologists say, especially if one focuses on beliefs, traditions, language, myths, rites, tastes, which on first impact are different from one's own. Getting to know others, reflecting and thinking critically about oneself makes one aware that every person is the expression of a cultural model with its own features which only the encounter with otherness brings into evidence. Student exchange programs, for example, provides a practical situation for experiencing otherness, which makes young people aware of the local dimension of their own culture which is a specific expression of knowledge. In fact, we tend to consider our beliefs, behaviour, habits, physical and emotional expressions, which we share with other members of our society, as 'natural'. They are really the expression of that particular culture which we belong to and differ from those of other cultures. Ethnocentrism, which considers one's own culture as superior, is common to all groups of human beings. This mental attitude is at the root of many incomprehensions, also at the communication level in intercultural meetings and makes negotiation difficult if not impossible.

This means that young people must learn to give priority to an intercultural approach fostered by the discovery and the comparison of the features of two or more cultures. This kind of approach must go hand in hand with an interdisciplinary approach. The latter is not simply meant as bringing different realms of knowledge together but also as a meeting place for different theories and methods to create a new point of view, a new approach to problems not achievable through single disciplines. These two approaches require one to select a particular subject matter (anthropology, literature, history, geography, art, the history of religions, etc.) best based on personal interests. In this way it is possible to carve out a mental path,

which guides the forays into the Internet to find what one is looking for without getting lost and constantly returning to the starting point, and consequently stops a person from feeling overwhelmed by the cognitive incongruence of the situation, the fragmentary and superficial nature that is characteristic of many people who surf the web. I am referring to the “disciplined mind”, one of the five minds Gardner (2006) considers essential for the future, which requires in-depth knowledge of the theories, methods and paradigms of a discipline. The other four minds Gardner specifies are: the “synthesizing, creating, respectful (already mentioned) and ethical” briefly summarized below.

The skill of synthesis, the synthesizing mind is fundamental in overcoming the superficial and fragmentary nature of an unconscious personal technological learning process, which favours non-knowledge; without taking anything away from the positive effects of the new technologies and the web 2.0 world, as for example, a greater acceptance of diversity (ethnic, sexual, cultural). Furthermore, synthesis requires greater detail and slow memorization which implies the perception of the difference between quality and the quantity of the data. The latter are characteristics, for example, of multitasking, when people work on various communication fronts at the same time. Once again technology favours the quantity and speed of the passage between different technological supports, but the information that comes into play is superficial to the detriment of quality and analytical correctness.

One important effect of the total immersion in the web is to upset one’s perception of time which is one of the revolutionary changes of information technology. Art and literature, for example, are fitness to the existing relationship between time and contemporaneity. In Augé’s analysis (2015) the latter in particular, is seen as the taking on of the past and the future of the different generations. Behavioural and social sciences, art and literature today have to rise to the same challenge of a world which perceives time as accelerated and sees the present as one continuous, never-ending moment. The trend is to live in one endless moment, an immediate present that cancels the dimensions of the past and thus also precludes the future.

According to Gardner (2006) the ethical and creating minds complete the wealth of intelligence he considers fundamental for the future. They are fundamental as they include the dimension of values. The ethical mind allows a person to reflect on the principal features of the role they play at any particular moment of their life. This is essential as it means that they can recognise the responsibilities inherent in this role and the consequent morally correct behaviour. The creating mind is the most developed in the technological world with particular and endless references to the artistic-literary environment.

Any research attempting to understand a society and foresee its changes in the future must take place in a cultural anthropological context as indicated at the beginning of this chapter. It provides a flexible network of interconnections between the different realms of knowledge that characterize all groups of human beings. That is why it cannot be ignored when analysing the great cultural and technological changes involving all human beings all over the world. Cultural

anthropology provides the methodology for a comparison between different European cultures (and not only) and to analyse cultural changes, wherever these occur. It also provides the opportunity to draw people closer to 'indigenous' cultural products, especially, all artistic expressions. They favour comparisons and the crossing of the borders of local cultures, they make it possible to participate in global creativity starting from taking pride in one's own origin. New technologies, if used properly can help this process and open one's mind to the meeting with expressions of knowledge conceived by other human beings.

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Interdisciplinary Collaborations in the Creation of Digital Dance and Performance: A Critical Examination

Sarah Whatley and Amalia G. Sabiescu

Abstract

This chapter explores the convergence between performance-based cultural heritage and new technologies, with a focus on interdisciplinary collaborations in creation and making processes. These interdisciplinary work spaces present a tremendous potential for innovative art making, as they bring together deep knowledge of the arts and artistic sensibility with a sound understanding of technology languages and possibilities. At the same time, being situated at the confluence of different fields of practice and research dwelling on diverse epistemologies and approaches, interdisciplinary collaborations do more than configure new ways of making art: they contribute to synergies between arts and technology fields, marking places of cross-fertilisation, blurring boundaries and influencing their evolution. Through a close analysis of interdisciplinary undertakings in making digital performance, we show how creative work in mixed teams of performance artists, researchers and practitioners on the one hand, and researchers from technology and design-focused disciplines on the other, is instrumental to the development of what we call ‘interdisciplinary artsapes’ and ‘interdisciplinary knowledgescapes’. These spaces offer a fertile ground for creative initiatives and knowledge advancement drawing on integrated perspectives, theories, methodologies and approaches from arts and technology fields. Together, interdisciplinary artsapes and interdisciplinary knowledgescapes contribute to opening up and pushing the boundaries of thinking and art making, reconsidering taken for granted assumptions and coming up with radically new art forms.

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K.J. Borowiecki et al. (eds.), *Cultural Heritage in a Changing World*,

DOI 10.1007/978-3-319-29544-2_2

1 Introduction

Performance as cultural practice and performance studies have always been positioned in complex interrelationships with other disciplines. As Dwight Conquergood argues, “(p)erformance studies is uniquely suited for the challenge of braiding together disparate and stratified ways of knowing” (Conquergood 2002: 152). Performance has a multidisciplinary appeal, both as an invitation to study performative acts through the lens of disciplines ranging from history to anthropology, and reversely, lending its own perspectives and paradigms to shed light on processes and phenomena in different fields of study (Madison and Hamera 2005).

This chapter explores the convergence between performance-based cultural heritage and new technologies, with a focus on interdisciplinary collaborations in creation and making processes. Starting from the second half of the twentieth century, when some of the first experiments using computers in performance making were initiated, digital technologies have been employed in different ways to assist, enhance, or completely re-configure the artistic creative process. Artists including choreographers have used digital technologies as choreographic tools, shared working spaces, experimental playgrounds, or have embraced computing languages more broadly to approach their art making, envisaging their artistic work in computational and algorithmic terms. Some of the most innovative creative practices continue to come from interdisciplinary collaborations between performance artists, choreographers, computer scientists, and media artists. These interdisciplinary work spaces present a tremendous potential for innovative art making, as they bring together deep knowledge of the arts and artistic sensibility with a sound understanding of technology languages and possibilities. At the same time, being situated at the confluence of different fields of practice and research dwelling on different epistemologies and approaches, interdisciplinary collaborations do more than configure new ways of making art: they contribute to synergies between arts and technology fields, marking places of cross-fertilisation, blurring boundaries and influencing their mutual evolution.

The chapter offers a critical examination of interdisciplinary collaborations in performance making to shed light on how they are instrumental both for artistic innovation and for fostering knowledge production within and across disciplines. It starts by describing performance and the theorisation of performance as an integrative space, where insights, knowledge, perspectives and approaches from different disciplines can be adopted and employed to enrich understanding of performance acts as well as innovating the art form. This quality of integration is likewise the characteristic feature of interdisciplinarity: ‘making whole’ by weaving together insights and approaches from different disciplines. We show how interdisciplinary undertakings in performance have a dual edge, blending creative acts and knowledge advancement. Through a close analysis of such undertakings in making digital performance, with a particular focus on dance, we demonstrate how creative work in mixed teams of performance artists, researchers and practitioners on the one hand, and researchers from technology and design-focused disciplines on the other, is instrumental to the development of interdisciplinary artscapes and

interdisciplinary knowledgescapes: spaces that offer a fertile ground for creative initiatives and knowledge advancement drawing on integrated perspectives, theories, methodologies and approaches from arts and technology fields. Together, interdisciplinary artsapes and interdisciplinary knowledgescapes contribute to opening up and pushing the boundaries of thinking and art making, reconsidering taken for granted assumptions and coming up with radically new art forms.

2 Performance as an Integrative Space

Performance is a contested concept, one which has been described from multiple and often conflicting viewpoints (Strine et al. 1990). Historically, it has been categorised variously under the headings of entertainment, show making, a leisure activity, but also as a fundamental cultural activity, one which embodies and expresses worldviews, values and intangible cultural assets that represent group, community and national identities (Madison and Hamera 2005). In this chapter, we look at performance as both a cultural practice and a disciplinary field of research. Performance as ‘cultural practice’ refers to the cultural rooting of human action or behaviour that is conceived and presented as a performative act. A performance is the expression of ways of knowing, being and cultural identities, and as such it is a window on to and a means of understanding “how human beings fundamentally make culture, affect power, and reinvent their ways of being in the world” (Madison and Hamera 2005: xii). As Schechner (2013) argues, there is basically no limit to what can be considered a performative act, as long as a human activity is “framed, presented, highlighted, or displayed” as such (p. 3). This situates performance across a wide spectrum of human activities and behaviours, ranging from ritual and play to performing arts such as dance and music (Schechner 2013). The focus in this chapter is on performing arts and particularly dance and body-based performance. These forms of performance are also those that most intensely embody and express human culture, as anthropologist Victor Turner notes:

Cultures are most fully expressed in and made conscious of themselves in their ritual and theatrical performances. . . . A performance is a dialectic of “flow”, that is, spontaneous movement in which action and awareness are one, and “reflexivity”, in which the central meanings, values and goals of a culture are seen “in action”, as they shape and explain behavior. A performance is declarative of our shared humanity, yet it utters the uniqueness of particular cultures. We will know one another better by entering one another’s performances and learning their grammars and vocabularies. (Turner 1990: 1)

Performance studies focuses on the study of performance adopting lenses, theories, approaches and methods from a wide range of disciplines, from performing arts to sociology, anthropology, cultural studies and history. At the core of performance studies is the tight relation between practice and research. Many scholars in performance studies are or have been engaged in some kind of performative practice or are experts in specific forms of performance. An action-oriented perspective is also what characterises investigative approaches in performance studies, where: “whatever is being studied is regarded as practices, events, and behaviors, not as ‘objects’ or ‘things’” (Schechner 2013: 3). This confers upon

performance a “quality of ‘liveness’” (Schechner 2013) which makes it appealing for scholars in other disciplines who can adopt a performance studies stance or approach to make sense of subjects and objects of research in their own disciplines. To these scholars, performance offers a lens to understand cultural acts, meaning, language, and human behaviour as performances (Madison and Hamera 2005; Schechner 2013).

Performance studies stands out in the academia for its key capacity for integration. This can be seen two ways. Firstly, performance scholars find it easy to borrow and seamlessly employ lenses, perspectives, approaches and theories from other disciplines and integrate them in their object of study. The strong interrelationship with other disciplines is at the heart of performance studies. Performance studies is most active and rich in connections and associations with other disciplines, it is fluid and dynamic, and continues to expand by exploiting interdisciplinary interfaces (Schechner 2013). As Conquergood writes:

The ongoing challenge of performance studies is to refuse and supercede this deeply entrenched division of labor, apartheid of knowledges, that plays out inside the academy as the difference between thinking and doing, interpreting and making, conceptualizing and creating. The division of labor between theory and practice, abstraction and embodiment, is an arbitrary and rigged choice (Conquergood 2002: 153).

Second, performance studies is integrative in its epistemological foundations and premises. Quite uniquely among academic disciplines, performance studies departs from Aristotelian and Cartesian paradigms by its refusal to divorce the mind and the body, the psychological and the somatic in its scientific pursuits. This epistemological stance is particularly vibrant in dance and body-based performance. Dancers’ thought processes are intricately bound to a psycho-somatic whole (deLahunta and Zuniga Shaw 2006, 2008). Dancers think through their bodies and can develop and transmit knowledge through gesture and movement. ‘Kinaesthetic intelligence’, ‘physical thinking’ are concepts often adopted in dance making practice (deLahunta and Zuniga Shaw 2006). Performance has its own language, which is expressed in movement and thought and words in a space of vibrant liveness and presence:

As performers you are looking for an ‘action language’: one you can spontaneously ‘speak’.
 ...So you need to think by performing, instead of trying to complete your thinking prior to the performance (Howell 1999: 46).

The flexibility and openness of performance studies makes it uniquely suited for interdisciplinary work. At the same time, its epistemological premises and knowledge-building approaches distinguish it from other disciplines and can raise barriers to productive interdisciplinary dialogue. Performance studies brings to the table a unique way of thinking and meaning making, languages and vocabularies that can be new, obscure or difficult to grasp when seen from the perspective of other disciplines. In the next sections, we examine the premises for interdisciplinary creative practice for digital dance and performance, how it differs from interdisciplinary practice focused uniquely on knowledge building, and raise attention to the importance of duly acknowledging the dynamic interplay between art making and knowledge advancement.

3 The Creative Process for Digital Dance and Performance

The creative process in dance and performance making implies that an idea or a concept is explored creatively. A central creative concept guides choices with respect to movement, performers' exploration of space, the design of costumes, scenic elements, lighting and their evolution in the temporal flow of the performance. Performance creation and production can be described as a 'generative dialogue' between different elements that drive representation and meaning, from movement and lighting to costumes, props and soundscapes (Latulipe et al. 2011). This is a complex and non-linear process in which options and decisions are assessed, taken or refuted until reaching a satisfactory vision. Choreographic thinking underpins rehearsals and devising processes. Ideas are explored and tried out, and changes are brought in a cyclical process to adjust and refine. Handling this complexity requires not only a sense of artistic vision, but also a firm grasp of multiple layers of knowledge covering different aspects of the performance ecology. Even for traditional performances, these knowledges are oftentimes distributed among different individuals who bring their share in the creation and production process. Yet in traditional performances this distributed knowledge ecology is used seamlessly for creative endeavours in a manner which does not reflect the tensions and clashes characteristic of interdisciplinary work. This seamless integration is facilitated by a clear sense of purpose, specific roles and a mutually understood and often taken for granted frame of reference, one which has been established throughout many years of creative practice. For instance, in the Western tradition, the focus of dance performances is on the dancers and their bodily movements as they explore and inhabit the scenic space. Likewise, the creative process is patterned on envisioning and configuring the exploration of space through movement, focusing on the dancers.

With the introduction of digital and interactive technologies, this established process opens up to change. We focus on digital dance and performance in which digital technologies have a pivotal, rather than peripheral role. Examples include virtual reality performances, telematic and distributed performances, online performances, performances which integrate projections, sensing and interactive technologies. Of special interest for our examination are interactive performances, referring broadly to the quality of affording live interaction in the performative space through the mediation of digital technology. The pinnacle of complex interdisciplinary work is interactive performance in which technologies (such as camera tracking and sensor technologies) are used to control or trigger performance components, for instance works where dancers' movements are tracked and generate media projections or sounds in real time (Birringer 2003).

The shifts in the creative process for digital performances are analogous to a changing frame of reference for creative acts. The integration of technology affects the ecosystem in which the performer acts so that spatial connections are reconfigured and, depending on the complexity of the performance, the way bodies and space interact changes fundamentally. Making fairly complex interactive performances requires, therefore, a focus shift from the performer to the

environment in which the piece is performed, on how the performer relates, reacts to and interacts with technology and the space. We can imagine, for instance, how a traditional dance piece where dancers perform patterned movements exploring the scenic space contrasts with an interactive performance where the movements of the dancers activate sensors which then deliver inputs to trigger soundscapes and digital projections on a screen, in real time. In the first case, the choreographic process focuses on the dancer and sequences of movements and gestures. Lighting, costumes, soundscapes are important elements in the performance ecology, yet decisions regarding their appearance, design and flow throughout the performance are taken to complement the dancers, which are central actors. In an interactive performance with sensing technology, on the other hand, technology becomes one of the principal actors, and the interaction between the dancer and the technology is the main driver of action, audio-visual information and meaning. As Johannes Birringer points out:

Addressing ‘interaction’ as a spatial and architectural concept for performance, therefore, means shifting the emphasis away from the creation of steps, phrases, ‘combinations’ or points on the body that initiate movement, away from the dancer’s internal bodily awareness (widely encouraged in today’s practices of yoga, somatics, experiential anatomy, body-mind centering and release techniques) unto her environment, to a not-given space but a constructed, shifting relational architecture that influences her and that she shapes or that in turn shapes her (Birringer 2003: 90).

This implies embracing a novel paradigm for making dance, away from choreography focused on the movements of the performer towards what Johannes Birringer calls “a relational performance architecture” which moves choreographic thinking into “a plastic process of ‘designing’ fluid space and responding to transformative space that allows for integration of ‘nervous’ or sensitive media presences” (2003: 90). The composition process itself is dynamic and evolving, mirroring the emergent nature of the final piece to be developed. Moreover, this process inaugurates a need to access new and complex knowledge about technology, technology design and the interaction paradigms afforded by the technology integration in the scenic space. As performance making becomes entangled with intricate design and engineering processes for designing, testing and integrating seamlessly digital interfaces, interactive systems, and programmed sensors, collaborators develop new vocabularies informed by knowledge of computation capabilities, which can best be advanced by interdisciplinary creative work.

4 Interdisciplinarity in Creative Practice

The literal meaning of ‘interdisciplinary’ is ‘between fields of study’, from the prefix ‘inter’ meaning “between, among, in the midst” and ‘disciplinary’ meaning ‘relating to a particular field of study’” (Stember 1991: 4). The increasing academic interest in interdisciplinarity comes from the necessity to investigate questions or issues that cannot be adequately covered by a single disciplinary lens (Repko 2012), or for studying complex systems whose understanding requires bringing together

diverse analytical perspectives (Newell 2001). An interdisciplinary investigation therefore draws on the outlooks and insights of different disciplines and builds upon them to foster a coherent answer and a comprehensive understanding (Newell 2001; Repko 2012). It is this aspect of integration that distinguishes interdisciplinarity from other investigative approaches that cross the boundaries of a single discipline. Cross-disciplinarity involves the investigation of a phenomenon from the viewpoint and with the tools and approaches of different disciplines, without implying however an integrated approach. One step further, multidisciplinary studies involve scholars from different disciplines working together to achieve a common goal. Their insights and approaches are complementary, without again being necessarily integrated. Interdisciplinarity, on the other hand, refers to a “systematic integration of ideas” (Fiore 2008: 254). Integration, literally “to make whole”, implies that “ideas, data and information, methods, tools, concepts, and/or theories from two or more disciplines are synthesized, connected, or blended” (Repko 2012: 4).

This process of integration is captured in the prefix ‘inter’ and has been interpreted as a three-stage course by Repko (2012):

1. A contested space where issues or problems that cannot be tackled, understood or solved by employing a single disciplinary lens provide the impetus for engaging in interdisciplinary research. The goal is to create something new, whether it is a new theory, a new perspective or a solution to a problem.
2. Acting upon insights, contributions and inputs from various disciplines, in a concurrent, integrative fashion.
3. The result of the integrative process, which can be conceived as an answer, a solution, an intellectual or knowledge advancement.

If interdisciplinary studies focus on the integration of knowledge-related assets and resources, the interdisciplinary work process in the creation of digital dance and performance has a different dynamics, one in which knowledge advancement shadows, supports and uplifts artistic work. We can more closely examine this dynamic by looking further at the three stages outlined above. In the first stage that Repko (2012) identifies, the impetus for collaborative work in interdisciplinary studies can come from the drive to engage with exploring a contested space, find a solution or simply create something new which requires the joint input of people and resources from diverse disciplines. For creative practice, the creation of something new has primacy. Whatever form novelty takes, some instance of knowledge is always involved to make it happen. Some projects may specifically mention knowledge advancement as a specific project goal, along with artistic production. Yet, even when collaborations are uniquely aimed towards art making, knowledge is a pre-requisite, an indispensable ingredient for supporting the foundation of a space of creative possibility. The creative goal and the associated knowledge required further dictates the composition of the teams and the kind of expertise, tools and resources required.

In the second stage, insights from different disciplines are brought together contributing to the creation of the envisaged outcome. In interdisciplinary studies,

the dynamics of integration plays out around knowledge, tools and resources elicited from the diverse disciplinary traditions involved. In creative practice, the centrality of the creative act pushes knowledge into a subsidiary, yet not least important role. Integration in creative practice therefore refers to blending, braiding or bringing together knowledge, tools, and resources from diverse disciplines to the service of a creative idea. This stage is the crux of the collaborative process and will be examined more closely in the forthcoming section.

In the last stage, outputs are produced. Depending on the goals pursued, these can include finite performances, concepts, ideas, technical tools and systems, choreographic software, but also knowledge, new perspectives and theories. Of particular interest is how these outputs serve the advancement of disciplines or configure new interdisciplinary spaces for knowledge pursuit and art creation processes, which will be discussed in the final section.

5 The Integrative Process in the Creation of Digital Performance

This section examines the activities in which interdisciplinary working teams engage, with a focus on ‘the integrative process’: the moments, approaches and timeframes which delimit the interweaving of interdisciplinary insights and inputs until reaching the desired outcomes. Our goal is to understand what forms, strategies and approaches there are for this process, and further to reflect on how these are instrumental to advancing innovation in art as well as knowledge advancement within and across the disciplines involved. We examine this process by looking at cases from our own research and from the literature, and extracting specific instances to illustrate patterns or strategies for creative work. Some cases are focused on the creation of digital dance and performance, some on the design and development of technology-enhanced tools for creativity, annotation and choreography, while others have a more pronounced knowledge-exchange and sharing component.

The creative process for interactive dance and performance is not unlike non-linear technology design processes, in which conception, design, prototyping and testing are iterated until reaching a satisfactory outcome. The cyclical creation and production pattern is characteristic of highly experimental performances in which very little of the final outcome—concept, choreography, technology, interaction, etc.—is predefined. These types of collaborations have an important exploratory component, and may give equal importance to knowledge advancement as to the actual making of the performance work. *Ballettro* is an example of a collaborative project into performance and digital media where the goal was to create a staged performance along with researching the interface between performance and new media. *Ballettro* was a collaboration between the project *Assemblages*, run by InterMedia at the University of Oslo and the Department of Ballet and Dance at the Oslo National College of the Arts. It aimed to advance understanding not only in the field of performance, but also in the field of technology and design studies, and how

dance could advance technology design. The creative approach in *Ballettro* is described as “an experimental, ‘free-form’ approach to building a collage-like choreographic process” (Skjulstad et al. 2002: 221), expansive, emerging and democratic in nature. Most creative sessions included improvisation tasks in which dancers experimented with digital tools. Apart from the dancers, all the participants in the creative process were invited to improvise, and this included the media and technology researchers. Improvisation was not only a means to a creative output, but also a way to exchange knowledge and learn by reflective practice. The final performance collated fragments from experimental sessions and learning tasks, guided by an evolving choreographic vision during the project course. The research was conducted on a cyclical model, including iterative learning tasks, improvisation sessions, and reflexive activities (Skjulstad et al. 2002).

Improvisational and experimental approaches like *Ballettro* treat the collaborative space like an experimental playground. The composition process is emergent and dynamic, following the emergent nature of the final piece to be developed. Learning how to work together is a first and vital component. One powerful practice for supporting mutual learning is collaborative rehearsal. The interdisciplinary team assists the enactment of choreographic ideas and concepts, trying out various interaction patterns until configuring desired directions for the composition. Collaborative rehearsals fulfil a variety of learning and creative goals: they enable trying out choreographic ideas, testing technology, and enabling performers to engage with the interactive spaces that are emerging from the composition. As Johannes Birringer comments:

From a choreographic point of view, the dancer within an interactive environment . . . will need to familiarize herself with the response behaviour of the sound and video parameters, and both dancer and composer will strive to create an exponentially more sensitive, articulate and intuitive system. In a shared environment this could mean refinements in sensors, filters, and output processors, but also an attenuation of the performer’s spatial-temporal consciousness. How is the performer-musician-system relationship evolving, emergent? What can we learn from jazz-improvisational structures, from video game structures, from different cultural contextualizations of virtual environments? (Birringer 2003: 93)

In such improvisational and emergent approaches, roles and spaces of intervention are reconfigured and participants may freely step into the area of expertise of another. As Gonzalez et al. (2012) argue, this is a true instance of an ‘integrated process’, when a choreographer may provide vital input for technology design, and in reverse, when technologists may be asked for an opinion regarding the timing of a dance moment. This asks for a continuous process of negotiation, one in which nothing is pre-defined and established hierarchies and role boundaries are blurred. A phenomenon of contagion occurs, new words, phrases, vocabularies and approaches are appropriated and exchanged. This phenomenon enables the configuration of a space of creative possibility from which ideas, concepts and action lines spring forth.

A closer examination of the integrative process in emergent approaches to performance making opens up questions about the interplay between knowledge

production and creative acts: What kind of knowledge(s) are brought to bear? How do they make their way into creative acts and decisions? How are they shared and what traces do they leave? These aspects are examined by looking at a particularly challenging instance of performance making: working in geographically distant teams to produce a distributed performance.

ULTRAORBISM was a distributed performance designed and developed in the frame of the European project RICHES (Renewal, Innovation and Change: Heritage and European Society), in partnership between the Centre for Dance Research at Coventry University and I2CAT Foundation in Barcelona, with the collaboration of Falmouth University, UK. The aim was to examine, through a real life event, how the integration of digital technology affects performance making, the new expressive means it can afford, and how it changes audience engagement and appreciation of the art form. The performance was a distributed event between Centre d'Art Santa Mònica in Barcelona and Falmouth University, taking place in April 2015.

The concept of the performance was ideated by Marcel·lí Antúnez, a Spanish artist with a rich history of blending performance and interactive technologies. Marcel·lí created a narrative inspired by the travel tale *A true story*, by Lucian of Samosata (125–180 AD), a travelling rhetorician and satirist who wrote in Ancient Greek. The tale is considered the first account of science fiction, featuring a travel to the moon, but it is also a subtle satire denouncing the mix of fact and fiction in the works of contemporary historians. On this basis, Marcel·lí created a dream-like narrative unfolding through a variety of expressive media, partly developed before the show and partly resulting from the interaction between performers and technology in real time.

The space had a similar configuration in the two locations: an open stage featured the live performers, while animation and video were featured on screens. The performance narrative was projected on the central screen, and alternated between pre-loaded animation and the live performative acts from both locations, with Marcel·lí Antúnez performing in Barcelona, while three dancers and a storyteller performed in Falmouth. Performance details were projected on two smaller screens. The audience in each location could see the happenings in the other location through real-time video playback. Part of the concept of the performance was to make everything visible. Therefore the team of technicians was present, as well as the lighting, sound and remote connection equipment.

ULTRAORBISM is an illustrative case of a distributed, loosely centralised creative process. Whilst the piece was based on a concept by Marcel·lí Antúnez, the performance was fine-tuned and produced jointly by the Catalan-English team of engineers and performers, and tried out during collaborative rehearsals. Setting up collaborative rehearsals between different locations was challenging, especially since rehearsals were not only meant to stage ideas, but to configure and standardize them. The issues raised by making everything work on a technical level for linking and communicating between the two locations were heightened by the fact that there was no outside creative director to take decisions and ensure a smooth flow. While Marcel·lí Antúnez was regarded as the central creative mind behind the

project, he was also performing, and could not fill the role of a director, able to see the piece unfolding from the outside. A high degree of freedom to propose ideas and make decisions was therefore entrusted to each member of the team. At the same time, the freedom and the lack of hierarchy was demanding, especially for performers, on several levels. Even for decisions that regarded contained actions like the duration of pressing a sensor, performers had to be attentive, aware and knowledgeable of the other elements of the performance and how, together, they created meaning. As one dancer remarked in a post-show focus group, “it is all interconnected”: a simple action such as stamping on a sensor affected the ecology of the performance. Moreover, there was also a lack of hierarchy with respect to the various media and expressive components from movement to lighting and projections that together created and communicated meaning. As a dancer pointed out:

What is more important? Is it more important that we are connected so that everyone watching, even if they're separate from us, they feel this united front-right in front of them? Is it more important that we connect to Marcel·lí? Is it more important that we connect to the audience? . . . A thousand times we came to a point where we [felt] like we could go down any of these roads and at some point someone has to make a decision (Excerpt from focus group with the ULTRAORBISM Falmouth-based team, 9/04/2015, RICHES project archives).

One of the first aspects of interdisciplinarity to examine in ULTRAORBISM regards the nature and the trajectories of the knowledge elicited throughout the creation and production continuum. Both were configured by the central aim of the project: creating an engaging and immersive distributed performance. Similar to technology design, the artistic creative process can be described as an array of choices dotted on a timeline, which continuously open and close the space of creative or design possibility. In design, these decisions can be called ‘framing judgements’, choices that continuously open and close, define and redefine “the space of potential design outcomes” (Nelson and Stolterman 2012: 199). These judgements apply to different components of the product or system to be designed, yet eventually they take effect in configuring the product or system as a whole. Analogously, in interactive performances such as ULTRAORBISM, framing judgements are made that regard specific components of the performance, from movement and the timing of movement phrases to technology interaction and lighting; yet these judgements ultimately affect the performance as a whole. Each framing judgement requires a particular knowledge instance, which can be prompted individually or jointly by different members of the team. Knowledge may be verbalised and shared but, especially for performers, it is often tacit, embodied, or so deeply blended with an impulse to act that it is difficult to separate and share. The process of integration at the creative level only requires a portion of this knowledge to be made explicit and shared among the team. For instance, a dancer may sense rather than mentally formulate the exact moment when she should step away from the sensor to keep the harmony in the collective performative act. If the creative goals for the piece are reached through rehearsals, then an explanation of the thinking underpinning the timing and the decision are not

necessary. Countless decisions such as these are taken during rehearsals—sensed rather than verbalised, and enacted almost at the same time with being thought. If, on the other hand there is a concern with learning and knowledge advancement, then knowledge sharing becomes significant. Instances of tacit knowledge have to be converted in forms that other members of the team can comprehend, while actions and sequences performed spontaneously need to be examined to understand their meaning and significance.

Furthermore, the issue of knowledge traces is significant when considering the legacy of these encounters beyond the lifetime of a project. When used in the service of creative acts, both tacit and explicit knowledge instances have a quality of immediacy, and can be just as ephemeral as the performative act. They are brought into being through experimentation, and may quickly find their way into informing and driving decisions that spur further experimentation until reaching desired forms. Unless purposefully documented, knowledge instances at most echo in the memory of participants, but leave no tangible trace. If the purpose is to encourage joint production and transfer of knowledge among disciplines beyond time-based encounters, then it becomes paramount to document interdisciplinary creative processes. The traces or creative resources resulting from documentation processes are generative, they can be disseminated to inform and inspire future creative and research practice (deLahunta and Zuniga Shaw 2006: 54).

Emergent approaches to making interactive performances can become particularly vital spaces for fostering innovation. Firstly, they foster innovation in the art form, for their capacity to challenge, question and redefine established conventions regarding movement, body, digital media and their interplay. Secondly, they stimulate the production and circulation of knowledge across disciplinary boundaries. By working, experimenting and creating together new perspectives open, and new ways to employ theories, approaches and methodologies come forth. However, to build towards these outcomes, it is necessary to purposefully cultivate knowledge production and sharing along the creative continuum in interdisciplinary practice. In these settings, techniques for knowledge conversion (see for instance Nonaka et al. 2000) and reflection on practice (see Schon 1983) are important for enabling participants to share what they experience and know in tacit ways, and to understand the experience of others. Moreover, documentation of creative practice is important for spreading these knowledges beyond the lifetime of projects and events.

Interdisciplinary collaborations are not restricted to making new performances. A format which recognizes the value of bringing together interdisciplinary experts in performance, dance, media arts and technology design is that of short-term exchange projects, creative and knowledge-exchange workshops and peer to peer labs. These can be called upon to share ideas, reflect upon practice, share works in progress, and devise new concepts and approaches. An early example is the project *Software for Dancers* (London, 2001), funded by the Arts Council of England and organised with the support of Sadler's Wells and Random Dance Company based in London. The project brought together four choreographers and four digital artists with programming skills to generate ideas and concepts for rehearsal tools that

could aid in the choreographic practice. The choreographers who took part were Siobhan Davies, Wayne McGregor, Shobana Jeyasingh and Ashley Page. The project used these encounters as an occasion to envisage creative ideas for choreographic tools, but also to examine computational and choreographic approaches to art making, and the importance of understanding the nature of the materials and structures that are integrated and transformed in these processes. The format involved open sessions of discussion, followed by a closer examination of the methods commonly employed by choreographers in their work. Proposals were therefore developed on the concept of a multimedia notebook as a rehearsal tool, and ideas explored the possibility to use the computer as a generative source for choreographic inspiration. Yet the value of the project was less in the outcomes and more in the occasion for interaction and exchange that it provided. The discussions opened up questions about the choreography, the nature of software and code, and how the computer can assist choreographic practice. What are its promises and what its limits?

More recently, the *Choreographic Coding Labs* (CCLs), initiated in Frankfurt in 2013 and now toured internationally invite creative coders with an interest in movement and choreography to work with dance-related datasets and examine choreographic approaches and structures to advance and innovate their artistic practice. The first CCL was developed through Motion Bank, a 4-year project of the Forsythe Company. The CCLs are invitations to experiment, exchange knowledge and explore new ideas in a stimulating collaborative environment, without aiming for tangible outputs. Despite this open format, outputs are usually produced, ranging from tools for measuring movement qualities to concepts and prototypes for artworks. Some participants come in with works in progress or that they would like to refine, and use the CCL space as an occasion for inspiration and intensive work in a creative atmosphere. A software which grew out of the CCLs and continues to be shaped and refined throughout new editions is PieceMeta, a data management system which enables storing and looping data captured from movement.

The characteristic feature of the CCLs is the peer to peer format, which encourages horizontal learning and exchanges between people who blend technology and arts-related backgrounds and interests. Another aspect is the intensive and concentrated work format. Participants have the chance to explore ideas throughout 5 days against insights and feedback from like-minded peers. Interruptions are occasions for either socialisation or creative input and inspiration. Choreographers and dancers are invited to come and present their work, share their ideas, and be available for questions and discussions. The CCL stands out as a format for dance-related interdisciplinary exchange and creative practice for its focus on the existing community of creative coders. Participants already possess mixed backgrounds and interests at the junction of arts and computing. Through exposure to dance and choreographic material, new approaches, methods, ideas and ways of thinking cross the arts to the technology domain. As one of the CCL coordinators comments in an interview:

The CCLs are consistent with my own interest in bringing a high level of dance practice in conjunction with high level digital media arts practice. And my interest is in bringing them together, not necessarily that they make art together, so the choreographers who come and give a talk, they are not there to collaborate with the digital media artists, the goal is not to produce collaborative artwork, necessarily. I mean, collaborations do emerge out of the project, the goal is to try to inform the work of the media artists to give them inspiration coming from dance practice (Interview, 12/01/15, RICHES project archives).

6 Interdisciplinary Artscapes, Interdisciplinary Knowledgescapes

Intersections and interactions between digital technology and arts fields have now been going on for well over half a century. Impacts on the field of dance and performing arts are notable, yet, some scholars would argue, these are not taking effect at the same rate as for other arts, such as music. As deLahunta (2002) comments, the convergence between performing arts, particularly dance, and technology can be described as *episodic* or *periodic*, lacking the breadth and intensity to reverberate in remarkable, foundation-shattering impacts. In their being episodic and by engaging a finite number of actors, their impacts are reduced in scale. Yet, we argue, there is more to these interdisciplinary encounters than their tangible, project-bound outcomes. To understand how their impact builds up in time it is useful to look at the process of integration, characteristic of interdisciplinary work, not only at micro, but also at macro-scale. At micro-scale, interdisciplinary research is mostly driven forward by teams of researchers belonging to different disciplines working on common subjects, projects or issues. At macro-scale, when consistent and enduring interdisciplinary work gains critical mass, it can lead to the emergence of new, interdisciplinary constructs, theories, approaches and techniques and eventually lay the foundation of new interdisciplines, solidified by the foundation of new professional roles, academic departments and curricula. This process of integration going from the micro to macro-scale has been described by Klein (1996) with reference to three landmark steps: (1) Detaching a research subject from its disciplinary frameworks; (2) completing the gaps left opened by single discipline investigation; and (3) redefining boundaries and founding new “knowledge spaces and new professional roles” (Klein 1996: 36–37). These are processes happening over a long period of time, and demonstrate the high level of fluidity and dynamism of knowledge advancement through interdisciplinary research. Disciplines are not fixed, they grow and change and influence one another and often redefine their boundaries and hierarchies, such that a new interdiscipline can become in time a well established discipline in its own right (Repko 2012).

The process of integration happens simultaneously at micro and macro-scales, influencing and feeding into each other. The more different types of interdisciplinary encounters concentrate on a timeline, the greater impetus and momentum is created for new, interdisciplinary spaces that blend the thinking, resources, theories, and methodologies of diverse fields. The interfaces between arts and technology

fields explored as part of these encounters gradually come to be concretised in spaces rich with potential for creativity, artistic innovation and knowledge advancement. Given the tight interplay between theory and practice, research and arts making, macro-scale developments for arts and technology collaborations can be conceived as the gradual configuration of intertwined and mutually influencing interdisciplinary artsapes and interdisciplinary knowledgescapes. The first concept captures the emergence of spaces of creative possibility that draw insights, resources, tools and inspiration from manifold domains, from performance to design, human-computer interaction and software engineering. The latter are spaces that blend different epistemological and disciplinary approaches, insights and theories in ways that cannot be afforded within specific disciplinary confines.

At present, interdisciplinary artsapes and knowledgescapes for performance and technology intersections exist more as potential than as reality. To come into effect, there is a need to reinforce both their immaterial dimension (made of knowledge, approaches, theories and ways of thinking) and their material dimension (made of physical or represented counterparts of the former, as well as research and practice infrastructures and new generations of practitioners and researchers with an interdisciplinary training). At the moment, most contributions coming from interdisciplinary collaborations are in the field of dance and performance rather than digital media studies, design, and human-computer interaction. One of the most notable impacts involves the adoption of perspectives, frameworks and concepts borrowed from technology disciplines. Technological developments can inform conceptions of the body, movement, and gestuality. In a “technological epistemology of the body”, the metaphor of the machine or computer is used to illustrate how the body functions (deLahunta 2004: 236). Further, new ways of thinking about movement, choreography and composition in media terms emerge. For instance, as early as 1975, the dance pieces *Locus* and *Accumulation* by choreographer Trisha Brown provide instructions for movement which can be seen as a source code, one which can be replicated. The instructions for *Accumulation* read:

The accumulation is an additive procedure where movement 1 is presented; start over. Movement 1; 2 is added and start over. 1, 2, 3 is added and start over, etc., until the dance ends (cited in deLahunta 2003: 306).

Second, the performing arts domain benefits from the creation of software tools that can aid choreographers in their creative process. Such tools were typically created by artists in arts organisations who had programming skills and 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, 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. They are therefore instrumental to adopting and appropriating ways of thinking, meaning making, and composition algorithms that are characteristic of the technology field.

Moreover, collaborations between performance artists and technologists contribute to radical 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). There are other, more subtle influences migrating from the technology to the arts field, having to do with the endorsement of attitudes, approaches and visions for making art, even philosophical or axiological principles. In his essay *Open source choreography?* deLahunta (2003) comments on the parallels between the Open Source movement and the increasing interest among dance practitioners and choreographers to make available documentation that illustrates their practice and creative work. This interest is driven to some extent by principles that echo those animating the Open Source movement and having to do with an ethos of free sharing and reuse. Yet unlike open software, which is free to use and modify and is effectively a property of the commons, the collective pool of information on dance making, while freely available, is still attached to frameworks and regulations that privilege individual, rather than collective, authorship.

On the other hand, the contribution of performance to technology fields is still underexplored. The potential is there to inform both new ways of thinking about technology, as well as informing methodologies for digital media design and interpretation (Skjulstad et al. 2002). The premises and promises that performing arts paradigms and ways of thinking could bring to computer technologies were sketched more than two decades ago, and found a vibrant expression in Brenda Laurel's book *Computers as theatre* (2013). The book examines how computer activities can be seen from a perspective grounded in theatre and television studies, and envisages how human-computer interaction can cater for more engaging user experiences by looking into approaches to playwriting and audience engagement. The book opened a new page in the interplay between theatre and computing, one which is still being written. As Don Norman points out in the Foreword to the 2013 edition:

Theatre is about interaction, about themes and conflicts, goals and approaches to those goals, frustration, success, tension, and then the resolution of that tension. Theatre is dynamic, changing, always in motion. Our modern technologies with their powerful computers, multiple sensors, communication links, and displays are also about interaction, and treating that interaction as theatre proves to be rich, enlightening and powerful. (Norman 2013: xi).

Still unfolding is also the configuration of the new interdisciplinary spaces of knowledge and art development, which interdisciplinary collaborations in performance making are contributing to. The potential, in these new spaces, is to give rise to new literacies, new ways of imagining interactions between body, movement and computing technologies, and sketching new premises for the creation of innovative

art. While there has been a significant amount of research on new literacies, digital and multimodal, little research exists on the role of dance and performance in informing these new literacies (Skjulstad et al. 2002).

7 Conclusion

This chapter provided a critical examination of interdisciplinary collaborations in making digital performances, seeking to articulate their contribution to advancing both art making and knowledge production within and across disciplines. Such interdisciplinary creative practice is very varied and can be oriented towards making new performances, designing and developing technical systems and tools, coming up with new concepts, ideas, and theories, or sharing and developing knowledge across disciplines. Whilst these encounters are mostly episodic, often organised in the frame of time-bound projects, their impact on disciplinary growth and arts innovation is cumulative. The field of performance, by its nature open to integration and novel perspectives, gains new understandings and approaches to art making through the appropriation of technical or design-informed approaches, methodologies and conceptual lenses. In reverse, technical and design disciplines can be informed by performance studies in their interpretation of technology and human-machine interactions, and in devising new theoretical and methodological pathways for innovative interaction and software design. Moreover, interdisciplinary collaborations contribute to configuring what we have called *interdisciplinary artsapes* and *interdisciplinary knowledgesapes*: spaces in between which offer new premises, resources, tools, theories and methodologies for making and theorising art drawing on integrative perspectives bridging arts and technology fields. Analogous to the tight interplay between theory and practice in performance studies, interdisciplinary artsapes (as integrative spaces of creative possibility) and knowledgesapes (as integrative knowledge and meaning-making spaces) are tightly intertwined, mutually influencing each others' evolution. Because of this quality of integration, their greatest potential is to develop and offer new languages, vocabularies, paradigms, and literacies, and in time configure radically new ways of making and theorising arts and culture.

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Sound Archives Accessibility

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Abstract

The paper analyses the conflicting issues that arise when dealing with Intangible Cultural Heritage (ICH) held in audio digital archives, when the demand for open access conflicts with ownership rights and ethical issues. It describes two case studies in order to evaluate the procedures used for doing research on oral materials while respecting the rights of others. The first refers to the activities carried on at the *Phonothèque de la Maison méditerranéenne des sciences de l'homme*, a French sound archive; the second refers to the solutions envisaged by an Italian research project, *Grammo-foni. Le soffitte della voce (Gra.fo)*, jointly carried out by Scuola Normale Superiore of Pisa and the University of Siena.

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K.J. Borowiecki et al. (eds.), *Cultural Heritage in a Changing World*,
DOI 10.1007/978-3-319-29544-2_3

1 Introduction

This paper addresses the impact of the computational era on a very peculiar ‘public space’: web portals containing digital audio archives.¹ Digital audio archives are the final outcomes of several disciplines, from oral history to linguistics, from anthropology and ethnography to social sciences. They usually contain a significant variety of research data referring to different textual *genres* (e.g., a sequence of interviews on a particular topic; answers to a *questionnaire*; speech *corpora*; spontaneous or semi-spontaneous speech). But they may also contain public events of many kind (e.g., performing art events like for instance folk drama or folk poetry performances, but also political meetings and assemblies). Although they most frequently arise in academic communities and networks, digital audio archives are also created by heritage communities, informal groups and individuals who are interested in their preservation and accessibility.

The concern about digital audio archives is particularly relevant since it addresses issues such as ownership, distributed and entangled responsibility, open access and privacy. The internet appears to be a significant extension of the public space; nevertheless, the distinction between private and public is more important than ever. In addition, the development of Information Communications Technologies (ICTs) modifies our relationships to cultural heritage and archive maintenance. It ‘democratises’ the access to the data, since it resides and tends to multiply in a throng of repositories and sources. As a consequence, the world of knowledge has become a world of abundance where all pieces of information are always at everybody’s disposal, but at the same time the quantity of available contents exceeds by far, more than ever, our cognitive abilities (Ganascia 2015: 67–68). Given this background, the domains of audio documents stemming from fieldwork and oral data collection—both of which contribute to the creation of audio archives—represent an interesting and under-investigated scenario, where at least three intertwined concerns emerge:

- Use and re-use of research data;
- Ethical questions involved in the re-use of research data;
- Legal questions stemming from online diffusion.

These three issues represent a cross-curricular area concerning researchers, scholars, archivists, librarians, public and research institutions. Research data archiving, accessibility and re-use are nowadays at the centre of scientific debate, among different scientific communities around the world. In this respect, the *data deluge* described in the monographic volume of *Science* 331 (2011) appears to be paradigmatic of the renewed attention towards data collection, curation, and access.

¹ ‘Oral archives’, ‘sound archives’, ‘audio archives’, ‘speech archives’ are considered as synonymous in the present paper, although they may refer to different traditions, according to different branches of knowledge.

While available data are exponentially growing, it is crucial for many disciplines to decide which data to preserve and which to dismiss, how to access the archived data and how to reuse them in a consistent, sustainable, ethically-correct way. This need has been strongly felt by physicists, who in 2009 created a working group called ‘Data Preservation in High Energy Physics’ (DPHEP). More complex and even contradictory appears to be the debate in the domain of the social sciences:

Although information overload has always been an issue for scholars, today the infrastructural challenges in data sharing, data management, informatics, statistical methodology, and research ethics and policy risk being overwhelmed by the massive increases in informative data. Many social science data sets are so valuable and sensitive that when commercial entities collect them, external researchers are granted almost no access. Even when sensitive data are collected originally by researchers or acquired from corporations, privacy concerns sometimes lead to public policies that require the data be destroyed after the research is completed—a step that obviously makes scientific replication impossible (King 2011: 719).

Methodological obstacles connected to archiving have been extensively discussed e.g. in Britain (Mauthner et al. 1998; Richardson and Godfrey 2003; Parry and Mauthner 2004; Bishop 2009), France (Descamps et al. 2005; Marcadé et al. 2014) and Finland (Kuula 2010/2011). Communities of practice like, for instance, those of the Presto4U EU project dealing with ‘Research and Scientific Collections’ and with ‘Music and Sound Archives’ gathered from all around Europe in order to identify useful research parameters in the digital audio-visual preservation domain, to raise awareness and improve the adoption of these results by technology and service providers as well as media owners (PRESTO4U 2014). Research networks were born, especially in France (e.g. *réseau Quetelet*), whose mission is the preservation of fieldwork surveys consisting of questionnaires. More recently, several research groups have appeared (among them, *beQuali*), whose aim is to collect, digitise, and spread qualitative interview data. It is important to underline that such initiatives can be very useful from a scientific and educational point of view, regardless of which method and research style have been used. First, they show the variety of methods and devices used by different researchers. Second, they can be used as a didactic tool for students and fieldwork novices in order to better explain different methods for collecting and gathering data; for creating a corpus; and for reporting the research work according to the principle of accountability.

The paper is organised as follows. Section 2 presents the relationships between digital audio archives and Intangible Cultural Heritage. In Sects. 3 and 4 two case studies are described in order to evaluate the procedures used for doing research on oral materials so as to respect the rights of others. Both cases represent different but intertwined examples of accessibility in relation to digital audio archives: the first refers to the activities carried on at the *Phonothèque de la Maison méditerranéenne des sciences de l’homme* of Aix-en-Provence; the second refers to the solutions envisaged by the Italian research project called *Grammo-foni. Le soffitte della voce (Gra.fo)*. The first one is an institution also devoted to preservation and

conservation, while the second is the outcome of a research call. The final section presents some closing observations associated to the accessibility of digital audio archives.

2 Audio Archives and Intangible Cultural Heritage

Digital audio archives are not peculiar to a single branch of knowledge. On the contrary, they appear to be a virtual space in which different kinds of expertise convene and deal with unusual, original research questions concerning audio preservation, cataloguing, transcription, analysis, data re-using, and access rights management. Oral historians, linguists, and anthropologists have often underlined the urgent need to protect analogue and born-digital audio archives collected by professional scholars and ordinary people interested in languages, dialects, tradition, popular music, and ethnology. In every respect, audio archives are a precious resource: linguists, anthropologists, ethnographers, oral historians have spent years collecting materials that deserve safeguarding and circulation. However thousands of hours of speech recordings collected for different purposes, despite having been digitally preserved, are still inaccessible to the communities for which they have been produced, not to speak of the wider audience. In most cases, audio archives collected in the humanities and social sciences are still in the hands of the original researchers. It can even be very difficult to get the basic datasets documentation and even more difficult to persuade researchers and private citizens to provide open information about their data. Crucially, the UNESCO *Convention for the Safeguarding of the Intangible Cultural Heritage*, Article 2 defines this material as belonging to Intangible Cultural Heritage domains, which include:

- oral traditions and expressions, including language as a vehicle of intangible cultural heritage;
- performing arts;
- social practices, rituals and festive events;
- knowledge and practices concerning nature and the universe;
- traditional craftsmanship.

It is widely known that conflicting issues arise when dealing with Intangible Cultural Heritage, since the demand for open access conflicts with ownership rights and ethical issues (Lixinski 2013; Tucci 2013; Farah and Tremolada 2014). It is therefore urgent to identify the possibility of reaching a balance between two conflicting demands: the need for Intangible Cultural Heritage openness and accessibility vs. the respect of all rights related to Intangible Cultural Heritage, e.g. copyright, intellectual property, privacy. In this respect, special attention must be devoted to the dissemination of oral heritage via new technologies, which requires a thorough reflection not only from the technological point of view, but also from the legal one. In fact, most of the analogue recordings that constitute oral heritage were collected at a time when little or no attention was

paid to the legal aspects related to Intangible Cultural Heritage. Thus the need for the open circulation of documents can clash with some inviolable rights (copyright, right to privacy, right to individual oblivion) that can be claimed by those whose voices have been recorded or even by those who have been simply mentioned. Not long ago, it was impossible to imagine that the recorded voices could be accessed via the internet. In this respect, archivists have a new responsibility: they are the ‘guardians’ of the witnesses’ personal data and e-reputation. In order to develop a set of best practices for dealing with the legal aspects related to handling, cataloguing, using, and disseminating oral heritage documents, it is necessary to analyse the European panorama, emphasising the differences, but also trying to find points of convergence among the countries under civil law and those under common law system, in order to make accessible this common heritage beyond national boundaries.

3 The Phonothèque de la Maison Méditerranéenne des Sciences de l’Homme

The *Phonothèque de la Maison Méditerranéenne des Sciences de l’Homme* (Mediterranean Research Centre for the Humanities; henceforth MMSH) is an archival research centre created in Aix-en-Provence (France) at the end of the 1960s by Philippe Joutard, a contemporary historian, and Jean-Claude Bouvier, a dialectologist, both researchers at the *Centre de recherches méditerranéennes sur les ethnotextes, l’histoire orale et les parlers régionaux* of Aix-en-Provence (CREHOP). The collections consist of deposits made by scholars working with oral inquiries or by associations dedicated to heritage preservation. Wishing not only to preserve their recordings and to have their field interviews published, they strived to make their sources available to the general public. In connection with MMSH researchers, CREHOP holds field recordings collections in the domains of anthropology, sociology, linguistics, political sciences, history, music and literature, all focused on the Mediterranean area. It illustrates fields poorly covered by conventional sources or complements them with the point of view of real actors and witnesses.

In 1997, CREHOP integrated MMSH creating a research and training campus including 11 research laboratories, all based in the South of France and specialising in Mediterranean culture. In 2015, the collection held more than 7000 h of speech/sound recorded from the late 1970s around four main topics:

- Oral literature, ethnomusicology, techniques and know-how;
- Life experiences, oral history, collective memory;
- Language and cultural identity;
- Epistemology and methodology: workshops, seminars, courses.

The audio collections have been digitised since January 2000 and include 6000 h of recordings, listed on an online catalogue, while the audio archives are

editorialised on a scholarly blog called *Les carnets de la phonothèque*, where it is possible to enjoy the so-called ‘veille active’ organised by the Phonothèque working group, whose aim is also to disseminate the contents of the recordings via the World Wide Web. The next section presents two different examples of dissemination the first refers to the European project *Europeana Sounds*, while the second deals with the procedures envisaged by the MMSH audio archive in order to facilitate each scholar to disseminate his/her research archives.

3.1 Dissemination in Networks: The Example of *Europeana Sounds*

The MMSH audio archive centre takes part in several projects supporting the dissemination of the materials. In 2010, the catalogue has joined the *Portail du patrimoine oral (Oral Heritage Portal)*, a collective catalogue of audio and audiovisual archives on oral tradition in France. The portal, launched in 2011, contains audio and video documents such as songs, tales, traditional music, life stories, recorded *in situ*. At the moment, nine different databases are accessible through this portal: the MMSH audio archive, the Office of Auvergne’s Territories Music at Riom (Auvergne), the Centre for study, research and documentation of the spoken word (Poitou-Charentes-Vendée), the Museum of instruments at Céret (Catalogne), the Occitan centre of music and traditional dance at Toulouse, the Regional centre for traditional music (Limosin), the Archives for spoken word heritage (Bretagne), the Music and oral traditions centre (Normandie), and the Bourgogne Centre for spoken word heritage. In 2011, the MMSH audio archive catalogue was integrated into the portal *Isidore*, which provides access to digital and digitised research data in humanities and social sciences in French-speaking countries internationally.

In February 2013, the MMSH Sound Archives Centre was involved in the *Europeana* and *Europeana Sounds* project coordinated by the British Library, which brings together 7 national libraries, 5 archive and research centres, 2 other public bodies, 4 non-profit organisations, 3 universities, and 3 companies in 12 - European countries. The *Europeana Sounds* project deserves special attention because of its innovative potential for audio archives: not only does it allow access to one million audio documents, but it is also focused on promoting a creative re-use of the recordings. Scheduled to run from February 2014 to January 2017, *Europeana Sounds* is co-funded by the European Commission and the *Europeana Sounds* consortium. The activities of the project are organised in seven thematic work packages: aggregation, enrichment and participation, licensing guidelines, channels development, technical infrastructure, dissemination and networking, project management and sustainability. The majority of these activities depend on Workpackage 3 “Rights Labelling Guidelines”, headed by the Netherlands non-profit organisation Kennisland. It provides legal guidelines for integrating audio content into *Europeana Sounds* based on the current status of the *Europeana* Licensing Framework, including the results of the rights survey. This survey addressed the barriers to online access and proposed guidelines in order to disseminate online audio data. It involved all the European countries participating

in the project and produced a comparative assessment on how legal issues are faced within the different European research communities. In 2014, among other deliverables, the *Europeana Sounds* consortium published an open access best practice guide on the following theme: *Rights Labelling Guidelines. Guidelines for Contributing Audio Content Into Europeana*.

This guide presents a complete survey of all the obstacles relating to online access, proposing solutions for use concerning audio content. Its main key points can be summarised as follows. First, it is necessary to detect the different types of Intellectual property rights (IPR) which may affect a certain audio work from three different points of view: the composition, the performances and the recordings. As for the composition, copyright protection has a time limit, usually 70 years after the death of the creator. Once such time limit has expired, the work enters the public domain. In the case of audio material, the so-called ‘related rights’ appear to be very relevant too: they warrant a different term of protection and are given to performers, producers, recordists and broadcasters. Therefore, although a composition may be in the public domain, the related digital object may not enjoy the same status, exactly because of the related rights. The time limit concerning the related rights is 50 or 70 years after the first publication or the first communication to the public. A rather different case is represented by the database rights, whose time limit is 15 years after creation: they turn out to be very relevant in case an institution receives digital sound archives from another institution. Second, after a very careful analysis of Intellectual property rights, in case one or more of these rights applies to a certain digital work, it is important to obtain permission from all the rights’ holders before publishing and reproducing it. Finally, the guide provides a detailed account of the *Europeana* licensing framework, in order to facilitate *Europeana*’s activities and, in particular, data ingestion into *Europeana* space.

Although ‘spoken word digital audio’ objects are specifically mentioned in the *Guidelines* when describing the possible Intellectual property rights involved, the extraordinary variety of practices in fieldwork in oral history, linguistics, anthropology, and sociology certainly requires a more in-depth analysis, in order to both cover unpublished audio archives and consider the ethical issues involved in their dissemination (Zeytlin 2012). This is why the MMSH Sound Archive Centre is at present engaged in a project that focuses more directly on the dissemination of research data in the social sciences and humanities: a working group under the auspices of the DARIAH (Digital Research Infrastructure for the Arts and Humanities) consortium is elaborating a best practice document entirely dedicated to ethical and legal issues. The French version of the text (whose English provisional title is “Good practice guide for disseminating digital resources in the Humanities and Social Sciences. Legal and ethical issues in digital research”) has been written by different stakeholders (interviewers, interviewees,² researchers, archivists) and is now available on a scholarly blog named *Questions d’éthique et de droit en SHS*. The working group produced several tools: specimens for the legal

² ‘Interviewee’, ‘informant’, and ‘witness’ are considered as synonymous in the present paper, although they may refer to different traditions, according to different branches of knowledge.

agreement between interviewees and researchers, between researchers and institutions, and between researchers, interviewees, and Heritage institutions.

3.2 Ethical and Legal Issues: An Example from the MMSH Audio Archive

In partnership with the team of the MMSH Sound Archives Centre, and according to the topics explored, the researchers choose the terms of access to their data at the moment in which they create the deposit. The MMSH Sound Archive Centre offers the scholars a set of tools (e.g. legal agreements, classification and cataloguing templates) to help them disseminate their research in accordance with best practices and ethical and legal guidelines. As a result, around 2000 h of audio recordings are directly accessible online.

From the ethical and scientific viewpoint, field recordings cannot be disseminated as standalone materials, i.e. without any contextual information. Audio documents in archives need to be carefully interpreted in order to be understood, and any relevant note, drawing, or diary produced by the researcher before, during and after the fieldwork constitutes a precious resource for correctly interpreting the documents. In this respect, the contextualisation of field recordings is a thorny issue: each recorded document collected during fieldwork has to be used and re-used together with all the different elements of the scientific research from which it originates (Descamps et al. 2005). It is very important to clarify that these recordings are not ‘the truth’. Indeed, they refer to the witnesses’ representation of the given situation. For this reason, sound archives centres usually make sure that they embed as much contextual information as possible into the digital materials.

At the MMSH Sound Archives Centre, the sound archives can be harvested in Dublin Core (DC) on Isidore, a platform allowing access to the digital data of Humanities and Social Sciences, in Europeana Data Model (EDM) on *Europeana*, or in Encoded Archival Description (EAD) on *Calames*, i.e. the online catalogue describing archives and manuscripts held by French universities and research libraries and institutions (*Catalogue en ligne des archives et des manuscrits de l’enseignement supérieur et de la recherche*), administered by the *Agence bibliographique de l’enseignement et de la recherche* (Bibliographic Agency for Higher Education—*ABES*). Affiliation to the national platform, *Calames*, in 2013 represented a relevant turning point for the MMSH Sound Archive Centre. Most importantly, through *Calames*, the MMSH Sound Archive Centre has access to IdRef (Identifiants et Référentiels), the French system for reference identification in research, which is linked to the Virtual International Authority File (VIAF) Project and used by Worldcat, the world’s largest network of library content and services, dedicated to providing access to library resources on the Web. The matched use of VIAF and Worldcat ensures two intertwined properties first, informants are no longer hidden in archive databases, and second, their contribution is held in academic databases throughout the world. Furthermore, once the informants’ names have been identified, they are given an international identifying number and thus benefit from the standard features ensured by the *International Standard*

Name Identifier (ISNI): uniqueness, stability, visibility, sustainability, interoperability, and independence (Angjeli et al. 2014). Uniqueness comes from the fact that a name is unique and duplication is not allowed. Stability derives from the fact that ISNI is an ISO standard (ISO 27729:2012). As for visibility, ISNI facilitates the process of Search Engine Optimization in order to identify the informants' names. Sustainability is a consequence of the ISNI commitment towards the long-term preservation of the data. Interoperability of all the identified names derives from the fact that ISNI works together with VIAF, IdRef, Open Researcher and Contributor ID (ORCID). Finally, the National Library of France and the British Library, being the coordinators of the ISNI International Authority (ISNI-IA), the ISO registration authority of ISNI, are the guarantors of ISNI's independence.

The example referred to in the title of the present subsection stems from the *repertoire* of tales and songs from the Cevennes area given by a privileged witness, the late Marcel Volpilière, who provided more than 20 h of recorded interviews with three separate researchers who deposited their archive material in MMSH Sound Archives Centre and probably in other centres. This repertoire has also been published in a series of audio cassettes and reissued on CDs and in a book. Identifying this witness like a 'real' author helps us identifying other archives containing documents linked to Marcel Volpilière (e.g. recordings of interviews with Marcel Volpilière, other related documents). In this respect, inclusion of the informants' name is an effective contribution to the information-gathering process. Indeed, one can find things such as: unpublished interviews relating to the life of Volpilière as a Cevenol farmer; legends of Mont Lozère; the importance of the chestnut tree for Volpilière himself and for the community's identity; and fantasies of Cevenol farmers in their daily life. Via inclusion in IdRef, one can:

- provide this witness with a unique, stable and long-term international identifier, covering all interviews recorded by several interviewers in a single village in the Cévennes between 1970 and 1990;
- establish links between his publications and the recordings of his interviews by confronting the various forms of materials that he provided, thus underlining the importance of interoperability;
- give greater visibility to a Cevenol farmer, through *WorldCat Identities*.³

Before ethical and legal issues were at the centre of the scientific debate, the voices of the witnesses recorded in fieldwork were not integrated in academic databases. Finding a way to face ethical and legal issues might ensure that the sound archives' voices be listened online as a part of our common cultural heritage. Clarifying these issues is crucial in order to reach the main objectives of dissemination, crowdsourcing, creative re-use, discovery and referencing of sound data, as also the *Grafo* project proves.

³ <https://www.worldcat.org/identities/lccn-n87107956>. Accessed November 10, 2015.

4 The Project *Grammo-foni. Le soffitte della voce (Gra.fo)*

The project *Grammo-foni. Le soffitte della voce (Gra.fo)*, jointly carried out by Scuola Normale Superiore of Pisa and the University of Siena, and financially supported by Regione Toscana (PAR FAS 2007–2013), detected and preserved a large number of audio (speech and music) recordings collected on the Tuscan territory, making them publicly available via a dedicated online archive (GRAFO 2011–2014).

The project included five stages:

- fostering the awareness level on the importance of preserving this valuable (but largely invisible) product of cultural heritage;
- contacting the audio recordings' owners to legally agree for the temporary borrowing of the materials;
- collecting, digitising, and (when necessary) restoring the audio materials;
- systematically cataloguing and partially transcribing the speech documents;
- offering the opportunity for online accessibility of digitised content for a large audience.

This large and still growing repository provided the opportunity to discover audio texts which, until now, have been known to a very limited number of possible users, thus ensuring the safeguarding of a specific type of endangered intangible cultural heritage. Besides, the *Grafo* archive offers a vast quantity of (mostly unpublished) documents for further linguistic, economic, social, political, historical, and cultural analysis. Until now, the project digitized more than 2800 h of Tuscan speech, and a large part of the data are accessible for download through the web portal, as explained below.

4.1 The Preliminary Stages: Census and Collection

Besides its wealth in paper documents (Petrucci 1994), Tuscany also is a privileged area for collecting and working with oral documents, as it abounds with both public and private audio archives, collected by scholars as well as amateurs. In the effort to produce a census of the Tuscan audio archives, the already existing censuses (Andreini and Clemente 2007) have been used and integrated with information about oral archives collected for linguistic and dialectological research purposes, such as *Carta dei Dialetti Italiani* and *Atlante Lessicale Toscano*. Subsequently, a priority list was created according to three main criteria:

- relevance and antiquity of the materials (older materials might witness disappeared or disappearing language varieties);
- state of preservation of the materials (priority should be given to those materials which look more damaged and whose content, therefore, is more likely to be lost in the near future);
- geographic representativeness (so that every area of Tuscany can be represented in the archive).

Following the above-reported priority list, the audio archives' owners were directly contacted to illustrate the aims and organization of the project. The *Grafo* staff then worked with the interested archives to facilitate the project, in collecting the material, and signing legal agreement for the temporary borrowing and future dissemination of the materials. In addition, the owners of the archives with no proper bibliography or accompanying materials were interviewed in order to explain the motivation and aims of the research that inspired the creation of their own archives. Indeed, unlike other kinds of materials, the motivation behind audio documents is often only known to the researcher(s) who collected them. Such interviews (called 'Tell something about your archive') are crucial, as they provide the key for correctly interpreting and cataloguing the archive and thus offer the user an appropriate guide. In some cases, the owners actively helped in the description of their own archives, and the cataloguing could be directly taken care of by someone who had been active in the actual collection of the recordings.

Both the digitization process and the cataloguing stages fall outside the topic of the present paper: the reader is referred to Bressan and Canazza (2013), Calamai et al. (2013), Calamai and Bertinetto (2014), and Calamai et al. (2014)—where some drawbacks associated with the conversion of analogically recorded speech and music to digits are also addressed. Indeed, as claimed in the aforementioned paper from a documental/ecdotic point of view, the act of 'disembodying' the original information inevitably involves a new reconstruction of the content.

4.2 From the Database to the Website

The *Grafo* database uses the MySQL system and consists of 59 interconnected tables, some of which have specific constraints. The tables contain information on the fields created for cataloguing and for the creation of the preservation copies, stored in a specific server archive with Raid 5 configuration. The collaborators devoted to digitizing and cataloguing interact with the database through specific applications, respectively called *Audiografo PP* and *Audiografo CP*, with user-friendly interfaces consisting of drop-down menus, checkboxes and open fields.

The web portal is a technological interface which, by querying the database and the server archive containing the preservation copies, allows the end user to search all documents collected in *Grafo* (cataloguing records, .mp3 files, transcriptions and the pdf files of the accompanying materials). The website contains the description of the project, as well as the archives and the cataloguing records. The page devoted to the archives lists their names and descriptions, the subsections names, and the 'Tell something about your archive' interview. As for the search, two distinct types are supported:

- by linguistic area (an interactive map allows the users to click on the area of interest and access the corresponding records);
- by content (i.e.: topic, *genre* and type of document, date and place of the recording, language variety).

The cataloguing record of each document provides the following information:

- name and description of the archive (and subsections) to which the document belongs
- conditions of access (i.e. whether the document undergoes access restrictions for privacy reasons—see *infra*)
- title (and alternative title, if present)
- content
- keywords
- researcher's name
- informant(s) name, sex, date and place of birth, education level and profession
- date, place and setting of recording
- typology
- topic
- *genre*
- language variety
- aim of the recording
- bibliography
- type of carrier
- recording (downloadable in .mp3 format)
- accompanying audio-related material (downloadable in .pdf format)
- transcriptions (downloadable in .pdf format).

In addition, all documents concerning the conventions adopted within *Grafo* with respect to digitization, restoring, cataloguing and transcription protocols are available on-line. The website and the cataloguing records are openly accessible but, in order to prevent improper use, user authentication is required for the downloading of .mp3 files, transcriptions and accompanying materials.

4.3 Ethical and Legal Issues

One of the major problems faced by the *Grafo* project was the treatment of confidential information. Many archives were recorded before approval of the national law on privacy rights (Personal Data Protection Code-2003),⁴ so that the informants were not asked to give their authorization for future dissemination. As a consequence, *Grafo* only provides the initials (rather than the full names) of the informants and of the people mentioned in the recordings. Their full names together with other personal information are shielded in the *Grafo* repository. Considering

⁴Personal Data Protection Code-2003, English version available at <http://www.garanteprivacy.it/web/guest/home/docweb/-/docweb-display/docweb/2427932>. Accessed November 10, 2015.

the extremely different types of oral material collected inside the project, three different types of access are made possible, depending on the presence of confidential data in the documents:

- *Full access via web portal*—with documents that do not contain any confidential information, one can be read the summaries and download the full audio documents, the accompanying audio-related materials and the transcriptions (if available).
- *Partial access via web portal*—documents containing some confidential data (less than 90 % of the total recording time) are edited in two different versions: a full version, only available for consultation in the *Grafo* physical location, and a partial version, with edited summary and partially obscured mp3 file, available on the web portal.
- *Access in the Grafo physical location*—documents mostly consisting of confidential data (over 90 % of the total recording time) are accessible on the web portal only through an edited summary, while the mp3 file is only available for direct consultation in the *Grafo* Laboratory.

If the accompanying audio-related material contains confidential data, it is only available for consultation in the *Grafo* laboratory, while the transcriptions (if available), are accessible on the web portal after removal of the confidential data.

The right to individual oblivion, something Laouris calls “the right to digital euthanasia” (2015: 124), is another important issue in the digital era and it is not only a mere technical problem, as Laouris above claims. The *Grafo* project takes this issue into consideration in two different clauses of the portal policies.⁵ First, it is possible to ask the portal administrator to remove particular data from the web. However, it is undeniable that legal problems cannot be solved by merely technical solutions (Hildebrandt 2015: 179). This is especially true in the domain of oral history and intangible cultural heritage. Let us take a more detailed look at the Italian case. In the 2001 *Code of Conduct and Professional Practice Regarding the Processing of Personal Data for Historical Purposes* no more than five lines are devoted to ‘oral sources’, namely:

⁵ See Art. 10—Segnalazioni and Art. 11—“Norme riguardanti la riservatezza” at the following url: <http://grafo.sns.it/web/guest/policy>: “La pubblicazione dei contenuti del portale è effettuata secondo il principio della buona fede e secondo regole di massima correttezza, diligenza e perizia. Chiunque, nonostante l’applicazione di questi principi da parte di *Grafo*, ravvisi la violazione di un diritto di cui sia titolare (es: diritto di autore, diritto all’immagine, diritto alla riservatezza), potrà segnalarlo all’indirizzo grafo@sns.it. Qualora sia accertato che la segnalazione ha un valido fondamento giuridico, i Proprietari del Portale si impegnano a rimuovere tempestivamente il contenuto dal portale, dandone comunicazione al reclamante nel più breve tempo possibile”.

interviewees: Oral Sources

1. With regard to processing of oral sources [of information], it will be necessary for the interviewees to give their express consent, whether orally or not, even based on summarized information including at least the interviewer's identity and activity and the purpose of the data collection.
2. If an Archive acquires oral sources, the interviewer will be requested to produce a written statement to the effect that the purposes of the interview have been notified and the relevant consent has been obtained from the interviewees.⁶

Secondly, given this rather thorny framework, the key word of the *Grafo* staff has been 'transparence', specifically by making the project's aims explicit—either by a face-to-face communication or by letter—to all persons involved: interviewees, interviewers, archive owners, but also archive curators, and—if possible—the descendants of interviewees and interviewers.

5 Conclusion

The theme of accessibility of digital audio archives, as discussed so far, is quite problematic. It involves both developing a code of conduct with respect to professional ethics, and facing legal issues. Several researchers internationally involved in the domain of audio archives feel the need to better spell out their responsibilities with respect to the Digital Era. The importance of all accompanying materials and contextual information associated to each archive has been emphasized above, with respect to both French and Italian case studies (Sects. 3 and 4). This is the pre-condition for a proper re-use of research data. However, such theme goes beyond the scope of academic groups, universities and research centres. Finding the guidelines for accessibility of audio archives is a cultural operation. There are several reasons for it. First, this involves building, promoting and reinforcing an 'open' culture. In many cases, digital audio archives lodge intangible cultural heritage content. It is thus important to foster everyone's awareness that intangible cultural heritage refers to crucial themes for the European digital agenda, including: authorship, copyright, copyleft, and creative commons. In this respect, folklore data—one of the most prototypical examples of intangible cultural heritage—can be considered as a kind of 'open source' product (Bertolotti 2011: 68). In the words of Roman Jakobson and Pëtr Bogatyrev, writing in 1929:

An item of folklore begins its existence only after it has been adopted and sanctioned by the community. As in the development of *langue*, the environment prunes a created work to fit its taste; if the community rejects it, it simply dies out. A community retains only those items of folklore which have a functional value for it. Like *langue*, the work of folklore is

⁶ The English version of the Code can be accessed at the following url: <http://www.garanteprivacy.it/web/guest/home/docweb/-/docweb-display/docweb/1565819>. Accessed November 10, 2015.

extrapersonal and leads only to a potential existence; it is only a complex of certain norms and impulses, the canvas of the actual tradition, which the tellers revive with the embellishment of their individual creation.⁷

Second, defining the guidelines for accessing audio archives allows the researchers to create the condition for returning their contents to the communities and the individuals that produced them. This reinforces the mutual relationship between interviewee and interviewer that comes about during fieldwork with oral sources, whatever the actual domain in which the given oral sources are collected and investigated. A restitution act has the additional advantage of promoting the engagement and the participation of small communities and private citizens. Scientific communities are increasingly concerned with community engagement and empowerment, in order to enhance good behavioural norms inside the communities themselves. As claimed in Art. 15 of the UNESCO *Convention for the Safeguarding of the Intangible Cultural Heritage*, heritage communities, groups and, where appropriate, individuals are asked to create, maintain and transmit such heritage, and to be actively involved in its management.

Finally, the issue of audio archives accessibility has encouraged the rethinking of personal data protection. This should be viewed as a renewed impulse to re-define the privacy value, considering the need to rethink what people consider really worth of protection (Dewandre 2015: 203). As Oates (2015: 225) claims:

The online agora is a precious public resource. Currently, it is being colonized by corporations and states, in ways that asymmetrically reassign the power of information and personal data to the elites. What is needed is an understanding that a public agora should be conceptualized and protected in a way that tips the balance away from the elites and toward the citizens.

In the realm of the digital sound archive, ethical and legal issues are no longer themes for bureaucrats. Asking all stakeholders involved in the process of building digital audio archives (from individual researchers, to archives' owners, from interviewees and interviewers and their descendants to public and private institutions) what can be freely accessed on the web (and with what kind of constraints) amounts to setting the ethical issues at the foreground of research. In order to obtain useful answers, and positive attitudes towards web diffusion, it is necessary to clearly and honestly explain the reasons behind accessibility. In other words, communication of research results becomes an essential task for scholars. In this respect, the most crucial topic with respect to accessibility concerns the legal issues related to the digital archives that were produced when the web did not yet exist and legal agreements during fieldwork were the exception rather than the rule. A large amount of such data could run the risk of remaining forever inaccessible on the web, unless adequate and careful balance is found between open access on the one side, and ownership rights and ethical issues on the other side. Digital audio

⁷ Jakobson and Bogatyřev (1929), English translation by J.M. O'Hara, at <https://scholarworks.iu.edu/dspace/bitstream/handle/2022/1711/13%281%291-21.pdf?sequence=1>. Accessed November 10, 2015.

archives can thus offer a valuable contribution in establishing rights, duties and ways to access important pieces of the European Intangible Cultural Heritage.

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Technology and Public Access to Cultural Heritage: The Italian Experience on ICT for Public Historical Archives

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Abstract

The introduction and diffusion of digital technologies have had a tremendous impact on the production, preservation and utilisation of cultural heritage. In Italy, the Ministry for Cultural Heritage and Activities and Tourism (MiBACT) has undertaken several programs involving the use of digital technology to promote a larger access to cultural heritage, through the collection of metadata on cultural products preserved in the country and the provision of digital cultural products. Digitisation techniques and web infrastructures affect most activities carried out by such institutions: the production of cultural goods, the use and valorisation of cultural heritage, as well as the costs of preservation. This study analyses the digital projects carried out by the MiBACT for the preservation and utilisation of cultural heritage that is managed by public historic archives so as to evaluate their impact on the access to cultural products.

1 Introduction

Digital technologies have determined a rapid and substantial change in the practices of utilisation, supply, and conservation of cultural heritage. Some studies analysed the general impact of digitisation on cultural policy (see Flew and Swift 2013), and on museums and libraries in particular (Navarrete 2013a, b; Paolini et al. 2013; Salaün 2013). This blooming literature, however, has so far neglected, with a few exceptions (Borowiecki and Navarrete 2015), to investigate the implications of digitisation for public archives that store and preserve cultural heritage.

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K.J. Borowiecki et al. (eds.), *Cultural Heritage in a Changing World*,
DOI 10.1007/978-3-319-29544-2_4

From a theoretical point of view, digitisation techniques and web infrastructures affect all activities carried out by such institutions. Firstly, digitisation stimulates the production of cultural goods. Secondly, management and valorisation may improve, since institutions may easily handle acquisition, exchange and exhibition of products through digital catalogues, while a single web portal collecting metadata on the country's cultural heritage may help its promotion. Lastly, digitisation of cultural goods combined with the spread of web connections reduce access costs and overcome geographical and time constraints.

This chapter studies the extent to which the introduction of digital technology affects the production, valorisation and utilisation of cultural heritage existing in public historical archives in Italy, comparing it to its European counterparts from theoretical and empirical perspectives. With this aim, we study the actual extent to which European and national level projects are involving the use of digital technologies, with specific attention to the degree of digital indexing, digitisation, and the use of internet websites. We find that the introduction of different digital technologies occurs only partially in parallel, that is, more complex procedures are introduced only after the basic ones. Although digital indexing has substantially spread, digitisation is at an initial stage and the same can be said about digital access. This is true for the EU as well as Italy, which is also characterized by persistent geographical differences across its regions. In addition, the full implementation of websites seems to have no relevant effects on physical access. The chapter is organised as follows. In Sect. 2, we analyse theoretical aspects related to the introduction of digital technologies in the preservation and utilisation of cultural objects. Section 3 provides a general review of the digital projects carried out so far at European and Italian levels and analyses the current scope of these projects. Section 4 focuses on Italian public historical archives and includes an extensive analysis of the magnitude of digital projects in Italy. Some comments conclude the chapter.

2 Economic Implications of Digitisation

2.1 Digital Heritage

Digitisation implies the adoption of technology to store and transfer content. It therefore influences considerably the costs of access and preservation. This circumstance is particularly relevant for cultural heritage where digitisation means making heritage objects and services digital. As for the objects, such a process entails some form of representation (or visualization) as well as description (or contextualization); thus, digitisation of heritage refers to the 'object' as well as to its documentation.

In the literature, a wide definition of digital heritage goods is provided. For instance, according to Navarrete (2013a), we can identify three types of digital heritage goods: digitised goods, metadata and born-digital goods. Digitisation usually refers to the generation of a copy of a physical original, e.g. the scan of an

archival document or the digital image of a painting. The digitisation of information (such as size, date, origin, title, description, context) resulting from earlier documentation (e.g. paper archive, object registration cards) or from personal knowledge generated metadata which are useful to identify, describe, understand and value heritage objects. In other cases, for instance, digital (video) art, content is generated in digital form from the beginning, e.g. born-digital goods. To investigate the economic implications of digitisation, it is important to recall that heritage objects can be movable and immovable, tangible and intangible and housed in different type of cultural institutions such as archives, libraries, museums, historical buildings or archaeology sites. As described further in detail, these differences are bound to influence the effects of digitisation on the supply and demand of heritage.

2.2 Supply and Demand of Heritage

Digitisation affects the supply and demand of heritage and the economic nature of heritage goods and services, since it influences two crucial economic characteristics of their consumption: rivalness and excludability.¹

The effects of digitisation differ substantially depending on the heritage item. For libraries and archives, access to hard copies of books and documents is fully rival, while in the case of museums, historical buildings or archaeological sites rivalness occurs only in case of congestion and, therefore, it hardly emerges in the less popular heritage. Thus, for the first category of goods, digitisation allows for joint consumption, also when this would not be possible for the original items.²

From a different perspective, the application of technology might be helpful in reducing the conflict between the objectives of preservation vs. utilisation.³ In other words, technology generates positive effects on the sustainability of heritage. At a site with problems of extreme decay and deterioration, virtual visits can substitute real ones. Of course, this also applies to archives especially when very old paper documents are involved and their inspection is very risky. Indeed, in the case of extreme decay, which would prevent usage anyway, digitisation generates private benefits, which would not occur otherwise because of the risks connected to the direct use of the item.

The digital access to heritage sites is generally more public than the 'real' one. In fact, even though web access could be easily restricted technically, the large availability of images and information on the web makes such limitation pointless in many instances. Moreover, a decision to limit access (for example, making it on-demand) may well contrast with the institutional mission of museums or

¹ More in general, the effects of technology on the demand and supply of heritage goods are investigated by Giardina et al. (2015).

² However, digitisation lowers the access cost as it can be accessed from remote location.

³ An interesting example is the Mayan archaeological site of Calakmul in Mexico, which UNESCO declared as a World Heritage site in 2002 (Peacock and Rizzo 2008).

archives for open access. Websites of those cultural institutions have the goal of enlarging the number of users, allowing anyone to visit virtually while being at home, expanding the range of sources of information about heritage, increasing consumers' knowledge and, therefore, improving their critical appraisal.

Differences occur across different institutions also in relation to the distinctiveness and costs of the service. The digital service is commonly directed to satisfy a demand for 'virtual' visits in the form of entertainment. On the contrary, a specific demand that asks for a high standard of precision, completeness and swiftness, coming from researchers or professionals, may induce price exclusion. This occurrence may be more frequent in case of archives or libraries. For instance, Navarrete (2013a) recalls that the city of Amsterdam's archive offers digitisation on demand and charges a higher price for higher image resolution, a rush fee for processing requests in less than 2 weeks and a fee for access from home.

Digitisation, then, broadens the set of users but also causes an overlapping supply of two rather different cultural good or service, of 'hard' (real) and 'digital' kind. This phenomenon raises the question whether digitisation exerts either a substitution effect on real visits or a complementary one. This question has no univocal answer, as it very much depends on the type of good under consideration. After all, the enjoyment deriving from the real experience of visiting a museum or a heritage site can hardly be substituted by a digital copy of a painting or by a virtual tour. Therefore a relationship of complementarity between the 'hard' and 'digital' is more likely to arise.⁴ A rather different situation emerges in the case of other cultural institutions such as archives or libraries. Access to a digitised document may be understood as more equivalent to the vision of the original document, depending on the quality of the digitisation and the goals of the research. However, it is worth mentioning that the use of 'virtuality' as a tool for the valorisation of heritage is not unanimously accepted by experts who claim that it might downgrade the 'high' character of heritage.

2.3 The Case of Public Archives

In general, we could say that digital environment enhances the economic potentialities of the cultural sector. Bakhshi and Throsby (2012) emphasize the creation of new and diversified cultural products, the development of new cultural heritage experiences. The digital world improves the possibilities of contextualising cultural heritage, which has always been important for understanding its impact. Technology makes this contextualizing easier and wider in scope. Furthermore, the availability of metadata allows users to create their own virtual collection and learn the stories related to the items. In addition, other benefits arise from knowledge

⁴ In presence of visits motivated by entertainment, Peacock (2006: 1138) argues that technological changes are likely to create a 'globalization of culture', generating international mobility of artistic production and exhibition, as well as of tourists and increasing the demand for heritage.

transfers and from a technologically dynamic creative economy. For example, some museums, such as the Metropolitan Museum of Art in New York or the Rijksmuseum in Amsterdam, provide open access to content (text, video, photo, music) generated by museum visitors in social networks, encouraging exchanges and communication among people. As Clough (2013) suggests, cultural institutions also face a big opportunity, using their content and new technologies to reduce the increasing disparity between the educational opportunities available to children in upper income groups and those of lower income groups.

This brief analysis suggests that archives are the form of cultural heritage that is likely to benefit most from digitisation for several reasons. Leaving aside the benefits deriving from the improvement in preservation and the reduction of costs for maintenance (which have to outweigh the costs of digitisation), which are fairly common issues for all forms of cultural heritage although with a different scope, there are some matters that distinguish public archives from others in terms of digitisation. First, regarding the consumption of their services, digitisation transforms a substantially private service (rival and excludible) into a collective one available to anyone at the same time. A digitised archive then requires the application of different efficiency conditions with respect to its 'real' counterpart. Second, an archive is likely to be used by experts, such as researchers and professionals. They may however have different expectations about the quality of the digitised documents. A lawyer, for example, may be interested in the pure content of the text, whereas a researcher may also be interested in a detailed high-quality reproduction of the whole document. This suggests that, digitisation allows for product differentiation, with more definite images available upon request. Finally, the problem of the prevalence between substitution and complementary effects is somewhat more marginal for the archives than for the contents of museums or archaeological sites. In fact, this problem is practically non-existent for those who are concerned just with the content of the text. A digital copy is fully equivalent to the original for their purposes, whereas it may be relevant for the usage of images contained in the document. On the one hand, the original prevails for the more comprehensive enjoyment of the artwork; on other hand, the intelligibility of small miniatures is improved by a digital image able to magnify small details.

3 Digital Projects on Cultural Heritage: An Overview

3.1 Background

After having highlighted some theoretical issues concerning the impact of digitisation on the supply, utilisation and conservation of cultural heritage, especially for the case of public archives, this section reviews the main digital projects in Europe and Italy that are related to the issues investigated here. Digital technologies have become increasingly important in the field of preservation and utilisation of cultural goods. Recently, the EU has undertaken several projects involving the application of such technologies, which include the digitisation of

tangible and intangible cultural heritage and the use of Information and Communication Technologies (ICT) to improve: the conservation and preservation of cultural products; the digital and physical access as well as tourism; and the management of heritage throughout Europe. Following this example, many countries have adopted formal strategies and new practises to enhance the use of new technologies and, as far as Italy is concerned, the MiBACT introduced several programs accordingly. In this Section, we provide a brief overview of these projects, starting at European level programs, and show their state of the art, including details on the degree of digitisation, with a specific focus on Public Historical Archives (PHAs).

3.2 European Projects

By the end of the 1990s, the use of digital technologies to cultural heritage has spread in Europe and has resulted in several projects developed at national and continental levels. The *European Library* (2005) represented the first large program involving the collection of metadata belonging to several institutions (national libraries) across Europe. Following that, in 2008, the European Commission launched the first version of *Europeana*, the internet portal collecting metadata on cultural heritage preserved by several institutions.

Europeana aims at enhancing the spread of culture throughout Europe by storing in a single portal all the contextual information related to the cultural products preserved by all its cultural institutions. The ambition is to allow the public (i.e. students, researchers, tourists, etc.) to easily find any item they are searching, and to promote programs of digitisation of cultural resources. The process of digital indexing and metadata production moves from cultural institutions, which in turn provide such data to *Europeana*, and it is currently far from being complete. Yet, the portal provides access to about 40 million digitised items of different types, including images, text, audio, and 3D files from all European countries. Since digitisation procedures are not straightforward, international standards have been applied to have homogeneous metadata, thus forcing institutions to use common procedures. Moreover, *Europeana* uses the Linked Open Data (LOD) paradigm, a technique for publishing data on the internet that allows to connect related data and make them freely accessible.⁵ Through digital projects such as *Europeana*, the EU aims at promoting universal access to cultural heritage,⁶ leading providers of cultural goods across Europe to change their practices according to international standards for data indexing and storage.

⁵This is in line with European Commission Recommendation of 27 October 2011 ‘on the digitisation and online accessibility of cultural material and digital preservation’, which stresses the importance of re-using digitised material as a tool for economic and cultural development in the EU.

⁶See on this point the European Commission Recommendation of 27 October 2011.

3.3 Italian Projects

In line with the above mentioned European programs, several projects have been carried out in Italy by the MiBACT, involving the use of ICT to improve the management of public institutions devoted to the preservation and conservation of cultural products and lessening the digital divide across cultural institutions within the country,⁷ and favour the utilisation of cultural products by the public. Such projects include the introduction of common procedures for information technology management; the use by the MiBACT and other cultural institutions of website and social media to facilitate and promote cultural events, the physical and digital access to cultural products as well as tourism; the digitisation of tangible and intangible heritage and the production of new digital products; the use of digital technologies (such as photo stitching and time lapse) to create digital representation of cultural sites to be browsed online; and the creation of national aggregators, in line with the abovementioned *Europeana*.⁸

In 2008, the MiBACT launched the *CulturaItalia* portal, which is held by the Union Catalogue of Italian Libraries (ICCU). *CulturaItalia* is integrated in *Europeana*, following the same mission at the national level: it aims at promoting Italian cultural heritage, providing a virtual access point to all the cultural products held by Italian institutions, and enhancing the process of digitisation of cultural resources. It is a national aggregator, which includes about 2.5 million items from 32 public and private partners, including other aggregators, as well as editorial articles where items, collections, cultural events and providers are described (Caffo 2014). It is an 'open' system since partners continuously upload digitised products which are in turn exported into *Europeana* (Di Giorgio 2014). Following the LOD paradigm, metadata is also available through a data management project run in 2012, the *dati.culturaItalia.it*, which is still under development, and includes metadata from a selected number of providers associated to *CulturaItalia*.⁹ As well as its continental level counterpart, *Europeana*, the amount of available resources depends on indexing and digitisation procedures run by its thematic partners and cultural institutions that own the original items. So far the extent of metadata provided by *CulturaItalia* is rather limited compared with the original ambitions of the project.

⁷ In general terms, digital divide is the structural geographical difference in the use of digital technologies both on the supply and demand. Evidence of such a phenomenon within Europe and Italy, can be found in Vicente and Lopez (2011).

⁸ A comprehensive overview of such projects, including related links to all the programs can be found in MiBACT (2015).

⁹ Other relevant related programs are: the *Internet Culturale* (IC), a web portal, online since 2005, held by Union Catalogue of Italian Libraries (ICCU), which provides access to digital material and catalogue databases from Italian libraries and other relevant cultural institutions; and *MuseiD-Italia* program, which aims at building an analogous portal including metadata on Italian museums. All these projects are, in turn, integrated in the national and European level aggregators, *CulturaItalia* and *Europeana*.

In this chapter, we focus attention on Italian Public Historical Archives (PHAs). According to the latest edition of the *Culture in Italy basic figures 2014* (MiBACT, 2014), the annual report of summary statistics on cultural utilisation and preservation in Italy, archivist institutions in Italy include: 100 PHAs, one Central State Archive and other 34 historical archives under the MiBACT, 8250 local authorities archives, about 50,000 other archives held by public institutions and 4609 state-controlled private archives.

PHAs preserve 1,352,185 parchments and 13,805,410 folders, volumes, registers, etc. To promote the digitisation of such a robust quantity of cultural heritage and the digital access to the products conserved by all archivist institutions, the MiBACT supported the creation of state archives websites, which have been gathered in the MiBACT web-domain (beniculturali.it). It also established the Central Institute of Archives (ICAR), which is devoted to the management, development and harvesting of the archival information systems and run the *National Archivist System* (SAN), a national web aggregator which collects metadata in line with the abovementioned European protocols and is integrated within the national aggregator *CulturalItalia*, the European archivist aggregator *Archives Portal Europe* (APEX) and *Europeana*.¹⁰ The SAN is an open system which is uploaded as soon as the indexing and digitisation of cultural resources carried on by any archivist institutions progress. PHAs represent the most relevant sources of the whole archivist heritage and in recent times have been driven to improve their practices moving towards the use of digital technologies. They have been compelled to create and hold their websites, within the MiBACT's domain, and to proceed with the digitisation of the documents that they preserve. The progress of such new practices is still heterogeneous. While almost all the PHAs run a website, which include basic information such as opening times, and a list of provided services, the digitisation process is still at the beginning. The next section provides an overview of digitisation programs in cultural institutions in Europe and Italy with a specific focus on PHAs (Fig. 1).

3.4 Digital Projects for Public Historical Archives

We draw data from *Enumerate Core Survey 3*, a database founded by the European Commission to collect data on digitisation programs, digital preservation and digital access to cultural heritage in Europe, to compare the extent of digitisation

¹⁰The SAN includes about 800,000 archivist resources. It was been instituted in 2011 in order to: (i) offer a unique online access point to the Italian archivist heritage and a digital library, which provide digital products and all the metadata; (ii) make available to the general public complete information on the cultural products held by archives, on their producers and providers as well as on their accessibility; (iii) guarantee the use of common protocols for indexing, description and photographic reproduction of cultural products; (iv) produce integrate archivist thematic portals and the harvesting of all the archivist systems.



Fig. 1 Visual representation of Italian aggregators. *Notes:* IC stands for Internet Culturale, the librarian resources aggregator, SAN is the archives' resources aggregator and Museid Italia is the aggregator for museums' resources

in Italy and in EU.¹¹ The dataset suffers from missing values and the sample itself is not representative, thus findings reported in the next sections have to be considered cautiously. Moreover, there are no available data for several countries with respect to archives. In what follows we consider the subsample of those countries for which there are at least two archives in the sample.

Sixty percent of the institutions collect born digital material, while this percentage was barely above 50 % in the two previous surveys. The survey also included information on digital access. It emerges that web statistics are the primary means used by institutions to monitor the access to their metadata and digital objects. Table 1 shows the average data for all of the sample and the subsample of archives and allow us to draw some preliminary insights in a comparative perspective on the use of digital technologies and, more in particular, on digital indexing (which is connected to the development of *Europeana* and parallel national level projects) and digitisation. On average, the 58 % of collections has been digitally catalogued. Moreover, only the 22 % (12 % in the subsample of archives) of collections have

¹¹ More in depth, Enumerate Core Survey 3 is the third edition of a European survey monitoring the status of cultural heritage in Europe. One thousand and thirty institutions belonging to 32 European countries participated to this third round (participants to Core Survey 2 are about 1400). The dataset includes information for each institution in 2015 with respect to: the state of digitisation activity, the dimension and characteristics of collections, digital access, preservation strategy and expenditure. Institutions are distinguished in four types (Museum, 34.47 %; library, 33.59 %; Archive/record office, 21.12 %; other type, 10.78 %). Almost all institutions have collections to be preserved and 84 % have a digital collection (this percentage was 83 % in Core Survey 1 and 87 % in Core Survey 2). See Stroeker and Vogels (2014) and Nauta & van den Heuvel (2015) for a detailed analysis on the extent of digitisation in Europe and on latest versions of Enumerate Core Survey.

Table 1 Impact of digitization on archives

Country	Collection already indexed (%)		Collection already digitised (%)		Collection to be digitised (%)	
	All sample	Archives	All sample	Archives	All sample	Archives
Austria	60.15	50.63	24.46	27.63	49.15	38.00
Belgium	64.29	56.67	23.86	5.67	45.00	25.00
Czech Republic	69.29	57.50	22.86	22.50	49.29	42.50
Estonia	74.00	71.50	15.89	10.75	65.44	71.50
Finland	53.77	64.60	28.60	45.00	36.33	16.40
Germany	51.29	55.11	15.71	14.05	39.54	33.84
Hungary	47.91	15.00	13.87	2.00	44.09	25.60
Iceland	57.63	50.00	24.63	20.00	56.44	36.40
Italy	54.95	54.00	31.50	11.50	45.21	63.50
Lithuania	19.82	22.00	15.19	2.88	67.91	70.13
Netherlands	75.30	72.67	29.74	8.87	41.70	31.77
Portugal	56.12	49.00	20.64	13.86	71.22	83.83
Slovenia	61.82	51.25	19.98	2.00	50.31	16.25
Spain	63.35	56.42	27.06	16.78	51.39	63.78
Sweden	47.83	48.75	14.97	8.00	52.70	44.15
Switzerland	70.29	63.33	17.90	4.67	35.15	31.50
<i>Sample average</i>	58.29	55.00	22.85	12.81	48.98	45.45

National level average—year 2015

Source: Enumerate Core Survey 3

been digitised so far and more than 49 % of preserved heritage has to be digitised. Thus, in spite of the several projects, the digitisation process is still in its early stages and its scope is heterogeneous, ranging between 2 and 31 %. Interestingly, different digital procedures are not introduced at the same time. This is not surprising since digital indexing is required for digitisation; however, it also indicates that the introduction of new technologies is a stepwise process, which gradually involves more complex practices. The adoption of digital technologies on the management of archives is slightly lower (55.00 % of collections are already indexed and 12.81 % are digitised) and more heterogeneous than overall average in terms of indexing.¹²

As far as Italy is concerned, only five (anonymous) archives are included in the *Enumerate Core Survey 3*, an even smaller sample than in *Core Survey 2*, which included nine Italian archives.

An extensive analysis of the actual magnitude of the use of digital technology in Italian archives is performed in the next section using a larger and more

¹²This is consistent with Borowiecki and Navarrete (2015)'s empirical findings based on the *Enumerate Core Survey 2* data.

comprehensive dataset. However, some preliminary findings can be drawn by comparing Italian data with European counterparts. According to this survey, indexing and digitisation in Italian archives are close to the sample average. With respect to the previous survey edition (Core Survey 2: 38.56 % already indexed and 8.00 % already digitised), Italy reduces the distance to its counterparts. However, it must be noted that Core Survey 2 included a larger number of observations.

The Italian archives' average share of collections already indexed is lower than 54 % (it was 40 % in Core Survey 2), and more than half of collections have to be digitised in the future. Such preliminary findings highlights that, although Italy was one of the first countries in Europe in developing digital projects, the actual extent of the adoption of such technologies in archives is lower than other European countries. The question is to ascertain whether such a gap is homogeneous or depends on the digital divide that characterizes Italy. To analyse this issue the next section will present results drawn from an original survey conducted on Italian PHAs as well as on data on digital access to Italian PHAs' websites. The extent of digital consumption (digital access) is reported in Table 2. Again, apart from the substantial heterogeneity in Europe, only offline procedures for digital access have been developed so far, while online access is still at the beginning. Italy shows, in this case, levels of provision in line with the European average.

4 Use and Drivers of Digital Technologies Diffusion: A Survey of Italian Public Historical Archives

As previously illustrated, digital technologies can be applied for different purposes, and to a different extent in the preservation and utilisation of cultural goods. The range goes from: the use of personal computers for administration purposes; to the application of the most advanced photographic technologies in order to obtain high resolution; to digital scans of paintings and drawings; or to 3D virtualisation of archaeological sites; or to the use of advanced software for in-time data collecting data and monitoring.

In this section, we focus on two specific applications of these technologies in Italian public historical archives: the use of internet websites; and the digitisation of documents. These two applications are of primary importance in the context of conservation, preservation and utilisation of collections held by PHAs. The use of a website guarantees publicity of basic information (opening times, address, provided services, index of preserved material) and prompts the diffusion of advanced services, including digital access. Digitisation of documents prompts the development of the abovementioned national and European-level projects (*CulturalItalia*, *Europeana*, etc). To analyse the scope of these two applications we conducted an empirical analysis for PHAs operating in Italy by using different data sources: data on physical access and PHAs characteristics was drawn from the *Sistema Statistico Nazionale* (SISTAN) that include official statistics; data on the year of foundation of PHAs' websites was drawn from the *Internet Archive—Wayback Machine*, a web repository including snapshots of websites and by browsing archives' websites;

Table 2 Extent of digital access in archives

Country	Offline	Institutional website	National aggregator	Europeana	Other aggregators	Wikipedia	Other social media
Austria	49.04	51.21	9.50	9.69	25.83	2.08	10.50
Belgium	54.67	32.00	0.00	12.50	15.00	2.50	2.50
Czech Republic	53.57	70.00	35.00	41.50	14.00	1.00	1.00
Estonia	50.33	67.43	39.63	11.29	17.17	3.83	5.50
Finland	54.25	53.35	25.26	7.86	10.94	2.00	3.33
Germany	32.79	36.39	17.21	21.34	19.80	0.24	0.33
Hungary	35.90	65.22	14.67	4.30	20.56	2.86	8.83
Iceland	6.62	46.00	16.83	2.50	2.50	0.00	0.17
Italy	32.38	72.61	20.53	12.25	14.17	1.94	9.89
Lithuania	44.58	17.41	21.96	21.04	1.71	1.15	2.43
Netherlands	36.56	53.34	21.24	16.41	10.67	1.11	2.44
Portugal	37.34	53.83	31.25	20.89	8.67	20.00	16.56
Slovenia	60.29	49.31	32.14	20.89	11.60	5.38	7.62
Spain	27.55	61.16	38.14	38.22	24.98	0.92	5.09
Sweden	47.49	64.64	35.18	28.63	10.02	3.40	2.29
Switzerland	51.50	47.63	25.00	2.56	0.08	1.13	0.77
Sample average	35.74	54.78	21.93	16.14	15.46	0.96	2.30

Estimated percentage of all digital objects available for type of access. National average

Source: Enumerate Core Survey 3

data on the use of internet was drawn from access statistics of all available Italian websites (83 websites in 2013), provided by the MiBACT; data for the analysis on digitisation was drawn from an original survey of 31 PHAs and local sections operating in Italy. The survey was carried out in 2014 and targeted managers of all Italian PHAs. Although the sample is larger than *Enumerate*, it is still partial and all findings reported have to be considered cautiously.¹³ This survey provides information on the characteristics of PHAs (i.e. size, type of activity, location), typology of digital project, as well as on how decisions eventually leading to adoption were made and so on.

4.1 Some Preliminary Findings

We start by showing general data on PHAs (Table 3), which indicates relevant differences at the regional level in terms of dimension, thus confirming structural geographical differentiation within the country (data reported in relative terms, that is, per PHA): in general, PHAs located in the North and in the Centre of Italy are larger in terms of surface area and shelving provision, but have, on average, a lower number of workers. At the same time, the number of items per inhabitant varies across regions, showing the highest value in the Centre.¹⁴ An analogous geographical divergence emerges on the demand side by comparing the number of visitors and consultations and these are considerably lower in the South. The average values for the number of years since a website has been used seem, conversely, to deny the presence of a strong digital divide on the supply side, although the average value, in this case, hides a very large variability in the sample.

4.2 The Use of Internet Websites

We used data drawn from website statistics to analyse the extent of the use of websites by Italian PHAs. The dataset included information on all the available PHAs websites in the MiBACT's web domain in the period 2010–2013 and several PHAs websites with different domains. Although websites are a low cost technology which spread very fast in the last decades, relatively few PHAs used them in 2010. In fact, in 2012, the MiBACT undertook several projects to support the adoption of digital technologies, including the usage of websites by PHAs. The large majority of websites have been then included in the MiBACT's domain,

¹³ We thank the General Direction for Italian Archives for the support in the collection of the data used in Sect. 4.

¹⁴ Items include, in this Table, the number of manuscripts and documents, which represent the core of Italian archives' collection and provide a measure of the quantity of objects preserved by such institutions. PHAs conserve also negatives, microfilms, pictures, etc. and several copies and backups of the same item, which we do not consider in order to avoid biased evaluations.

Table 3 Information on Italian PHAs' characteristics

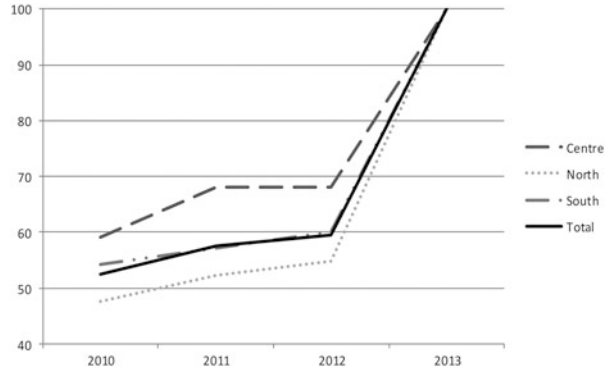
Regions and area	Number of PHAs	Number of subsections	Shelf per PHA (linear meters)	Personnel per PHA	Items (number of manuscripts and documents) per PHA	Number of visitors per PHA	Consultations per PHA	Number of years since website	Items per 1000 inhabitants
Emilia-Romagna	8	3	20,990.75	19.38	138,028.75	2659.63	740.63	4.25	254.31
Friuli VG	4	0	11,003.50	12.00	80,747.25	1565.75	714.25	4.50	264.97
Liguria	4	2	9588.75	16.75	105,583.75	2066.50	503.75	3.00	268.88
Lombardia	9	0	13,517.56	15.00	141,663.11	2843.44	915.00	1.22	131.38
Piemonte	8	1	20,206.25	17.75	146,760.50	4440.75	4426.63	4.50	269.04
Trentino-Alto Adige	2	0	7454.00	8.00	56,531.50	921.50	361.00	5.50	109.83
Veneto	7	1	19,889.43	23.29	152,576.57	4711.00	1461.71	4.00	219.89
North	42	7	16,374.69	17.29	130,469.17	3136.74	1557.12	3.57	201.36
Lazio	5	1	12,981.80	32.00	257,528.80	3723.40	1137.00	5.20	233.99
Marche	5	4	12,657.40	21.20	109,077.60	2201.80	599.60	2.00	353.84
Toscana	10	2	16,423.40	20.30	140,040.10	3093.40	1293.10	9.10	381.35
Umbria	2	5	19,609.50	54.00	153,600.50	4885.00	1176.50	1.50	347.41
Centre	22	12	15,074.95	26.23	160,937.91	3196.82	1089.41	5.91	305.21
Abruzzo	4	3	11,703.25	27.25	103,896.75	2050.25	910.25	5.50	317.90
Basilicata	2	0	9511.50	24.50	94,595.50	1653.00	493.50	0.00	327.30
Calabria	4	4	9195.00	44.50	86,820.75	2357.75	1140.50	7.75	177.27
Campania	5	0	19,803.40	39.60	165,055.60	2359.00	1392.20	7.20	143.11
Molise	2	0	5912.50	36.00	66,251.50	1143.00	470.00	0.00	422.44
Puglia	5	3	16,744.20	47.60	152,301.80	3051.80	1536.80	7.60	187.91
Sardegna	4	0	4031.75	15.50	86,124.00	1590.50	431.75	6.50	210.14

Sicilia	9	5	13,092.33	27.44	114,337.89	1381.89	494.89	0.44	205.69
<i>South</i>	35	15	12,318.20	32.94	115,568.23	1973.63	884.46	4.49	196.17
All sample	99	34	14,651.75	24.81	131,971.99	2738.89	1215.37	4.41	219.83

Regional and Macro-area average—year 2013

Source: SISTAN

Fig. 2 Percentage of PHAs having websites. 2010–2013.
 Source: our computation



beniculturali.it. As a consequence, the number of PHAs using website dramatically increased after 2012 (Fig. 2).¹⁵

However, the presence of a website is only a rough measure of the use of digital technologies for at least two reasons: it does not say anything about the extent of digitisation or digital indexing; and a website can be used to provide a potentially wide range of services, from general information on the archive (address, opening times, etc.) to the direct provision of services such as digital access. In fact, strong geographical differences emerge in the website usage as shown in Fig. 3, which displays the number of website visitors per PHA in the three areas in 2013: visitors are defined as uniquely identified client (IP) who accessed at least a page in that period. Although it represents a demand-side measure, it should be noted that it depends strictly on the amount and quality of pages and services provided by the website.

As previously mentioned, digital projects undertaken by European and national institutions aim to enhancing universal access to cultural goods, through increasing physical and digital access. To analyse whether the introduction of digital technologies has been effective in this sense we look at the dynamics of physical (Fig. 4) and digital (Fig. 5) access in Italian archives.

We use four measures of physical access: number of presences, number of for-studying and not-for-studying consultations and number of archival groups consulted; and two measures of digital access: the abovementioned number of visitors and the number of visits, the latter referring to visitors accessing at least a page and who did not access other website pages in the previous 60 min. Comparing Figs. 4 and 5, it appears that physical access did not change notably while digital access increased dramatically in total values. One may claim that such dynamics imply a more diffuse access to cultural products preserved by Italian PHAs. However, the reader should be reminded that online access to cultural material is still rather limited. Therefore, the results could be due to the increasing number of websites rather than an increasing supply of digitised material.

¹⁵ Note that the number of PHAs did not change in this interval.

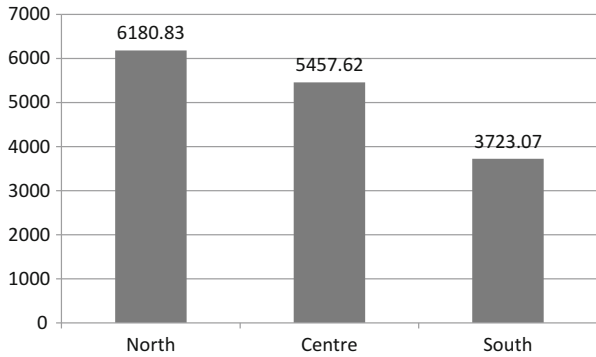


Fig. 3 Website visitors per PHA—PHA average value per area—2013. *Source:* our computation on websites' access statistics

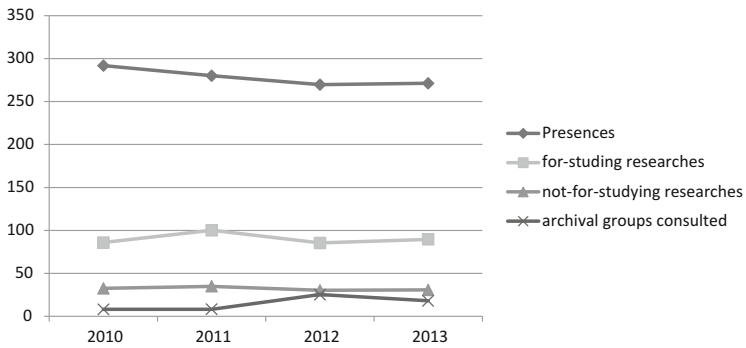


Fig. 4 Physical access—2010–2013—Total values in thousands. *Source:* our computation on SISTAN data

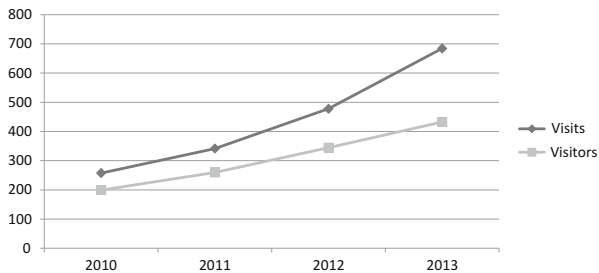
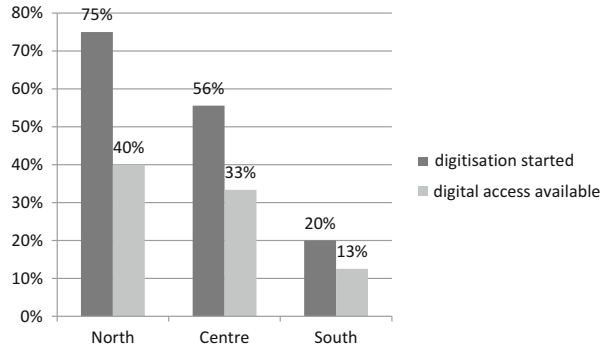


Fig. 5 Digital access—2010–2013—Total values in thousands. *Source:* our computation on websites' access statistics

Fig. 6 Digitisation and digital access. Percentage by area. *Source:* our computation



4.3 The Extent of Digitisation in Italian Archives

To investigate the actual scope of content digitisation in Italian archives, we use data drawn by the original survey that we conducted in 2014 that includes 31 observations. Respondents are quite homogeneously distributed in the three geographical macro-areas and represent 23 % of PHAs and local subsections in Italy (24 % of the PHAs in the North, 26 % of those located in the Centre, and 20 % of those in the South). Figure 6 shows the percentage of PHAs that started a process of digitisation and allows for digital access online as area percentage. The adoption of digital technologies in Italian PHAs clearly appears not to be homogeneous between these areas: digitisation reaches 75 % in the Northern area but digital access is still very limited in the country overall.

A digital divide therefore exists in the provision of digital services and, more significantly, in the progress that PHAs have made in starting the process of digitisation of the items they preserve. Note that this is consistent with previous findings on geographical differences across areas in website visits (Fig. 3). At the same time differences also occur in physical access (see columns seven and eight in Table 3). Not only the quality of PHAs collections and the extent of their digitization but also the education level, income and social capital are relevant to explain the above differences.

5 Conclusions

This chapter highlights several aspects concerning the introduction of digital technologies in the management of Italian PHAs and in the conservation, preservation and utilisation of their cultural heritage. From a theoretical point of view, the characteristics of PHAs raise interesting questions regarding the definition of efficiency condition transforming a rival and excludible good into a potentially pure public good. An additional important issue is whether digital access is either a complement or substitute to the real one.

Here we also investigate issues related to ICT for Italian PHAs. The analysis does not allow us to draw clear-cut conclusions because of the quantity and the quality of available data but, nevertheless, some tentative conclusions can be drawn. In general, the spread of ICT in European cultural institutions is still limited although the first projects started several years ago and several programs at continental and national level have been launched since then. The absence of an adequate system of incentives may help to explain the slow advance in the production of metadata by cultural institutions and their provision to national aggregators and from them to *Europeana*. Moreover, from a different perspective, recent severe budget constraints in the public sectors in the EU may have played a relevant role in slowing down ICT implementation that, conversely, would require substantial investments. Furthermore, the fragmentation of available resources across several programs, not always sufficiently coordinated, may undermine their effectiveness.

The impact of the abovementioned issues is likely to be even more critical if we consider the peculiarities of the ICT implementation. In fact, our analysis highlights that the introduction of ICT is a long-term stepwise process involving the coordination of several actors operating in different institutions and levels. This is particularly true for PHAs, which were shown to be resistant to adapting their practises to a changing environment of ICT. Regarding this issue, we find that only basic technologies, such as indexing, have been introduced in the management of PHAs while more complex advancements, such as digitisation and on-line access are still at a preliminary stage. This happened in Europe as much as in Italy, where the MiBACT supported the spread of ICT in PHAs, leading mainly to the general adoption of some unsophisticated practices, such as basic websites.

However, Italy is characterized by considerable geographical differences in supply and demand. Differences emerge on the demand side, in terms of number of visits and visitors to archives' websites. This might be just partially connected with geographical gaps in economic and social conditions, with a relevant role played by human capital accumulation, but also with the differences in the provision of digital services and in the extent of digitisation of PHAs' collections. These differences call for enhancing the effectiveness of the existing programs and strengthening the system of incentives toward digitisation. Furthermore, consumption of digital services has not increased substantially whereas the intensity of usage has indeed grown, mainly because of the proliferation of websites. As for physical consumption, this stays virtually unaffected. The fact that digital services are yet to be developed in a meaningful way does not allow us to draw conclusions on the relationship between physical and digital utilisation for Italian archives.

As a final point we would stress the importance of data collection as a tool for monitoring the progress in the implementation of ICT in the field of cultural heritage management. As ICTs requires a radical change in practises and considerable investments, policy-makers need to have complete and up-to-date information to fine-tune policies and develop effective programs. The limited participation to *Enumerate*, even reduced in the last edition, suggests that voluntary provision of data is not effective, at least in the absence of a system of incentives. This calls for incorporating data collection in the design of new programs to guarantee a complete flow of information during the implementation stage.

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Copyright, Cultural Heritage and Photography: A Gordian Knot?

Frederik Truyen and Charlotte Waelde

Abstract

EuropeanaPhotography was a project funded by the European Commission with the remit to digitise photographic collections from museums, libraries, archives and photograph agencies, and to make the digitised images available via the European portal, Europeana. The collections spanned 100 years of photography from 1839 to 1939 and many of the photographs depicted individuals and family life during these 100 years. In this contribution we explore the experiences of members of the consortium as they sought to navigate what are considered to be the complexities of copyright as it applies to digital photography. Of particular concern to many members of the consortium was (a) the desire to protect (family) privacy against commercial exploitation; (b) a concern to safeguard the authenticity and integrity of our cultural heritage; and (c) the perceived need to protect existing business models. This chapter discusses the challenges that members of the consortium faced and how they dealt with the challenges as they arose. Finally, the chapter suggests that the copyright strategy developed for the RICHES project that encourages cultural heritage institutions to think about their digitisation programmes first through the human rights lens to culture and cultural rights, and then ask how copyright may be used as a tool to meet those aims. While it is not suggested that such an approach could resolve all of the copyright conundrums that arise in this sector, what it could do is to help stakeholders to think differently about issues involved.

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1 Introduction

Copyright law underpins a host of creative activities. From artworks through to photographs and computer software, copyright laws have been developed over many years with a view to incentivising creative activities. The theory is that because the author is given exclusive rights over exploitation of the subject matter of the right, so she can trade those rights with others in return for financial or other gain. So, according to Anglo-American theory, she has the economic incentive to create and invent more. While continental Europe also sees the economic incentive of copyright to be important, equally, if not more important are the moral rights—*droit moral* in France and *Urheberpersönlichkeitsrecht* in Germany—which spring not from economic concerns, but from the inalienable link between the work and the personality of the author and which reflect that inalienable link.

While the true effect of the economic incentive embedded in copyright may be debated among scholars, there is concern over the reality of the ways in which the law impacts on activities within its purview, including those undertaken by libraries, museums and archives, organisations which face specific challenges most particularly when seeking to digitise cultural heritage collections and to make them available for re-use. These challenges will be investigated in this paper with specific reference to the activities undertaken by a European funded project: *EuropeanaPhotography*.¹ *EuropeanaPhotography* (EUROPEAN Ancient PHOTOgraphic vintaGe repositoRies of DigitAized Pictures of Historic qualitY) was a project with 19 members from 13 member states of the EU encompassing highly prestigious photographic collections from museums, libraries, archives and photograph agencies. The collections covered 100 years of photography from 1839 to 1939. The project was funded within the European Competitiveness and Innovation framework programme 2007–2013 and ran for 36 months, from 1 February 2012 to 31 January 2015. Its activities continue under the *Photoconsortium* banner.²

EuropeanaPhotography is not the only publicly funded project to have encountered challenges with copyright law. Other EC-funded projects also aimed at the creative reuse of cultural heritage have tackled copyright related issues. These include *EuropeanaSpace*³ and *RICHERS*⁴ both of which have interesting experiences to bring to the copyright and cultural re-use debate and both of which will be noted at appropriate points in this chapter.

¹ <http://www.europeana-photography.eu>

² <http://www.photoconsortium.net>

³ <http://www.europeana-space.eu>

⁴ <http://riches-project.eu>

2 The Copyright Framework

There is not one single international copyright law, but a web of laws at international, regional and domestic levels. At international level, the oldest treaty is the Berne Convention for the Protection of Literary and Artistic works 1886. This treaty, which specifies certain minimum standards of copyright protection which signatory states must implement in their domestic laws, was agreed by the international community in response to the ‘pirating’ of the works of, among others, Charles Dickens.⁵ Dickens, whose works were protected in the UK, found that copies were being made in the US. Dickens could not stop these copies being made because copyright law is territorial: in other words, copyright law is only effective in the territory in which it is enacted. So the current UK copyright law—the Copyright Designs and Patents Act 1988 (as amended) (CDPA) is only effective in the UK (and the territories to which it is extended by statutory instrument); the French Intellectual Property Code of 1 July 1992 extends to French territory; the German Copyright Act of 9 September 1965 (as amended) extends to Germany. The Berne Convention introduced the principle of national treatment. This means that every state that signs up to the Convention will treat the nationals of every other signatory state in the same way as they treat their own nationals. So, for example, both France and the UK are signatories to Berne. Therefore a French national, with regard to their copyright, will be treated in the same way in the UK as a UK national. So if a French author has her copyright infringed in the UK, she can sue in the UK in the same way that a UK national can. There are currently 168 countries signatory to the Berne Convention and who must incorporate the minimum standards of protection of copyright into their laws as mandated by the Convention. In this way there is a web of similar laws around the world for the protection of authors and their copyrights.

The Berne Convention is not the only international instrument. Other important treaties include the WIPO Copyright Treaty 1996 (WCT) and the Agreement on Trade Related Aspects on Intellectual Property Rights 1994 (TRIPs). The WCT was negotiated and agreed in response to the advent of digitisation and the internet and the challenges that brought for new ways in which works protected by copyright could be disseminated and the attendant difficulties for enforcement of rights. The Treaty includes a new ‘communication to the public’⁶ right for rights holders, and introduced technical protection measures and anti-circumvention rules.⁷ TRIPs is a trade treaty which, for the first time, linked copyright with trade. Perhaps the most graphic example of this is the absence of moral rights from its provisions and the focus on economic rights.

⁵ Peter K. Yu, *Intellectual Property at a Crossroads: Why History Matters*, 38 *Loy. L.A. L. Rev.* 1 (2004)

⁶ WCT Article 8.

⁷ WCT Articles 11, 12.

At European level there is a range of Directives applicable to copyright,⁸ the most important of which for the purposes of this chapter are the Information Society Directive⁹ (Infosoc Directive) and the Orphan Works Directive.¹⁰ The Infosoc Directive among other things contains the European interpretation of the provisions of the WCT including measures relating to the new economic right of communication to the public and the protection of technological protection measures. The Orphan Works Directive is the European response to the challenges posed by works protected by copyright, but for which the owner of the copyright cannot be found even after a diligent search.

The obligations to be found in International Treaties and Conventions are generally implemented into national legislation via national law. So for example in the US there is the general US Copyright Law¹¹ as well as the Digital Millennium Copyright Act of 1998.¹² (DMCA). The US implemented the provisions of the WCT in the DMCA. In Europe, the obligations to be found in international instruments are often translated into a Directive that in turn is implemented into national law. So the provisions of the WCT, for example, were incorporated in the Infosoc Directive which member states then implement in domestic legislation. In the UK for example, this was done by amendments to the CDPA.

There are a number of notable points that arise from this web of international, European and national measures relating to copyright. The first is that while economic rights are present in all of the measures, moral rights are not. TRIPs, as noted, has no provisions on moral rights within its Articles. Moral rights also differ markedly as between territories. While the US has some rights within its domestic law that are akin to copyright, the general consensus is that its domestic law does not contain even the minimum standards in relation to moral rights that are found in the Berne Convention. These are found in Article 6 bis of Berne and are:

Independently of the author's economic rights, and even after the transfer of the said rights, the author shall have the right to claim authorship of the work and to object to any distortion, mutilation or other modification of, or other derogatory action in relation to, the said work, which would be prejudicial to his honor or reputation

These rights are to last at least as long as economic rights in works.¹³ Similar to the US, the moral rights in UK domestic legislation are generally considered to be

⁸ There are copyright directives on: Management of Copyright and Related Rights; Copyright in the Information Society; Orphan works; Rental and lending rights; Term of Protection; Satellite and Cable; Resale right; Protection of Computer Programs; Protection of Databases; Protection of semi-conductor topographies; Enforcement.

⁹ The Directive on the harmonisation of certain aspects of copyright and related rights in the information society (2001/29/EC).

¹⁰ Directive 2012/28/EU of the European Parliament and of the Council of 25 October 2012 on certain permitted uses of orphan works.

¹¹ <http://copyright.gov/title17/>

¹² <http://www.copyright.gov/legislation/dmca.pdf>

¹³ Berne Convention Article 6 bis.

weak. They include the right to object to derogatory treatment and to claim authorship.¹⁴ However, they have to be asserted and may be waived. Other countries laws contain moral rights provisions that go well beyond the standards in these measures—France and Germany being examples. In France moral rights include the rights of divulgation, attribution and integrity,¹⁵ while in Germany they include right of dissemination¹⁶; the right of attribution¹⁷; the right of integrity¹⁸; and the right to access copies of the work.¹⁹ One of the prime results of this is the enduring ‘split’ ownership of works protected by copyright where there are both economic and moral rights. Economic rights can be assigned and/or licensed: that is the way in which the incentive operates as described above. But moral rights cannot be assigned as they attach only to the author. Furthermore, in many countries moral rights last as long as the economic rights,²⁰ while in other countries, moral rights are perpetual.²¹ All of this means that in a work protected by copyright there is ‘split’ ownership: the moral rights in a work vest only in the author while the economic rights may initially vest in the author but then can belong to a third party through assignation or licensing. If one then considers that ownership of the tangible work—the book; the painting; the film;—may then belong to someone else, so there may be three rights in a single work: the copyright owner, the moral rights belonging to the author; the tangible copy to a third party. Having split ownership, most particularly as between the economic and moral rights, means that the economic rights could be challenging to exploit as the moral rights of the author must always be considered on commercial exploitation. These thorny issues go some way to explaining why there has been no attempt at European level at harmonisation of moral rights. The passion generated by moral rights—and moral right like considerations—is well illustrated in the EuropeanaPhotography study discussed below.

A final introductory point needs to be made about the copyright framework: although the international and regional legislative instruments serve to approximate laws as between different territories and members states, the laws within individual territories do differ in form, substance and interpretation. The copyright laws—which are territorial as explained above—are interpreted and litigated before national courts where interpretations can and do vary. Certainly there are centralising influences: the Court of Justice of the EU (CoJ) for instance is the superior court in matters of interpretation of European Directives, but that court only has a say when a question is referred to it.²² And when the CoJ has interpreted

¹⁴ See Generally CDPA Chapter IV Moral Rights.

¹⁵ French Intellectual Property Code Art. L. 111-1.

¹⁶ German Copyright Act Art 12.

¹⁷ German Copyright Act Art 13.

¹⁸ German Copyright Act Art 14.

¹⁹ German Copyright Act Art 25.

²⁰ e.g. in the UK CDPA s 86.

²¹ e.g. in France, French Intellectual Property Code Art. L. 121-1.

²² When that happens is the subject of carefully crafted rules.

any particular question, the judgment often then has to be implemented by the national court. The way the judgment is implemented nationally may vary as between jurisdictions. All of this means that copyright law can and does vary not insignificantly as between territories, including those of Member States of the EU. This Gordian Knot of copyright laws and underlying cultural and socio-economic differences make pan-European projects which have high dependency on copyright—such as EuropeanaPhotography—challenging to implement in practice.

3 Copyright, Cultural Heritage and Photographs

Three broad themes recur in the discussion around the re-use of digitised photographs that contain family stories and which are considered to be a part of our cultural heritage.

These are concerns for the protection of:

- (a) (family) privacy against commercial exploitation;
- (b) the authenticity and integrity of our cultural heritage;
- (c) existing business models of cultural institutions.

In each case copyright is used as the means to control the re-use of the digitised photographic image albeit for different purposes. In the case of a and b, and even where the image might be in the public domain, commercial re-use is often prohibited to meet these goals and moral rights may be claimed; in the case of c. the business model is often the means through which the digitisation and curation of photographs is paid for and copyright may be claimed in the digitisation process. Each of these will be further explored below by reference to the experience of EuropeanaPhotography.

3.1 Copyright and Photography

The interrelationship between copyright and photographs in the cultural heritage sector raises two key questions. The first is as to whether copyright protects photographs. As will be seen, the question is not as straightforward as might be expected. The second key question is as to whether the digitisation processes results in a new copyright in the digitised photograph.

Copyright and photographs have something of an uneasy relationship. While photographs are often included in domestic legislation in the list of works that are protected by copyright²³ what has troubled policy-makers, commentators and

²³ e.g. CDPA s 4.2 which defines photograph as 'a recording of light or other radiation on any medium on which an image is produced or from which an image may by any means be produced, and which is not part of a film.'

courts over the years is the level of originality that the law requires for the subsistence of copyright and how this applies to photographs. While common law countries such as the UK have historically had a very low standard of originality for the subsistence of copyright in photographs,²⁴ this has changed, at least within Europe, where the standard for protection is now one of ‘intellectual creation’. This standard has been harmonised in Europe as a result of measures introduced in the Term Directive in 1993.²⁵

Article 6 of that Directive provides that:

Photographs which are original in the sense that they are the author's own intellectual creation shall be protected ... No other criteria shall be applied to determine their eligibility for protection.

Article 6 however goes on to provide that Member States may provide for the protection of other photographs. So there may be protection for two levels of photographs in Member States—ones that meet the standard of intellectual creation and are thus protected by copyright, and ones that do not but can be protected by some other unspecified (*sui generis*) regime. The level of originality required in a portrait photograph was considered by the CoJ in *Eva-Maria Painer v Standard VerlagsGmbH*.²⁶ Here the issue concerned photographs of a child who was abducted in 1998 when she was 10—Natascha K. Photographs of Natascha, taken by Ms Panier, were used in connection with an extensive police search. When Natascha escaped her captor in 2006 Ms Panier’s photographs were used, without her permission, by a number of newspapers. One argument by the newspapers was that no permission was needed for their use because there was no originality, in the European sense, in portrait photographs. The CoJ disagreed. The Court pointed to the requirement of intellectual creativity in Article 6 of the Term Directive and stated that an intellectual creation is an author’s own if it reflects the author’s personality. That would be the case if the author were able to express her creative abilities in the production of the work by making free and creative choices. In a portrait photograph this would be shown at various points: in the preparation phase the photographer could choose the background, the pose and the lighting. When taking the photograph she could choose the framing, the angle of view and the atmosphere. And when selecting shot the photographer could choose from a variety of developing techniques and software programs. In so doing the photographer can stamp her personal touch on the work.²⁷ Portrait photographs can thus be protected by copyright, as can other photographs be so long as the necessary element of intellectual creativity is present.

²⁴ *University of London Press Ltd v. University Tutorial Press Ltd* ([1916] 2 Ch. 601).

²⁵ Council Directive 93/98/EEC of 29 October 1993 harmonizing the term of protection of copyright and certain related rights.

²⁶ Case C-145/10.

²⁷ *ibid* paras 85–93.

But what of a photograph that seeks to replicate exactly existing artifacts which may themselves be in the public domain? This question is also the subject of quite some debate (and controversy). A key US case, *Bridgeman Art Library v. Corel Corp.*,²⁸ concerned photographic images of public domain works made by Bridgeman and in which Bridgeman claimed it owned the copyright. These were copied by Corel. Kaplan, the judge in the case, cited the main copyright treatise by Nimmer in the US that stated that a photograph lacks originality where ‘a photograph of a photograph or other printed matter is made that amounts to nothing more than slavish copying’. Unsurprisingly there was an outcry from many cultural heritage institutions after this finding and many attempts to limit its impact because of the reliance that such institutions place on the licensing of digital images for revenue. The situation may be different in Europe although it is far from clear especially where the intent is to make a ‘true’ copy of the original. In a judgment of the Austrian Supreme Court concerning photographs of grape varieties, the court said:

*What is decisive is that an individual allocation between photograph and photographer is possible in so far as the latter’s personality is reflected by the arrangements (motif, visual angle, illumination, etc.) selected by him. Such freedom of creation does certainly exist not only for professional photographers with regard to works claiming a high artistic level, but also for a lot of amateur photographers, who take pictures of everyday scenes in the form of photos of landscapes, persons and holiday pictures; also, such photographs shall be deemed photographic works, as far as the arrangements used cause distinctiveness. This criterion of distinctiveness is already met, if it can be said that another photographer may have arranged the photograph differently [. . .]. The two-dimensional reproduction of an object found in nature is considered to have the character of a work in the sense of copyright law, if one’s task of achieving a representation as true to nature as possible still leaves ample room for an individual arrangement [. . .].*²⁹

What is going to be key in deciding the originality—and thus the copyrightability—of photographs which seek to replicate faithfully public domain artifacts, is whether there is room for intellectual creativity allowing the author to stamp her own personal touch on the work.

So what of the digitisation process? Does this give rise to a new copyright in the digitised photograph? The majority of the partners in EuropeanaPhotography argued that the high-end digitisation techniques that were applied to the original photographs did create a new copyright. Their view was that the digital master obtained from the original yields an object with distinctive new properties. Given the effort required in the digitisation process—for instance manipulating the glass plates in such a way that the maximum amount of information is captured and rendered—substantial investment in equipment and expertise is necessary, all of which add to the costs of digitisation.

²⁸ 36 F. Supp. 2d 191 (S.D.N.Y. 1999).

²⁹ *O (Peter) v F KG* ([2006] ECDR 9) para 2.1.

But this argument seems to conflate two legal tests. One is the originality requirement for the subsistence of copyright as discussed above. The other is the investment criterion that is at the heart of other—mostly *sui generis*—intellectual property rights. The main one is the *sui generis* database right,³⁰ where there exists the right to control extraction and re-utilisation of the whole or a substantial part of the contents of a database where there has been investment in the obtaining, verification or presentation of the content.³¹ What this right seeks to protect is the investment that goes into the compilation of the database³²: the level of originality is irrelevant. However, and while an investment right may seem the most appropriate form of right for the digitisation of photographs, it is not one that is currently available in all countries. Some Member States have included measures protecting non-original photographs under the *sui generis* provisions discussed above,³³ which may help to protect the investment in digitisation.

So for EuropeanaPhotography, the position as regards copyright in photographs may be one that seems unanticipated by the team. The assumption is that some of the ‘original’ photographs used in the project are in the public domain. In other words, the author will have died more than 70 years ago and copyright will have ceased to exist in the photographs. Where photographs were taken of the original, and the intention was to be as faithful as possible to the original, then no copyright would subsist in the copy. The digitisation process would not result in a new copyright. The position with moral rights will differ depending on the jurisdiction. As noted above, in some jurisdictions moral rights last only as long as the copyright; in others they are perpetual.

How then can EuropeanaPhotography meet the three strategic goals outlined above—those of protecting (family) privacy against commercial exploitation; the authenticity and integrity of our cultural heritage; and existing business models? In the next section Europeana’s rights labelling campaign will be noted along with the EuropeanaPhotography strategy of using these labels to meet these aims and the problems as they emerged in the project.³⁴

³⁰ Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases (Database Directive).

³¹ Database Directive Art 7.

³² Database Directive Recital 7.

³³ Germany, Austria, Spain, Italy and the Scandinavian countries. See T Margoni, ‘The digitisation of cultural heritage: originality, derivative works and (non) original photograph’, Institute for Information Law (IViR)—Faculty of Law University of Amsterdam available at <http://www.ivir.nl/publicaties/download/1507>.

³⁴ The final report of EuropeanaPhotography can be found here: http://www.photoconsortium.net/wp-content/uploads/2015/04/D1-2-EuropeanaPhotography-Final-Report_DEF_revised.pdf

4 Rights Labelling

Europeana is the publicly funded portal that gives access to digital images of cultural heritage resources from throughout Europe. It describes itself as ‘the trusted source of cultural heritage brought to you by the Europeana Foundation and a large number of European cultural institutions, projects and partners.’³⁵

One of the essential steps in making digital objects available is the need to associate metadata with the object. Metadata are descriptive data about the primary object; they are the ‘glue’ that links digital data. Metadata ensure that objects can be identified, retrieved and shared. Metadata would include information such as the creator of the object—in the case of EuropeanaPhotography a photograph, a description of its subject, the time when the photograph was taken, the place, possibly geolocation references, and perhaps some photographic qualities of the image, such as the ISO value, the diaphragm of the camera and the shutter speed. This could go as far as including the serial number of the camera.

For information systems to manage those who are given permission to use the images, and under what conditions, it is increasingly important to codify this information as metadata. This was the route taken by Europeana in its approach to rights labelling.

For ICT automation and interoperability, software must be permitted to access the databases holding the objects to query for specific content. In this way the user can discover the rights status and permissions. Application developers can then create new functionalities using the collections made available through Europeana and on other platforms knowing the copyright permissions being granted. Museums and archives can enhance the findability and visibility of their collections which could in turn attract extra footfall to the institution.

Europeana’s Rights Labelling Campaign³⁶ was launched to ensure that digital objects found on and via on Europeana have a clear rights status. One reason for this campaign was to support Europeana’s change of strategic direction from a portal to a re-use platform the aim of which is to encourage creative reuse of the content. Where the access and reuse is partly automated, such as in applications that would integrate this content, software developers need a simple way to determine which content is freely available for (commercial) reuse.³⁷

³⁵ <http://www.europeana.eu/portal/aboutus.html>

³⁶ <http://pro.europeana.eu/blogpost/europeana-launches-rights-labelling-campaign>

³⁷ <http://pro.europeana.eu/publication/make-the-beautiful-thing-business-plan-2015>

The labels (or rights statements³⁸) were developed in collaboration with Creative Commons.³⁹ In addition to the seven CC licenses,⁴⁰ a Public Domain Mark⁴¹ (PDM) has been added to indicate that a work is in the public domain. This differs from the CC0 license in that when a work is in the public domain, no-one can claim the copyright. It would thus make no sense for the work to be dedicated to the public domain. In addition there are the following labels: out of copyright—non-commercial reuse label for those collections which may be in the public domain but have been digitised under arrangements which give exclusive use for a set period; rights reserved—free access where it does not cost to access content but copyright may restrict re-use; rights reserved—paid access where access has to be paid for; orphan work—where the right owner cannot be located after a diligent search; and unknown—where the content provider does not know the copyright status of the work.

Europeana gives instructions as to the metadata to be added about the rights status of the object (in the edm:rights field). For example, for the public domain mark the metadata reads: <edm:rightsrdf:resource=["http://creativecommons.org/publicdomain/mark/1.0/"](http://creativecommons.org/publicdomain/mark/1.0/)>

The metadata themselves are CC0 as laid down in the Data Exchange Agreement entered into with contributors before Europeana accepts content.⁴² Contributors also grant Europeana the right to publish an image preview.⁴³

5 The Public Domain Mark (PDM)

An attempt to value the public domain has been documented in the work of Simon Tanner, 'Measuring the Impact of Digital Resources: The Balanced Value Impact Model'.⁴⁴ In this study, Tanner shows how giving public access to holdings by publishing them as digital resources can create new business models for museums, creative industries, heritage organisations and archives. The study also highlights the often hidden costs of charging for the licensing of digitised works.

³⁸ <http://pro.europeana.eu/web/guest/available-rights-statements>

³⁹ <http://creativecommons.org/>

⁴⁰ The Creative Commons CC0 1.0 Universal Public Domain Dedication (CC0); Creative Commons—Attribution (BY); Creative Commons—Attribution, ShareAlike (BY-SA); Creative Commons—Attribution, No Derivatives (BY-ND); Creative Commons—Attribution, Non-Commercial (BY-NC); Creative Commons—Attribution, Non Commercial, ShareAlike (BY-NC-SA); Creative Commons—Attribution, Non-Commercial, No Derivatives (BY-NC-ND).

⁴¹ <http://creativecommons.org/publicdomain/mark/1.0/>

⁴² <http://pro.europeana.eu/page/the-data-exchange-agreement>

⁴³ Note also the Out of Copyright Calculator which helps to determine whether a work is in the public domain <http://www.outofcopyright.eu>

⁴⁴ Simon Tanner, 'Measuring the Impact of Digital Resources: The Balanced Value Impact Model.' King's College London, October 2012. Available at: www.kdcs.kcl.ac.uk/innovation/impact.html

With the PDM, Europeana aims to encourage contributors to share their content in ways that it can be freely re-used. In EuropeanaPhotography, more than 95,500 of the 450,000 images contributed to Europeana are labelled with the PDM, representing more than 20 % of the overall number. The project experienced excellent exposure of these collections through the Europeana platform, notably with the Lithuanian Art Museum collection.⁴⁵ This experience bears out the findings of work done by Tanner noted above.

Despite these successes, members of the EuropeanaPhotography consortium were hesitant about using the PDM. As noted above, monetising images, including public domain images, through licensing, is often the means through which the digitisation and curation of photographs is paid for by heritage institutions. In addition, family photographs, which are of the utmost importance in building histories of how people lived, are often donated with a condition prohibiting commercial re-use, their donors fearful of seeing ancestors images used in advertising campaigns.

5.1 Monetising Images

As noted above, licensing of digital images from photographic collections is one way in which the collections can be maintained. In addition, many photographic agencies depend on licensing digital copies for their livelihood. Bearing in mind that the images collected and made available by EuropeanaPhotography mostly have people as their subject matter, meaningful re-use of the images generally requires direct contact with the archives in which the photographs are kept, and with the relatives of the subjects of the photographs with the aim of gathering the stories of and behind the people. In other words, re-use often requires a relationship between the re-user of the photograph and the organisation and the individuals who have knowledge of its subject matter. A concern of EuropeanaPhotography is that app developers working with content sourced via Europeana would be unlikely to spend time cultivating these relationships, and that any re-use may be as background material only, unlikely to generate significant value.

For EuropeanaPhotography, and its successor, Photoconsortium, one of the main advantages of making content available via Europeana is to develop the profile of their organisation through which relations can be built with researchers, the general public, developers and other industries. When access to their content is anonymous and automated, this negates this potential advantage, and adds to the concern that any benefit to come from new business models to emerge from developing apps would be for the app developers and not for the content providers that make their content freely accessible. EuropeanaPhotography thus saw limited return on the investment expended in developing metadata for rights labelling, it being unclear

⁴⁵ <http://pro.europeana.eu/blogpost/how-the-lithuanian-art-museum-shares-their-culture-with-the-world>

what this process added to the business model of the organisations involved, nor to end users who may re-use content irrespective of the licence associated with it. The clear message to come from EuropeanaPhotography was that to stimulate reuse that adds economic value, business models should be developed in which current copyright holders and cultural heritage institutions that care for the content can participate. Through participating in EuropeanaSpace, and engaging in pilot demonstrators, hackathons, incubators and monetising events, EuropeanaPhotography is aiming to develop just such participatory models.

5.2 Control by Heirs and Third Parties

It was noted above that moral rights exist in most jurisdictions, and in some countries are perpetual and so can be called upon by the heirs of the author to, among other things, exert control over certain uses that might be considered derogatory to the reputation of the author. Furthermore, in other countries special rules—beyond moral rights—exist to protect valuable works of art, including major photographic collections.⁴⁶ The aim of this type of legislation is to protect the cultural and moral integrity of important works that are kept in national collections. This was the law that was called on by an Italian minister in response to a commercial company's use of a photograph in an advertisement of Michelangelo's David carrying an assault rifle.⁴⁷ The limitation of these 'special' laws is that they will be enforceable only in the territory in which they are enacted. Unlike copyright, they are not a part of the 'international' web of laws discussed above.

It can be seen from this discussion that using a PDM mark could cause users to erroneously believe that a work can be re-used without limitation: which is not the case. The PDM mixes two concepts: a legal fact attached to the digitised work, that a work is in the public domain; and reuse permission, the possibility of reusing the digital object without restriction. This may be misleading because the work may continue to be subject to the moral rights of the author. It is notable that the PDM rights label associated with Europeana states that 'Works that are labeled as being in the public domain can be used by anyone without any restrictions.' In addition there is a link to the CC public domain mark which states 'In some jurisdictions moral rights of the author may persist beyond the term of copyright. These rights may include the right to be identified as the author and the right to object to derogatory treatments.' In addition Europeana has guidelines on the use of public domain works that include such exhortations to 'give credit where credit is due', and 'protect the reputation of creators and providers'.⁴⁸ Thus the PDM licence is subject to moral rights, but the bare statement on free-re-usability by Europeana

⁴⁶ Articles 10 and ff. Legislative Decree 42/2004 of the Italian Code of Cultural Heritage and Landscape under Legislative Decree No. 42, dated January 22, 2004 as amended.

⁴⁷ <http://ipkitten.blogspot.be/2014/03/exclusive-rights-in-classical-art-works.html>

⁴⁸ <http://www.europeana.eu/portal/rights/pd-usage-guide.html>

could be misleading for the user if she does not follow the links to the fuller explanations.

There are other challenges with the PDM mark. Given the general rule that published works come into the public domain after the death of the author plus 70 years, works keep falling into the public domain, which then becomes a moving target. Information systems that indicate the rights status of a work need to recalculate once a year to decide whether a work should be relabelled with the PDM. The task is not helped by the complexity of the legislation meaning that there is no algorithmically certain way to determine this status (tools like *outofcopyright.eu* are not 100 % accurate). There is also the philosophical question of who should take responsibility of attributing the PDM, if no one owns the copyright. If Europeana develops an algorithm that can determine which works are in the public domain, would Europeana have the authority to attach the PDM to works, even if the provider attached another label? If no-one owns the rights, who should care for them? Is this a task for public museums and institutions?

For a consortium as diverse as EuropeanaPhotography, one of the strengths is that it gathers organisations of different forms and with a range of differing core missions such as universities, photo agencies, museums and archives. These organisations, united by the common goal of caring for photographic heritage, found that it was not possible to have a ‘one-size-fits-all’ solution to rights management. It was accordingly decided that the choice of the rights label would remain with every partner, and would not be made or enforced at the consortium level with many in the consortium noting a preference for a label that precludes commercial reuse explicitly.⁴⁹

6 Out of Copyright: No Commercial Reuse

Along with the launch of the rights labelling campaign, Europeana introduced a new label, tagged OOC—NC, for Out Of Copyright—No Commercial Reuse.⁵⁰ Such a label is a solution for those libraries and archives that have made an agreement with private organisations which gives to the private partner exclusive exploitation rights for a specific duration in exchange for making the digitisation investment. This is precisely the arrangement that has been made possible by the Re-Use of Public Sector Information Directive 2015.⁵¹ Generally, the aim of this Directive (and the earlier Directive which it amends⁵²) is to liberalise the use by third parties of public sector information. This now includes information developed by libraries, museums and archives. In general, exclusive licensing is not permitted by the Directive, except in exceptional circumstances. Exceptional circumstances

⁴⁹ <http://www.europeana-photography.eu/getFile.php?id=298> for further information.

⁵⁰ <http://www.europeana.eu/portal/rights/out-of-copyright-non-commercial.html>

⁵¹ Council Directive 2013/37/EU3 on re-use of public sector information.

⁵² Council Directive 2003/98/EC1 on the re-use of public sector information.

would include those instances where, without any form of exclusivity, the institution would not be able to carry out a digitisation project. Where a third party makes a substantial investment in a digitisation project, then an exclusive arrangement is permitted for up to a maximum of 10 years. It is said that this deal structure has mostly been used over the past few years for agreements between Europeana and Google. As Google has large quantities of digitised content, Europeana was eager to publish it and so this label was made available under conditions that fit the Google case. As noted, the arrangement should equally be available to other institutions under the conditions in the Directive. Indeed, Europeana does make the label available to institutions that can show existing contracts that indicate, to Europeana's satisfaction, that the partner does not own the full rights to publish these works unconditionally.⁵³

Europeana does not allow use of this label for providers who, for the reasons outlined above, do not want commercial reuse of the public domain works that they provide to Europeana. EuropeanaPhotography, in their contacts with (smaller) archives, noticed an enthusiastic willingness to share content with Europeana, but on condition there would not be any commercial reuse. EuropeanaPhotography would therefore argue that there is a need for a label that does exactly that: indicate that the work is legally in the public domain, while at the same time precluding commercial reuse.

7 Orphan Works

One major recurrent issue remains around the digitisation and making available of our photographic heritage, and that is with orphan works. Orphan works are those works whose owners cannot be identified, or if identified cannot be traced even after a diligent search.⁵⁴ Most archives, including photographic archives, hold many such works. However, and without the requisite permission built into copyright law, these archives are not legally in a position to publish them—a clear conflict with their public sector mission to make such works accessible to the public and for which digitisation would be an obvious strategy. Some jurisdictions contain a library exception within their law⁵⁵ that makes it possible for libraries and archives

⁵³ As is stated on the Europeana website: 'Before applying this rights statements to digital objects that you intend to make available via Europeana, please consult the ingestion team to see if your digital objects qualify for this rights statement.' <http://pro.europeana.eu/share-your-data/rights-statement-guidelines/available-rights-statements>

⁵⁴ Directive 2012/28/EU of the European Parliament and of the Council of 25 October 2012 on certain permitted uses of orphan works, Article 2.

⁵⁵ Such as §108 in US Copyright law. See also the most recent proposals from the US Copyright Office for the establishment of an extended collective licensing scheme 'Orphan Works and Mass Digitisation' A Report of the Register of Copyrights, June 2015. <http://copyright.gov/orphan/reports/orphanworks2015.pdf>

to digitise those works for preservation. In Europe an Orphan Works Directive⁵⁶ was introduced in 2012 to be implemented into national legislations by October 2014.⁵⁷ However, even where a work is deemed to be orphan, only limited uses may be made of it. It may be made available to the public, and may be reproduced, but only for the purposes of indexing, cataloguing, restoration or preservation.⁵⁸ Furthermore only certain works are covered. These include published works, first published in a member state; cinematographic and audio-visual works and phonograms.⁵⁹ Stand-alone photographs are not covered by the Directive.⁶⁰ Article 10 of the Directive requires the Commission to keep the functioning of the Directive under review, and in particular the exclusion of certain works including photographs. Despite the date for submission of this report being 29 October 2015, it seems that it has not yet been made publicly available—if drafted.⁶¹

Many in the cultural heritage sector lament the lack of a unified and robust orphan works system in Europe, and believe the Directive to be a missed opportunity to enhance the opening up the collections of archives in general and community archives in particular. While, and as has been noted above, developing relations with the communities whose history is told through these photographs is a central to the work of many archives, from a copyright perspective it is ironic that those people will not be the owners of the copyright in the photographs. Ownership of the copyright will generally reside with the individual who took the photograph; this person may have few or no connections with the community.

8 Cultural Rights and the Right to Culture

RICHES, Renewal, Innovation and Change: Heritage and European Society, is a European funded project⁶² in which a strategy has been developed to reassess the basics of the intellectual property legal environment in the heritage sector in the wake of co-creation and of the move from analogue to digital.

The last two decades have witnessed significant changes to the ways in which our cultural heritage (CH) is created, used and disseminated. Intellectual Property Rights (IPR) in general and copyright in particular impacts on how cultural heritage is produced and

⁵⁶ Note 54 above.

⁵⁷ Note the EIFL guide to the Orphan Works Directive <http://www.eifl.net/resources/european-orphan-worksdirective-eifl-guide>

⁵⁸ Orphan Works Directive Article 6.

⁵⁹ Orphan Works Directive Article 1.

⁶⁰ Orphan Works Directive Article 10.

⁶¹ There are a number of orphan works databases. For the European registry see <https://oami.europa.eu/orphanworks/>. For the UK database see <https://www.orphanworkslicensing.service.gov.uk/view-register>

⁶² The project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 612789.

*consumed, developed, accessed and preserved in this digital world. New practices such as collaboration and co-creation of CH and changes in how we engage, alter, communicate and participate in CH require appropriate IPR laws for the digital economy.*⁶³

Research has been done that seeks to reconcile the need for public access to grow the space for creative reuse of heritage on the one hand, and the protection of cultural rights on the other. While in EuropeanaPhotography one of the issues with the rights labelling campaign was the perception that use of the PDM would lead to unwarranted, unwanted reuse that could harm the integrity of the works, the work in RICHES stresses the positive outcomes that could flow when intellectual property strategies are developed that seek to place cultural rights and the right to culture at their heart.

RICHES explores how the public and private perspectives on heritage can be merged to give new dynamics to the reuse of cultural heritage in the digital context:

*The starting point is to recognise that cultural heritage can be thought of in two ways by policymakers and cultural heritage institutions. It can be thought of as an asset belonging to the nation or institution, or it can be thought of as a right or heritage belonging to the community or group. These perspectives are not mutually exclusive, but give useful points of reference when developing copyright policies and strategies.*⁶⁴

This quote reflects the problems that emerged during the EuropeanaPhotography project part of the remit of which was to deliver access to cultural heritage for the public. For the participating partners, this cultural heritage is part of their assets. As noted above, while they were eager to obtain, through Europeana, exposure of their collections, the partners were also wary of relinquishing control of copyright as its management and exploitation is at the heart of the way they do business and fund the preservation of their collections. However, and as the RICHES strategy suggests, these perspectives need not be mutually exclusive:

*Where the starting point is to think of cultural heritage as an asset, then, within the legal framework, it is generally first considered through the lens of copyright. When this is the case, culture becomes commodified. In other words, culture becomes bound up in notions of private property, ownership and control. If, on the other hand, culture is first considered as a right or heritage belonging to the community, then it is looked at first through the lens of human rights, notably the rights to culture and cultural rights. When this is the case, emphasis is placed on public goods, access and cultural communication. Copyright can be used as a tool to attain these goals.*⁶⁵

⁶³ See C Waelde and C Cummings RICHES: Digital Copyrights Framework, 2015 available at http://www.digitalmeetsculture.net/wp-content/uploads/2015/09/RICHES-D2.2-DigitalCopyrightsFramework_public.pdf

⁶⁴ Note 63 p. 2–3.

⁶⁵ Note 63 p. 3.

There is much to say for this approach. It aligns well with other open movements, such as the open access movement⁶⁶ which seeks to ensure that access can be gained to the fruits of scientific and cultural research.⁶⁷ As the RICHES strategy notes, taking such an approach does not thereby mean that all content has to be made immediately open. It might however contribute to persuading decision makers within cultural organisations that research should be funded that might reinforce that carried out by Tanner noted above. Taking such an open approach may ultimately not only lead to increased downstream revenues but in addition it would give unprecedented opportunities to individuals and communities to interact with, and co-create new forms of heritage.⁶⁸

9 Conclusion

Intellectual property remains a legal core as the cultural heritage sector moves from curating and preserving analogue objects to making available digital representations of them. Digitised content becomes at once intangible, and fixed in digital objects protected by copyright. Theory tells us that copyright laws are essential to stimulate new creations from which the authors can obtain financial return. But these same laws are challenged by digital working practices and seem to hamper innovative creation. Rights labelling is an important development, allowing search engines to find content, and users to see how it may be re-used. However the experience of EuropeanaPhotography shows that the area is more complex than it might first seem. The names of labels and licences may not be straightforward, and it is not easy to determine with confidence if a work is in the public domain, and even if it is, moral rights may still attach to the work, and personal and cultural sensitivities may demand that a work be dealt with respectfully. There is much to be said for rethinking the place of copyright within this melee. Many attempts have been made over the years to reform copyright laws in order to make them ‘fit’ for the digital age. At the time of writing (December 2015) there is yet another copyright reform package under consideration in Europe. Yet experience shows that meaningful reform is hard to achieve in practice because of the vested interests and lobbying powers in the copyright sector. The Orphan Works Directive is a good example: there were high hopes that the implementation of measures relating to orphan works in Europe would help to make available digital representations of millions of analogue artefacts ‘locked up’ within cultural institutions and unable to be used because of the unknown copyright status of the works. But because of the sensitivities of the subject, and because of fears of trammelling on intangible property rights, so the measure as ultimately enacted has proved to be less helpful

⁶⁶ <https://www.plos.org/open-access/>

⁶⁷ <http://www.law.yale.edu/intellecualife/7072.htm>

⁶⁸ Dow Wasiksiri transforms old Dutch colonial photography by making photographic artworks <http://www.2902gallery.com/index.php/artists/dow-wasiksiri/>

than hoped to the cultural heritage sector. Furthermore, the differences in laws as between member states of the EU despite the harmonising and approximating influences of the copyright directives, and the further differences as between those laws, and the laws of countries furth of the EU despite the minimum standards to be found in international instruments, makes cross border management of copyright and works protected by copyright within the cultural heritage sector highly challenging: the copyright space is highly contested. The strategy therefore of revisiting how we think about the copyright framework and implement its provisions holds much promise for the sector. By emphasising the importance of cultural rights and the right to culture—which are fundamental building blocks of the public interest mission embedded within the cultural heritage sector—and using the proprietary rights embedded within copyright to meet those goals, so this could help to ‘unloose’ the Gordian knot that is, at present, seen as serving to hamper development within the field.

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Part II

Mediated and Unmediated Heritage

A Case Study of an Inclusive Museum: The National Archaeological Museum of Cagliari Becomes “Liquid”

Anna Maria Marras, Maria Gerolama Messina, Donatella Mureddu,
and Elena Romoli

Abstract

From 6 to 20 June 2014, the General Directorate for the Promotion of Cultural Heritage of Ministry of Cultural Heritage and Activities and Tourism (MIBACT) launched the online consultation #culturazenaostacoli in order to financially support a project for museum accessibility. The National Archaeological Museum of Cagliari received the most votes. Since then the museum’s team started working on the project that was called “liquid museum”, mainly due to its aims of adaptability and inclusivity. This article describes the project and the main guidelines that led to the draft currently being developed. Issues related to the new exhibition and multimedia displays will not be addressed herein. The focus of this document is the new approach in the writing of a project that is not only easily replicable but especially sustainable over time, both in terms of economic costs and for the technologies that it uses, and thus ready to be changed, updated when necessary, and because of this ‘liquid’.

1 Introduction

A museum is a non-profit, permanent institution in the service of society and its development, open to the public, which acquires, conserves, researches, communicates and exhibits

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K.J. Borowiecki et al. (eds.), *Cultural Heritage in a Changing World*,

DOI 10.1007/978-3-319-29544-2_6

the tangible and intangible heritage of humanity and its environment for the purposes of education, study and enjoyment (ICOM 2015).¹

With this powerful definition in its statute the International Council of Museums (ICOM) defines what a museum is. Among other aspects, we would stress that museums are seen as institutions at the service of society as a whole and exist for its development. Therefore, museums are no longer *wunderkammer*, cabinets of wonders, but ever changing places that have an active role in society, of which they are, in many ways, an expression (JALLA 2003: 249). In addition to being an institution at the service of society, museums can be defined as such if they are open to the public, and therefore accessible to everyone. The concept of accessibility comes in varying degrees and forms and for some time now is associated with the idea of inclusiveness, because the visit must be lived without barriers and differences, allowing everyone to access the available contents and information.

2 The Contest #Culturasenzaostacoli

From 6 to 20 June 2014, the General Directorate for the Promotion of Cultural Heritage of MIBACT launched the online consultation #culturasenzaostacoli (MIBACT 2014). Funding for the construction of an accessibility route was the prize for the selected museums. The National Archaeological Museum of Cagliari (MARC), which had been included as one of the 17 museums selected for the consultation, received the most votes.

This exceptional result was due to the collective effort of the employees of the Superintendence for the Archaeological Heritage of the Provinces of Cagliari and Oristano, the support of local associations, and the support of the famous jazz musician Paolo Fresu, who supported the museum with his testimonial. The campaign slogan, 'At MARC, music will be the same for all' was based on an idea by director Donatella Mureddu.

A key role was played by online communication, thanks to the hard work of the MARC social media and communication team. Starting in December 2013, in fact, MARC, alongside the National Archaeological Museum of Florence (Archeotoscana blog 2015) is one of the first Italian public museums to have hired an editorial team who specifically works on online communication and runs the MARC blog (Museoarcheocagliari blog 2015) and all museum's social networks accounts (namely Facebook, Twitter and Pinterest, which is actually the less used of the three). The presence of this team was essential to the project's success.

¹ ICOM Statutes, at the 21st General Conference in Vienna.

3 The National Archaeological Museum of Cagliari

The National Archaeological Museum of Cagliari is the most important and prestigious institution of archaeology and history of Sardinia. The first collections date back to the nineteenth century, when knight Leonardo de Pruner, under Ludovico Baylle's supervision, set up a room in the Viceregal palace to become the 'Cabinet of Archaeology and Natural History'. Since 1993, the museum is located inside the Citadel of Museums, inside one of the buildings designed by Pietro Gazzola and Libero Cecchini in the 1950s and finished at the end of the 1970s. The museum is rather large, arranged around an atrium, on four floors. Being on the highest hill in town, through its wide windows and balconies it offers visitor a beautiful view of Cagliari from above. The permanent exhibition of MARC includes over three thousand artefacts which are important for the understanding of the history and the culture of Sardinia as well as those concerning past civilizations living and thriving around the Mediterranean sea.

The archaeological collection is arranged over three floors. It follows a chronological order at first, then a topographic order. The first floor is largely devoted to a narration of the historical and archaeological development of Cagliari, and the second floor displays findings from some of the most ancient settlements and town of Sardinia (such as Nora, Bithia, Monte Sirai, Sant'Antioco). The third floor is for temporary exhibitions, and it currently hosts the exhibition 'Mont'e Prama 1974–2014', which, for the first time after the restoration, showcases the famous Mont'e Prama sculptures, extraordinary and unique examples of monumental statuary from the Nuragic period (Iron age) of Sardinia. The exhibition is also at the local museum of Cabras G. Marongiu.

4 Liquid Museum: A Moving Museum

"Alongside the duty of preserving its heritage, every museum aims at making it accessible to different and diverse audiences, enabling its use for education, culture, diversion and more. Interpreting its own heritage and making it accessible to all visitors, especially by displaying it, is therefore an integral part of museums' *raison d'être*" (MIBACT 2001).²

Based on this definition, the accessibility project led by MARC called 'Liquid Museum' was born. The word 'liquid' does not mean 'fragile' and 'elusive' as it does in the Bauman theory (Bauman 2000); instead it means 'mobile', as in ready to receive new content. At the same time the technologies used are not fixed, but they are ready to adapt and change. 'Liquid' suggest a museum for children, the elderly, foreigners, the disabled, and is thus chameleon-like, a museum that can take different shapes and sizes to suit the needs of any visitor.

The liquid museum is accomplished through the building of perceptual and sensory pathways that allow a total use of the museal structure and its contents,

² Ministry of National Heritage and Culture decree of 10 May 2001, precondition VII.

because “art, in all its manifestations, is a language and therefore a form of communication. As communicative act it should be affordable and accessible to all” (Addis 2002: 35). During the time of the project the museum will become a liquid empathic museum that is able to understand the needs of its visitors and to adjust and adapt its contents. This will be accomplished through social networks and periodic surveys designed to explore what the visitors would like of their museum and how they feel when visiting it. Moreover the museum staff, thanks a proper welcome training, will be able to better support the visitors needs and emotions. Visitor emotion and feeling is an important focus of museums, as it is exemplified by the Empathy Museum (2015), that will be opened in London and whose aim is to stimulate empathy between people.

An archaeological museum is by its nature a container full of objects that explain gestures and rituals of the past. These items often have unusual shapes and curious sounding names that are sometimes difficult to understand or even remember for non-specialists. Archaeological artefacts carry with them a set of historical, typological and functional information that need to be communicated and shared with the public in a simple but not prosaic language. Technology and a new way of communicating history are essential to this, especially to make content accessible to people with cognitive disabilities.

For a long time it was thought that the removal of physical barriers and the creation of tactile paths were the best way to make museums accessible. Nowadays, the approach is different (Gilli and Rozzi 2013), and attention is also paid to learning disabilities (such as autism and others). Here the focus is shifting from what is displayed to the way it is displayed and the textual-communicative apparatus that goes along with it (Museoarcheocagliari blog 2015). Small but important expedients are the use of Sans Serif fonts, the right distance between text lines and an appropriately coloured background. Moreover, a simplified but not trivialized rhetoric is implemented, which helps explain the significance of the artefacts themselves, their use in ancient times and their role within the scenario that is set up in the exhibition. Therefore artefacts must be understandable for children, teen agers, the elderly and families with children.

This revolution is a ‘new’ way of seeing museums as a space for social integration. This includes the importance of migrant integration such as the Museum of the City of Liverpool and the European Museums in an Age of Migrations project (MeLa Project 2015), funded by the European Commission, which aims to

“delineate new approaches for museums in relation with the conditions posed by the migrations of people, cultures, ideas, information and knowledge in the global world. Its main objectives are to advance knowledge in the field and to support museum communities, practitioners, experts and policymakers in developing new missions and forms of museums and libraries in “an age of migrations.” (MELA website)

In order to facilitate adaptation and renewal of exhibitions and visitors’ engagement, museums should not be static. Instead of setting up new showcases (which MARC already has) the use of apps and innovative multimedia displays was preferred, all of them adaptable, so that everyone can benefit from a visit that is

accessible to all and thus shared. Multimedia displays will thus be designed in such a way that they are easily adaptable and renewable for new productions, new paths and new exhibition themes, and of course adaptable to include new findings and artefacts, because the MARC must be able to update its contents without losing its accessibility.

In addition to that, the museum staff will provide engaging guided tours, in order to receive visitors in the best possible way and enhance their enjoyment of MARC. Human contact, in fact, is not only complementary to multimedia devices, but essential to accessibility. The museum must be accessible from the moment it is entered and for that reason all staff member should be trained and prepared to offer the utmost welcome to all their visitors. The entire exhibition route inside the MARC will be revised and designed in such a way as to allow an independent and varied realisation of the museum's collections, and in doing so for instance, well known deterrents for disabled participation will be overcome. In this new blueprint, all the exhibition panels will be revised to follow the new design rules (e.g. using left alignment text, using proper colours, simplifying text, using multimedia support). We will organize a monthly meeting with associations inside the museum and co-organize special 'accessibility day' in order to stimulate the meeting between associations and citizens in order to transform the museum as a social space.

Unfortunately material limits and economic issues prevent MARC from undergoing architectural changes, nevertheless the collections contents (description objects, multimedia) will be updated, integrated and made accessible to all. Visitors, real or virtual ones, should have access to the contents and information that allow them to experience museums in a very personal way, but also to share contents, comments and photos with others visitors. For that reason, our project adopts the definition of a museum that can be found in the Act of Address Museums by ICOM which was included in the Art Bonus Decree (Decree 83/2014). It states that a museum is a civic and social space. This was also supported by the online course given at Leicester University entitled 'Behind the scenes at the 21st Century Museum' that also aimed for a new information and communication strategy in museums.

4.1 A New Meaning of Museum Accessibility

As already mentioned, in the past the term 'museum' generally meant a set of arranged spatial features, which created an area that was autonomous and easy for everyone to access, included disabled people. The Liquid Museum project follows the instructions drawn from the Design For All project (Acolla 2009) and the MARC is committed to addressing the key points given by the Italian Ministry regarding accessibility which include: orientation, reference points, signage, maps, overcoming distances, overcoming of differences in height, and equipment such as ramps. The innovation in the accessibility concept is strictly related to the content

of the museum, without forgetting the importance of breaking down architectural barriers, through many different aspects, which include:

- Physical. Removal of physical barriers.
- Sensorial. Visitors are given a chance to touch some original findings and/or 3D models (Zimmer 2008) that were made during teaching-learning sessions planned in the museum, in and CRS4 collaboration with Sardinia Research Center Fablab (Fablab Sardegna Ricerche 2015). The experience of being able to touch the objects or their reproductions is perhaps one of the most low-cost solutions, and makes the museum more accessible and friendly to visitors. These experiences always encourage more than one visit, as witnessed in the exhibition Tate Sensorium at the Tate Britain in London which offered visitors a chance to experience a museum that stimulates the hearing, smell, taste, touch (Tate Museum 2015). The Prado Museum recently has carried out 3D copies of some masterpieces, in order to make them touchable for visitors (MUSEO PRADO). In Italy, for several years, the National Tactile Museum Omero (Omero Museum 2015) has, as its mission, not only offered a touchable museum, but in its rooms there are the reproductions of some of the most important masterpieces of Italian cultural heritage. Their interest is also to provide support to institutions to organize a tactile or sensorial pathway.
- Digital. Generally the Information and communications technologies (ICT) are considered an important support in the management and use of contents both of the museum staff and visitors. Two case studies carried out by the European project The Learning Museum (LEM Project) shows that multimedia has to be well-built, with attention not only to the quality of the content (texts, images) but also the usability of instruments and their playful aspect. For the museum's Liquid Project, the artefacts will first be digitised by using different techniques (photomodelling, lasercan), and then 3D models will be created. Both processes are planned as a training activity open and free not only for the museum staff but also for students. The new technologies of digitalization applied to the museum context furthermore encourage the enjoyment of the collection via remote access. Recently, the British Museum added downloadable 3D models of its collections in the Sketchfab (2015) platform, under the CC-BY-SA (attribution + sharealike) user licence. This is undoubtedly an important step that confirms that museums who make their collections accessible online do not risk having fewer visitors and in fact increase the visibility of the museum itself. This is evident in the increasing number of museums on the Google Art project of the Google Cultural Institute (Google Art Project 2015), where there are photo galleries of 596 museum collections. Data associated with these collections are often open or downloaded directly from the site as open data (e.g. GITHUB MOMA). The most important reference regarding open access is given by the Open GLAM (Galleries, Libraries, Archives and Museums) project by the Open Knowledge Foundation (OpenGLAM 2015) and the GLAM project supported by the Wikimedia Foundation (GLAM 2015), where once again the British Museum is involved (GLAM British Museum 2015). These projects are

designed to give support to institutions in the form of procedures for sharing information such as mainly metadata and images of their objects. Starting with these examples, a key aspect of the Liquid Museum, after digitization, is the creation of the museum's website and its Digital Library (DL). The website, built with free Content Management System (CMS) software and according to the usability standards of W3C will be handled by specially trained museum staff, and will be designed as a real museum guide. Through systems such as Quick Response Code (QR) and Near Field Communication (NFC) the user may download and/or view the contents (video guides, images, insights) that help in the exploration of collections. Museum tours will be possible through a web-based geographical information system (Indoor WebGIS) able to help the visitor to discover museum paths and collections. A second WebGIS based on Openstreetmap API³ will be built in order to visualize and to research the archaeological sites whose findings and/or contexts are present in the museum.

The most important objects will have navigable online three-dimensional models, in addition to images. The blog of the museum will be integrated into the website to allow interaction with users-visitors. Metrics will be used to evaluate the performance and user interaction with the site content. Fundamental to the process is the how the exhibits impart knowledge, which is why the site will include a digital library of museum exhibits. The creation of the digital library of artefacts and sites will prepare for data acquisition (photos, video) that will be carried out by the museum staff. The museum currently has a database of findings in FileMaker 12, made during a program called Master and Back funded by Autonomous Region of Sardinia. During this project and thanks to co-financing supported from Autonomous Region of Sardinia and Superintendence for Archaeological Heritage of the Provinces of Cagliari and Oristano,⁴ three fellows have been employed for 2 years (from 2012 to 2014) at the MARC: the restorer Maura Mereu and the archaeologists, Enrico Trudu and Anna Maria Marras, who designed the database and wrote the users guideline. This database will be imported into the new database online, which will be implemented with open source software, following the Italian National Institute for Cataloguing (ICCD) guidelines and using metadata schema of Europeana (EUROPEANA 2015) in order to facilitate dialogue and integration with both systems. Datasets of the collections will be downloadable as open data from a section of the website, following the example of the Fondazione Torino Musei that, on the occasion of the Open Data day of 2014, has made this information available (Fondazione Torino Musei 2014)

- Training. Training is a key element for the accessibility of the project, which goes hand in hand with the web site creation, the new exhibition itinerary and the carrying out of multimedia solutions. Over the course of the project, several

³ Open Street Map (OSM) is a collaborative project born in 2004 to create a [free](#) editable [map](#). OSM is use also for indoor mapping.

⁴ <http://www.archeocaor.beniculturali.it>

different training sessions will be implemented aimed at improving how visitors are greeted, the abilities of the staff, and the expertise in using the different devices. In order to improve the knowledge of English, courses such as those provided by Massive Open Online Courses (MOOC) are to be held at the Museum. In order to enhance visitor reception a course called “Welcome and Smile” will be given by experts in the field. As already mentioned, in order to allow the museum staff to update their digital content in real time, training sessions for “digital acquisition objects” will be given and, moreover, the Museum will purchase a small laser scanner for surveys of small objects. Another training course will be given on the reproduction of 3D objects in collaboration with the FabLab of Sardinia Research and its makers and will be opened to students. Some workshops will also be planned in collaboration with citizens’ associations in order to enhance the spirit of sharing and participation that is the main goal of the Liquid Museum.

4.2 Technologies as Liquid Tools

Nowadays the importance of technology in cultural enjoyment is acknowledged and generally accepted. Technology is changing the way we think about museums (Levent et al. 2014). Being a trusted public space and a trusted source of information, museums have a potential to transform those technologies used elsewhere for commercial and surveillance purposes. Technologies, on the other hand, might have the potential to aid museums in redefining their unique place in public life (Levent et al. 2014). Technology is changing the relationship between the public and a museum object (Levent et al. 2014). Technology is more and more present in museums, helping develop new ways to enhance the enjoyment of the visit and providing the means to be more inclusive, like 3D, immersive technologies, augmented reality, video reconstructions and simulations. The relatively low cost and the use of open source software makes it easier for museums to use new technologies.

A critical issue, however, is the lack of sustainability (the importance of the term of sustainability is well explained in Pilotti 2003) for some of these technological tools and the difficulty in keeping up with the rapid evolution of technology. Unfortunately, even the most new and innovative app will become obsolete in a very short time, and visitors, who are very often conscious consumers of hi-tech software and devices, are left bored with museums that are filled with old equipment and/or computer screens that are no longer useful. To counter act this, we will use open source technologies, that can be sustained for longer and allow for constant maintenance and updating. At the same time, open formats for data and international standards for metadata will be used as open formats promote an easier re-use of information in different apps.

4.3 A Network for an Open Museum

Liquid museum is a museum without barriers. It is a museum that seeks a dialogue with its visitors and with other agencies to ensure that the project involves not only the entire City of Cagliari but also all Sardinia region. The museum must be connected with other museums. In order to facilitate this process, the international museum communities are improving their networks not only in terms of thematic but on digital and accessibility issues (e.g. NEMO and Museomix 2015). The plan for dissemination foresees that the project will be presented through the social network of the museum and the creation of a section of the blog which will be dedicated to the project and includes all activities related to teaching and training. Before any activity starts, however, the museum needs to better know, also through surveys, its audiences. The knowledge of both the museum visitors and the online museum visitors are important in order to understand who they are and how they support the museum's reputation.

Another Liquid Museum activity is the installation of book-crossing library inside the museum with publications on Sardinian archaeology, in this way the museum reaffirms once again its social role and the deep connection with the territory and the town.

5 Conclusion

In recent years the technologies applied to cultural heritage have become more and more accessible. The "open source revolution" has helped museums not only with lower production costs, but also, with access to open data. In the introduction to this chapter, we used the definition of 'museum' as is written in the International Council of Museums (ICOM) statutes, highlighting the role of museum as an institution in the 'service of society' and open to all. In drawing up the plan for our museum it was very important to highlight another aspect also written in ICOM definition, which is the 'educational role' of the museum.

Finally, if the project's main goal is to have a fully inclusive museum, it is necessary to better interpret several point of views and issues, to articulate and separate the different activities designed according to the different types of accessibility. These accessibility types are: physical, cognitive, sensory and also, for the first time involves the issue of digital accessibility. The latter is more important for the future of the museum and for the museum of the future, not only in order to promote online access to museum collections, but above all for a smart use of new technologies, able to support both archiving and the dissemination of information about museum's objects.

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The Museum as Information Space: Metadata and Documentation

Trilce Navarrete and John Mackenzie Owen

Abstract

Although museums vary in nature and may have been founded for all sorts of reasons, central to all museum institutions are the collected objects. These objects are information carriers organized in a catalogue system. In this chapter, the museum will be conceived as an information space, consisting of an information system related to different methods of reasoning. We will highlight the new possibilities offered by digital technology and the changes brought by the way in which visitors come into contact with objects. Our central claim is that the visitor moved from being onsite within the museum's information space to being outside the museum in the online information space of the Internet. This has fundamental implications for the institutional role of museums, our understanding of metadata and the methods of documentation. The onsite museum institution will, eventually, not be able to function as an institutional entity on the Internet, for in this new information space, objects, collections and museums, all function as independent components in a vast universe of data, side by side at everyone's disposal at anytime. Potentially, users can access cultural heritage anytime, anywhere and anyhow.

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1 The Museum as Information Space

Collected objects support entertainment, learning and research. Objects are collected and preserved with the purpose “to represent, to reconstruct, or to demonstrate a physical or conceptual phenomenon” (e.g., to represent a period, a place, a person, an order, a set of values, a specific idea, or a moment in time) (Buckland 1997: 805). As collections are formed, the objects’ original context is replaced by a new one. The new context is part of a space in which the museum professional exhibits objects to guide the information transmission process. As such, the object’s function is to inform a person observing it: objects are information carriers (Buckland 1997: 805; Leone and Little 2007: 362). The information they convey depends on the observer’s ‘reading’ of the object, based on acquired rules of interpretation and methods of reasoning. So, for instance, a painting may be ‘read’ differently by a painter (observing colour and brushstroke), an art historian (determining cultural and historical value) and a chemist (inspecting mineral composition).

Knowledge results from reasoning about objects, that is, from the capacity to make sense of things based on learnt rules and systems of relations (Boekhorst et al. 2005; Hooper-Greenhill 1992; Marty 2008; Navarrete and Mackenzie Owen 2011). As such, the museum is a space of communication. Traditionally, museums communicated with their visitors using what Hooper-Greenhill describes as the transmission model. She writes:

The ‘transmission’ model of communication understands communication as a linear process of information-transfer from an authoritative source to an uninformed receiver. Knowledge is seen as objective, singular and value-free. The receiver of the message to be communicated is conceptualized as open to the reception of the message, which is received more or less efficiently, and in the same way by all (Hooper-Greenhill 2007: 560).

After it had been questioned whether this transmission model indeed worked, some museums opted for a conversation model in which the audience participates and is able to attach meaning to the observed objects (Hooper-Greenhill 2007: 562). The more prominent role of the visitor in the museum space is related to the awareness of the constructivist nature of knowledge, which has already made the lay public demand alternative interpretations, explore new meanings and to critically confront the experts with their own views (Hooper-Greenhill 2007: 572). Museums, in turn, have presented alternative narratives to one object or one exhibit through temporary exhibits or multiple guided tours (McClellan 2008). That is, as objects get moved from one exhibition to another, curators can choose to present the same object as part of an artist’s oeuvre, as illustration of a genre, or as context to highlight the work of another artist. Similarly, guided tours may highlight a different aspect of the work within the same exhibit to best respond to the public’s needs (e.g. school tours).

These museums shape and control their information space through a series of decisions: selecting objects, placing objects in a specific context (next to other objects as part of a collection or exhibition), classifying and applying labels to them, and using specific methods of research and publication. Also the museum

building, its architecture and gallery design (e.g., lighting, wall colour, cases and stands), the routes to be taken, its guided tour and use of text labels, are all means at the museum's disposal to determine what information an object carries and transmits. In the onsite viewing context, the 'reading' of objects is constrained by the museum space providing the context in which to reason about the object. The process of allocating a context to an object is deeply ingrained in the work process of museums, both in the back end through object ordering and classifications as well as in the front end or exhibition space. In this respect, the history of object display is also important, for it may reveal systems of organization and thought which help to determine how to 'read' objects (Bennet 1992, 1995; Grognet 2007; Noordegraaf 2004).

2 The Polysemic Nature of Objects

Objects are polysemic. That is, the information carried by an object is diverse and changes over time due to such things as reclassification, becoming part of a temporary exhibition, or changing collections because of object repatriation, war, deaccessioning (disposal, exchange or sale), or other forms of organizational change (Hooper-Greenhill 2007; McClellan 2008). But how deliberate are the choices that museums make about the meaning of their objects; and how did they construct their information system to order and classify their objects as collections grew? Until recently, museums have worked with taxonomies and classification systems reflecting differences between museum types and academic disciplines, without being fully aware of what such systems excluded (Legêne 2008). David Vance reported in 1974 that the use of controlled vocabulary can be too specific and limit the polysemic nature of objects:

Does France include Martinique? Tahiti? Did it formerly include Algeria? How does the sense of this word change in a medieval context? Does it always include Burgundy—retroactively? What will be the consequences of calling Picasso Spanish but including him in the School of Paris? (Parry 2007: 40).

The polysemic nature of the object as information carrier has been limited by knowledge documentation systems based on 'flat files' and other systems, linking information to an object but isolating it from other objects and other object files at the same time. The desire to create structured vocabularies through thesauri, taxonomies and classification systems developed in academic disciplines, further limited the possible information value of objects (Bearman 2008; Hooper-Greenhill 2007). As museum professionals gained awareness of the polysemic nature of objects in relation to their own organizational structure and work processes, documentation systems evolved in systems capturing information related to the history of the objects in museum spaces. Awareness of the importance of this sort of information increased with the adoption of computers in the heritage domain. So now the question is: what happens to the object, the collection and the museum as

they enter the online information space? And what role has metadata to play in this transition?

3 Metadata and Information Management

Today we expect collection information management systems to support interpretations that may change over time. Information systems must allow for multiple perspectives and scholarly interpretations, and accommodate different vocabularies for different types of users (Bearman 2008; Marty and Jones 2008). Managers, for example, have different information needs than researchers, who in turn want other information from the information management system than curators and the interested public. The adoption of the computer meant a new phase in the history of museum documentation. The concept of metadata became central.

Metadata is information about the object as information carrier. Where museum objects carry external knowledge, metadata may be said to be the internal knowledge of the object (Mackenzie Owen 2007). The internal knowledge (metadata) of a book for example, consists of the number of pages, information about the author and the publisher, date and place of publication, the table of contents and the index; from a metadata perspective, the object's external knowledge would be the thesis that is argued for.

Documenting objects is complex for several reasons. Objects are polysemic in nature, they are connected to other objects and other collections, and objects collect a history as collections, exhibitions, research and preservation techniques develop and change over time. To accommodate the documentation process, specialized metadata categories are distinguished, such as descriptive, administrative, technical and preservation metadata (Baca et al. 2008; Beumer 2009),¹ including so-called paradata, that is, metadata enabling the documentation of “intellectual capital generated during research” (see London Charter Glossary).² These metadata categories structure the content management architectures, enabling a better management of diverse information sources, alternative readings of objects, and the multiple uses of the object.³

¹ It has been argued that digital objects and metadata are complementary ‘goods’ and therefore produced and consumed simultaneously. See Navarrete (2013), for an application of economic theory to digitization of heritage collections.

² Drew Baker proposed using the term paradata to document the process of data interpretation in the construction of 3D visualizations for research and dissemination to guide the London Charter (2009), an initiative to develop best practice. Strictly speaking, paradata refers to “documentation of change in collection information by adding new records while keeping the previous ones,” including interpretation of sources in the process of visualization (Navarrete 2013: 252).

³ Content management systems are part of information architecture, responsible for giving structure, methods, and design to the organization of digital information (Wikipedia 2015). Information architecture refers to the use of physical space to order things, as museums have done with their objects and their information. Parry (2007) argues that the museum institution is the metonym of a universe of knowledge.

It is the metadata attributed to the objects that enables discoverability via cross-references, hyperlinks, multiple interpretations, and so on, all within one database. Objects and their metadata can be linked to other objects and their metadata enriching each other's information dimension. Links increase in direct relation to the metadata attributed to the objects. That is, administrative metadata can complement the technical dimension of the objects, in turn enhanced by descriptive metadata. The potential links available when linking to other databases expands exponentially.

Objects always require metadata in order to function as information carriers, that is, as documents, for it is the metadata that situates the object in both a material and an information context. Finally, we should note that that collections, which are always more than arbitrary sets of objects, too require metadata to support interpretation and contextualization: collections are also objects. As such, an object may be interpreted differently when part of a collection made by an artist, a collector or a national museum. Moreover, the meaning of the collection as a whole, as documented by its metadata, will in part govern the interpretation of the object's belonging to the collection. The same applies at an even higher level to the museum as a collection of collections or supra-collection. Some information management system providers are exploring visualization of information that consider the entire collection as object made of multiple units which can be organized through filters (e.g. colour, chronology, alphabetically, geographically, by related individual, by related event). These systems are based on linking objects to multiple types of information (e.g. location, individuals, events) to facilitate navigation while reinforcing object contextualization.⁴ This allows flexibility in object reading. In a digital world, access to an individual object can follow a path from (metadata about) the museum, to (metadata about) a specific collection, to (metadata about) an individual object.

4 A New Information Space

Embracing the Internet, museum collections and single objects are becoming increasingly accessible in digitized form. Technology allows for complex information dimensions, however, in reality, digitization strategies still tend to focus on access to museum collections through images with a brief title (subject) label, thus using a restricted set of possible metadata. Because of this, online collection databases on the Internet lack access to the rich set of contextual and interpretational clues that visitors normally encounter in physical onsite museums. On site, an object is presented within a set of objects, generally with an introductory text and

⁴ An example can be found at the Microsoft Live Labs Pivot visualization of images and Europeana's Linked Open Data (LOD) approach to structure data following the Resource Description Framework (RDF), which identifies the object, its characteristics and relations based on a subject, predicate, object format.

accompanied by a guided tour, all in addition to the brief label next to it. The informational value of digitized objects is thus severely constrained, not because of the limitations of digital technology, but because of the museum's policy decisions regarding digitization.

Establishing a context for digital collections online is an entirely different process from what museums and their visitors are used to. Onsite, museums control the environment in which the visitor can observe the object by giving it a specific context and the same object transmits different information when it is part of a cabinet of curiosities, a national gallery or a zoo. By giving the object a specific set of metadata, the information carrying potential of the object is restricted. Online, alternative contexts are possible as multiple metadata can be displayed. Furthermore, the user is no longer inside the information space provided by the museum but free to explore any context she likes, following personal interests and information needs, which, usually, change over time. The museum institution can no longer fully control the context in which its objects are observed. It can only control the quality and quantity of the metadata provided to assist the interpretation process. Such a realization has driven a handful institutions to make their collections available as open data, generally free access to images allowing reuse, to counteract the poor quality images available on the Internet. The museum can to a certain degree control the selection and use of its collection since users will favour those objects that contain metadata needed to find and interpret them. A query result containing an image and explanatory text makes more sense than only the image or only the text.⁵

Museums are reluctant to make a broad spectrum of their object-metadata available without context and look for a balance between accommodating users and building their own information management system. Oliver (2012) acknowledges that digital objects and collections exist in a vast information space (the Internet) that allows for multiple contexts and interpretations. Access to the objects does not have to be tailored through exhibition design, lectures, guided tours and other educational activities, as traditionally occurs within the physical exhibition space—even though these may be available. Instead, the context provided by the museum is but one of many possible contexts in which the user may find or situate the object. Then what is the role of the museum in this new information space? To answer this question we will first focus on the concept of selection.

Selection takes place at the institution and by the user and can take the form of selecting (or not) an object and a context. From the point of view of the institution, selection is crucial at the moment the digital object is published, placing it in the vast information space with a limited set of metadata. The institution chooses an object (e.g. from the highlights, from the permanent exhibit, from the new

⁵ For a study of users clicking to view a heritage document, based on contextual information available in viewed summary, see Fachry et al. (2010). They found that “contextual information about the document undoubtedly played an important role in (...) making a selection decision” (p. 48).

acquisitions) with a number of characteristics (e.g. image quality, type of metadata) to be made available. From the point of the user, selection is central when interacting with the metadata. The objects, when properly presented, serve as information documents (e.g. images with a context) that can answer a question or can be repositioned within a new context to further engage in communication. The information chain is thus conceived as a transaction space in which the essential role of the user in completing the information communication is acknowledged.⁶ Only when the object is selected and used as an information carrier can the communication process be said to be completed.

Users select information based on features such as reliability, validity, completeness, actuality, verifiability, relevance and accessibility, depending on the user's background and information need (Boekhorst et al. 2005).⁷ Interestingly, selection of information does not have to be the result of specific queries since users can also 'find' information by accident, through passive search or serendipity (finding something while looking for something else) (Boekhorst et al. 2005). In the digital information space "access of information is the ultimate form of valuation. The selection process that leads to accessing one item represents a synthesis of all other value frameworks" (Navarrete 2010: 7).

Next to digitization of collections, we also see museums participate in the creation of new born digital objects including websites. The increased use of networked media is responsible for a fundamental change in the way visitors come in contact with collections (and museums as their managing institutions). Content, users, institutions and context are all to be found, selected and accessed, within the same information space of the Internet. Therefore, museums, while applying information and communication technology, do not disseminate their content in a broadcast-like fashion to households, as Parry believes (Parry 2007). That is, even if digitization indeed uses a technology with broadcasting media capabilities to reach many people at the same time, it actually combines it with a primarily one-to-one communication style, similar to the telephone network (Keene 1998). It is not the museum that visits the household, but all individual components—the object, collection, museum, or metadata—are placed side by side at the user's disposal in the information space, and only the information that is selected by the user is consumed.

The user thus creates his or her own virtual museum out of the materials available in the digital information space. There is no guarantee that the user will remain within the boundaries of the 'virtual' space set by the museum. In many cases the user will create a superset of metadata, combining metadata provided by the museum with information found elsewhere. An example can be found in Flickr, where users can make multiple collections of images, adding relevant metadata

⁶ This model was originally used to explain the production and consumption of scientific articles (Mackenzie Owen and Halm 1989).

⁷ For an application of the information features to digital heritage, see Navarrete (2013).

hardly ever matching the information provided by the museum.⁸ This turns the museum into a facilitator of information in digital environments, acting as one of the many sources that provide users with objects and metadata with which she creates her personal cultural information space. This might lead to combinatorial innovation, as Varian (2010) argues: the objects, metadata, collections and museums are all considered to be individual components at the user's disposal to be combined at wish.⁹

The relation between the museum and its visitor changes fundamentally as the object, the metadata, the collections, the museums, the museum information system and the user, are all independent components in an information space. Hooper-Greenhill (2007) argues that "if visitors are offered the evidence from which to draw conclusions, given access to data (...) they are able to adopt a problem-solving approach to learning" (p. 572). She proposes to deconstruct the museum's system of knowledge, highlighting the polysemic nature of objects and allowing multiple readings, in order to allow for personalized systems of communication and learning. Providing digital content as a service would replace the traditional collection-centred, inward-looking data processing model, and turn collections into processes rather than products (Hughes 2011; Peacock 2008; Refland et al. 2007).

It is still a long way to the realization of the new information space conceived here. Museums do not think of the Internet as an environment in which objects, collections and museums all function as discrete objects at the user's disposal. What we mostly see at this moment is an attempt to copy the museum's onsite institutional entity on the Internet. In the long run, this strategy will most likely not be sustainable, as the public will move to spaces where information is presented in an open-reading, re-usable form, if not made by the museum institution then these spaces will emerge from alternative efforts (i.e. the free online encyclopaedia Wikipedia). Museums are rich information spaces and can enhance the information dimension of the Internet. It is undeniable that much has already been achieved by heritage institutions, though their potential has not been realized yet.

The digitization of collections has first of all provided new means of display of and access to existing museum collections. Benefits of digitization are usually based on the use of networked media (the Internet), which allows access from anywhere anytime anyhow. Objects can be accessed at home on a desktop at night or on the street from a mobile phone during holidays, freeing constraints of opening

⁸ The Flickr Commons is a project launched in 2008 for heritage institutions to publish their collections in a "safe and regulated space" (Kalfatovic et al. 2009: 268). The main goal is to increase access to collections (Flickr 2015). Some museums may want to lock their online visitors into their Online Museum experience, in hope of maintaining control of the context (Marty 2011).

⁹ Varian (2010) uses as example the Internet: "it offered a flexible set of component technologies which encouraged combinatorial innovations" (p. 2). Its component parts are all bits (e.g., programming languages, protocols, standards, software libraries, productivity tools) that could be sent around the world with no manufacturing time, no inventory management, and no sipping delay. That is why innovation has had such rapid pace.

hours, location and selection available at the exhibition halls. On the Web, an object can be presented in many different ways at the same time, with different contexts and interpretations, independent from its location in a museum. Furthermore, digitization permits a dynamic form of documentation where interpretation can be edited and extended. New systems to order and manage objects give preference to changing and layered readings, emphasising individual meaning-making, including terms that liberate objects from the straightjacket of predefined frames of reference (Parry 2007).

5 The Tangible, Intangible and E-Tangible Object

Museums have always revolved around the objects in their collections and will continue to do so in the future, with the difference that digital objects will become more and more part of their collections. Even when benefits are accepted, including personalization, reuse, and access of otherwise not accessible materials (in high detail view, because of its fragility, or simply because of living in another part of the world); many museum experts continue to emphasize the irreplaceable nature of the original (Economou 2008).

Since museums are about physical and real objects, the digital and virtual have been conceptualized in opposition of it. Cameron observes that physical objects determine the classificatory framework in which objects are interpreted, so that digital objects exist only in relation to the physical “seizing the real, suspending the real, exposing the real, knowing the real, unmasking the real” (Cameron 2007: 69). However, there are other ways to conceptualize digital objects. Parry (2007) proposes a broader definition of objects when stating that objects in museums are “discrete, contained units of human experience, identified and extracted in order to help substantiate (to evidence), record or define an individual or collective epistemology (system of knowledge) or ontology (sense of being)” (p. 57). This definition, he argues, liberates objects from being real, copies, digital, information, and so on; instead it defines objects in accordance with their nature as tangibles, intangibles and e-tangibles (Witcomb 2007).¹⁰ As we have argued from the start, all objects are carriers of information, and there are good reasons for doing so. It supersedes thinking in terms of the dichotomy of the digital and the non-digital, the virtual and the real and the copy and the original, allowing an understanding of objects as independent from technology and institutional context. It furthermore explains how interaction with objects and the user’s active role in constructing knowledge emerged more or less naturally. Museums have been complex information management institutions all along, rather than collecting and ordering physical

¹⁰ Witcomb (2007) suggests to define digital objects in terms of the way collections are accessed: through onsite kiosks (one of the most popular early applications for digital objects), visualizing three-dimensional and virtual reality exhibits (a variation of the kiosk made 3D), post-visit souvenirs (take away products such as the DVD), mobile computing and handheld devices (personalized and customizable kiosks), and on the Web.

objects they have always been collecting and ordering information (Parry 2007). Digitization merely brought the object's nature as a polysemic informational carrier to the surface.

Over the past decades, the international community has defined tangible, intangible and digital heritage. Heritage refers to the legacy inherited from past generations embodied in physical artefacts, monuments and places (tangible), in traditions and living expressions (intangible), and in digital information resources (e-tangible). These digital information resources can include single objects (e.g. digital image), but also databases (e.g. collections of images) and the software to allow their access. UNESCO has made legally binding agreements among the States Parties to the Conventions about the preservation of tangible and intangible heritage (the UNESCO World Heritage Convention from 1972, the Convention for the Safeguarding of Intangible Cultural Heritage, adopted in 2003, and the Convention on the Protection and Promotion of Diversity of Cultural Expressions, adopted in 2005). International agreements about digital heritage have only been left at the recommendation stage (the UNESCO Charter on the Preservation of Digital Heritage, adopted in 2003). Long and short-term access to objects has been considered fundamental in all the drafted Conventions, not only in their introductory goals but throughout the measures proposed. Maybe this reflects the tendency that, while museum work revolves around objects, objects are more and more considered to be information carriers, either as tangible, intangible or e-tangible object. Defining an object tangible or intangible (or e-tangible) has consequences for its preservation. For instance, the sound of music can be defined as intangible unless the goal is to document the carrier (e.g. LP) in which case it becomes tangible. When the object is defined as intangible, migration into new medium is used to ensure continuous accessibility. However, definitions are not straightforward, as we have argued, due to the polysemic nature of objects that allows multiple meanings and multiple readings so that a digital recording of a concert can be tangible (physical location where file is stored), intangible (sound of music) and e-tangible (no need to digitize).

6 Conclusion

To increase the access to and use of objects, both now and in the foreseeable future, a policy on metadata is of crucial importance. Museums have collections of objects that can be read in different ways. The process of digitization has brought the polysemic nature of the object as information carrier to the fore. The context in which the object is interpreted is determined by the metadata provided. The user depends on metadata to interpret objects and she will select the object with the metadata that is most likely to satisfy his interest or information need. Museums can support and increase the use and interpretation of their objects by enriching their metadata. Practices of documentation, indexing and enrichment of metadata have to be adjusted to the new information space in which users interact and add self created content. The fragmented presence of museum collections in the information

space on the Internet might lead to new and surprising viewpoints on objects and their relations. In the digital information space, objects, metadata, collections, museums and users, all exist as independent nodes in a vast universe of data. In such an environment, objects are selected based on their accessibility and potential to satisfy personal information needs. The origin of the object and its related metadata is no longer of interest to the user accessing the object on the Internet, for the Internet has become origin and context of all objects and their relations. All of this does not mean that the museum as an institution may become redundant in the digital world. For, as Parry argues, trust may be key in the way the user experiences collections: “Knowing (and caring) about the difference between a collection of digital things that appears like a museum, and a museum that is presenting digital things based on its collection, comes down to questions of trust and definitions of authenticity” (Parry 2007: 68).

A metadata policy will help museums face the challenge to find their place in the new information space. Naturally, it would seem, the museum would serve as a node in a network connecting objects, information, people and places. This requires opening up to information exchange, transgressing the institutional boundaries in virtual spaces where new collections are being created. Only then can museums truly provide access to their objects.

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The Museum of Gamers: Unmediated Cultural Heritage Through Gaming

Serdar Aydin and Marc Aurel Schnabel

Abstract

In the 1990s when Nicholas Negroponte published his infamous comparison between bits and atoms for *Wired* magazine, it was no longer strange to talk about a new concept for galleries, libraries, archives and museums (GLAMs). Pointing to a new future for libraries, Negroponte was already aware that being digital had its own reality, which was to create ambiguity in relation to the value of physicality or pure materiality, a reality that the world had been accustomed to since the Industrial Age. The Museum of Gamers, as a conceptual proposal we argue for here, sits at the convergence of these contrasting realities. On the one hand, there is a cultural artefact that has a concrete value attached to its authenticity. On the other, its digital interpretation has its own systems of values about being. And the visitor cares about a GLAM's auxiliary services as much as the objects. As information is now available everywhere, people expect a new normal from museums besides mere objects and explanatory texts next to them. As the emblematic medium of contemporary societies games offer engagement methods. Recent marketing strategies such as loyalty games and gamification prove that use of technology is moving ever closer to video games and game-design methods. The Museum of Gamers is a creation not only for the dissemination of cultural heritage information but also for its production through contemporary media technologies.

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© The Author(s) 2016
K.J. Borowiecki et al. (eds.), *Cultural Heritage in a Changing World*,
DOI 10.1007/978-3-319-29544-2_8

1 Introduction

A decade ago, William Mitchell made a reference to Louis Kahn by adapting his brick metaphor to a pixel: ‘What does a pixel want to be?’ (Mitchell 2005). Kahn’s earlier version served to emphasise the material in architecture, whereas Mitchell stresses the ‘meta-material’ of digital world. This chapter looks at digital heritage and the use of contemporary media in museums. For us, whether a brick or a pixel, the aim of our thinking here is the same—it is not primarily about the technology but about people and their participatory experience.

Asymptote Architects were commissioned to design the Guggenheim Virtual Museum (GVM) in 1999. Planned to be one of the branches of the Guggenheim chain all over the world, the GVM was the first museum in cyberspace (Rashid 1999). Before the fully interactive multi-dimensional web-based environment of the GVM was launched, Alexander Galloway (author and associate professor in the Department of Media, Culture, and Communication at New York University) commented on the project in an interview—“It is exciting because 3D is a whole new realm, ready to be explored. . . If (the museum) is as good as *Half Life*, it will be a winner (Spingarn-Koff 2000).” Within the confines of then-current technologies, the GVM may mark the peak of the concept of the New Museology, a thought experiment on museums, which started before this millennium. However, as Galloway cynically denotes with a reference to a popular video game, new contemporary media applications likely offer more than imitating the real space of a museum in a skeuomorphic manner. In technological and economic contexts these kinds of initiatives, whether the result is a success or failure, are valuable contributions. But it would not be wrong to claim that the GVM was a model that mastered the idiosyncrasies of its physical precedents.

Moving from such a broadcast model to an internet model, the way for information to reach the receiver is multiplied. Museums have deployed the broadcasting model for many years. The inevitable change of the model forces museums to adapt. The magnitude of social media indicates heritage institutions should seek innovation. In 2012, Pennystocks designed a web page to count and display ‘how quickly data is generated’ through a range of social media platforms. The counter indicates that the number of uploads to Instagram exceeds 40,000 images within just a minute (Pennystocks 2014).

Digital networks create socially interactive communities online that easily create their own collections via the web. Facebook and Twitter are only two of many great examples for data aggregation all around the world. Because these networks help people tell their own stories and share contents museums may look to their participatory ways of communication to benefit from such new media technologies. However, questions of inequality and privacy also have legal and ethical implications. We can first discuss this while introducing the concept of the Museum of Gamers.

2 Gamers

The Museum of Gamers is populated by gamers. But who are these gamers? The answers to this simple question may sound as inchoate as our statement is simple. Statistics may malfunction and lead us to false assumptions. Figures from the US show that the average video game player is 35 years old (ESA 2015). However, it would be biased to deduce that video games appeal particularly to young generation. The reason why game playing frequency decrease with age is dependent on a range of determinants.

Borowiecki and Prieto-Rodriguez (2014) investigates video game playing as a cultural consumption like other art activities by taking into account socioeconomic variables as well as demographic and geographic factors. They divide gamers into two groups: those who never play and those who are likely to play, adding that they are both ‘heterogeneous populations’. Their results show that ‘affinity with new mediums’, i.e. overcoming technological barriers, is a highly significant determinant in engagement with game playing. According to experiments, gamers aged between 63 and 92 have ‘higher well-being and lower depression rates’ compared to peers who do not play regularly (Borowiecki and Prieto-Rodriguez 2014). In other words, video games appeal to the elderly as well as other means of cultural participation. Another grouping of gamers may be defined by gender difference, i.e. females play less than males. Apparently, the definition of gamers requires further investigation to go beyond binary conclusions while deal with the heterogeneity of gamers. But, here are gamers characterised with regards to the role they are entitled to in literature and philosophy.

Baudrillard is ‘ambivalent’ about gamers who, he says, express boredom from the banality of the actual world in game worlds (Coulter 2007). For him it is better to be a gamer than a jogger, who is primarily concerned about health, to engage with society in the production game. A gamer is an experimental explorer, a traveller into our future of digital realities (Baudrillard 1993). Can we generalise procedurally confined virtual spaces of game worlds as digital realities that his gamers are to explore? Baudrillard does not put it this way without a reason.

For an instant, let us ponder whether these digital realities—that we want the new museum to use so as to access an unmediated cultural heritage—can be discussed in a political manner. One of the top promoters of the Information Age, former US Vice-president Al Gore, defined a Global Information Infrastructure (GII) in a speech:

I believe that an essential prerequisite to sustainable development, for all members of the human family, is the creation of this network of networks. To accomplish this purpose, legislators, regulators, and business people must do this: build and operate a Global Information Infrastructure. This GII will circle the globe with information superhighways on which all people can travel (Mosco 2004: 39).

Deleuze helps us understand the nature of these superhighways with his well-known quote:

A control is not (no longer) a discipline. In making freeways, for example, you don't enclose people but instead multiply the means of control. I am not saying that this is the freeway's exclusive purpose, but that people can drive infinitely and 'freely' without being at all confined yet while still being perfectly controlled. This is our future. (Deleuze 1998: 18)

Thus Deleuze makes a distinction in the history of the world that was previously read as 'disciplinary societies' by Foucault. Instead, Deleuze introduces the 'societies of control' that are based on 'flexibility' which is fetishized by new mediums via all kinds of parameters and modulation tools. Today's most prevalent museum concepts emerged at the threshold of 'disciplinary societies' of post-industrial world after the 'society of sovereignty' classified within the medieval. The Brooklyn-based arts blogazine *Hyperallergic* makes a very good point in Twitter by asking their followers: 'Why don't more Americans go to Museums?' (Vartanian 2015). Nothing is very significant in this tweet, but the way it is carried through gives an answer. The explanation below the tweet clarifies, "in the past we may have turned to pollsters or psychics, while today we turn to Twitter to look at the hive mind and discover why..." That is the way how things work today; it is no longer a 'disciplinary society' that deploys physical means like museums for information delivery. Instead of actual documents and ink signatures there are soft-copies encrypted with codes and passwords. But what have gamers to do with this?

In *Gaming: Essays on Algorithmic Culture*, Galloway (2006) elaborates an intricate relationship between video games and contemporary political environments. For him video games, almost without exception, are a fetishization of "flexibility" in "informatic control" as cinema was that of the "disciplinary society" in modernity. The former privileges horizontality, wherein the latter is vertical, hiding the message in depth. However video games let the gamer "learn, internalise and become intimate with a massive, multipart algorithm." Therefore video games are an emblematic medium of the allegory that addresses directly the contemporary political expression. By "play-acting" the gamer is taught the system gradually through the gameplay. To play the game one should execute the code of the system and to win the game is to know the system. In contrast to traditional reader-text hierarchy, games reduce it on a horizontal plane, with the gamer in the act of gameplay (Galloway 2006). So far, the text may be understood as a prescription that tells museums to do games to prevent self-extinction. However play-acting easily undermines the real purpose if the key element, flexibility, is exposed to over-exploitation via algorithms.

Nordin (2012a) examines the futures (plural) of the algorithmically wired world by looking at Shanghai Expo 2010. By analyzing a digital media application that visitors experience at the Siemens pavilion, she argues that there is an ambiguity between the freedom given by technology and its results that generally have contradictory impacts. The faces of visitors who enter the Siemens Pavilion are tracked and turned into avatars. Eventually, each avatar is displayed on the screen, singing a song together in the form of pre-programmed design. Every visitor has a chance to be a star only provided that she/he agrees to the condition of being an

avatar, forfeiting identity. Nordin concludes that to build pluralistic imaginings, sustaining contestation between players within the algorithm is the solution; this is in contrast with disingenuously putting everyone into a harmonious hub defined by algorithms that eventually assimilate identities (Nordin 2012a). Her advice for contestation sounds similar to Buckminster Fuller's platonic 'World Game' where nobody is allowed to gain advantage at the expense of somebody else. But it is critical to note this difference: Nordin argues against the purely harmonious clustering of such a holistic view.

Museums can take a role in Nordin's 'futures', with a mission akin to being like a "hacker" of this system. Hackers generally do "illegal" stuff through the holes of the net. But what about a hacker being a legitimate company, asks Vincent Mosco in *The Digital Sublime* (2004). His exemplary case reveals a conceptual perspective in this regard. In 1999 Zero-Knowledge Systems (ZKS), based in Montreal, reacted against a code in Intel's Pentium III processor. Their website showed how to activate the embedded code which tracked user movements. Admitting the existence of the code, Intel responded with software to disguise it and even made an agreement with an anti-virus software company to turn off ZKS's "hostile code", which was virtually impossible. Mosco says that 'there is a trickster quality' in this case. In the information age, museums may have similar responsibilities to deliver 'real' information to the public. Advocated by Nordin contestation can be a key concept for such platforms.

So gamers constitute a perfect clientele profile for museums to explore gold mines hidden in information networks. Following Baudrillard's definition, the Museum of Gamers is a virtual hive that feeds and stocks our 'travellers' who allegorise Deleuze's definition of the "control societies". To allegorise means to be creative, not merely commenting or scanning through (Galloway 2006). Unmediated cultural heritage as interrogated by the RICHES Project can be then implemented. Fervent attempts to implement mere social media applications are inclined to being a part of the control society throughout its system. That would fetishize the information that is expanded by links and algorithms without fair play. In other words, as the distinction between users/creator and work/leisure is disappearing through networked relations, museums can embark on initiatives that are more ethically-engaged forms of social collectivism within digital realities.

3 The Museum

A very commonly-referenced diagram of the 'Reality-Virtuality (RV) Continuum' by Milgram et al. (1995) is a classification that grounds itself less on experience than on the medium (Fig. 1). As described by its authors "(it) is limited strictly to visual displays." As discussed above, the Guggenheim Virtual Museum is exemplary of this attitude by analysing a linearity between reality and virtual. The RV Continuum is ill-defined unless the reality is reduced for comparison to the same plane as the virtual. But it is possible as long as the focus is on the technological side.



Fig. 1 Diagram of the reality-virtuality (RV) continuum (Milgram et al. 1995)

Table 1 Virtuality matrix (Richens 2014)

Visitor	Site	Content	Richens' definition	Schnabel and Aydin
Real	Real	Real	Reality	
Real	Real	Virtual	Augmented reality	
Real	Virtual	Real	Mixed reality	
Real	Virtual	Virtual	N/A	Museum of gamers
Virtual	Real	Real	Telepresence	
Virtual	Real	Virtual	N/A	Museum of gamers
Virtual	Virtual	Real	Virtual museum or set	
Virtual	Virtual	Virtual	Virtual reality	

The diagram of the RV Continuum consists of a line between opposite ends wherein anything named as Mixed Reality (MR) if not fully real or fully virtual. MR applications include Augmented Reality (AR) and Augmented Virtuality (AV). With reference to museums, we can still refer to Richen’s Virtuality Matrix for an explanation of experiences (Richens 2014). Again, this is because it is based not only on technology but in relation to visitor-site-content aspects (Table 1).

The two types of applications have not been met yet. The Museum of Gamers is located on two slots. The upper one consists of a real visitor(s), a virtual site(s) and a virtual content(s), whereas the lower one follows a virtual-real-virtual sequence. This suits Mitchell’s question: “What does a pixel want?” For Murray (1998), there are three key pleasures in cyberspace: immersion, agency and transformation. Among these three, the RV Continuum and the Virtuality Matrix only touches on the first one, immersion. The fun part of cyberspace starts with the second, agency (meaningful experience) and continues with the third, transformation (fully-fledged freedom granted in digital realities). And he suggests that all of them exist in games.

The world’s largest LAN (Local Area Network) party which hosted 22,180 game players was held at the DreamHack Winter 2013 in Jönköping, Sweden (GWR 2015). Calling itself “The World’s Largest Digital Festival”, the event beats its own record repeatedly since its first gathering in 1994. After 20-plus years the organisation still keeps its average attendee age at 18.3 according to 2014 figures, with several hundred thousands more visitors watching online via Twitch.tv (Cordell 2014; Segal 2014). These intriguing numbers indicate that games can be more than an individual play-act, occupying online platforms, stadia and sports arenas to attract visitors at all age to socially engage with each other whether they play or not. Several similar events all over the world (e.g., Esportspool 2015) also break boundaries of time and space.

E-sports are not fully indiscriminate though, naturally having the symptoms of games as culture (Salen and Zimmerman 2004). But the question to answer is how games create engagement, content production and interactivity in active and passive forms of experiences. Game design methods offer a wide range of techniques that are modelled in the MDA (Mechanics-Dynamics-Aesthetics) framework by Hunicke et al. (2004). Gamification that is to ‘use game design elements in non-game contexts’ is a controversial term in game design context (Deterding et al. 2011). We are not going to discuss this in depth. We are interested in the potential that games offer for more in-depth discoveries within and outside cyberspace. Briefly, museums can focus on the core of games instead of mere interactive screen technologies to engage people with collections. This requires a cyber-perspective rather than simple virtual/real differentiations that focus on technical, or infrastructural aspects like the type of display medium even though this is easily appraised as a solution by the critics of the New Museology movement (Mancini 2008). In New York City, MoMA’s collection of video games is exemplary to this kind of new curatorship that resonates with the New Aesthetic art movement that we will touch upon later (Antonelli 2012).

Going back to the “disciplinary societies” of modernity, museums served a specific audience. They formed exclusive and divisive platforms for the exposition of their collections (Ross 2004). Since the 1970s, this has changed and the idea of diverse participation at all ages has gained momentum together with movements like the New Museology (Bennett 1988). But museums are at least decades-old institutions, therefore, the New Museology had to face resistance at the beginning (Ross 2004). The profound use of internet and social media causes pressure for museum curators to seek innovative ways that meet present demands. It is no longer the collections but the services and marketing that make a difference for people. While our focus is not to show or justify apparently prevalent changes for museums, nevertheless we see a correlation between the resistance towards the New Museology and the confusion on the New Aesthetics about art mediated by computers.

The definition of unmediated cultural heritage is convergent with the New Aesthetic in which people like to tell and share their own stories through social media. James Bridle, who famed the term ‘the New Aesthetic’ at the SXSW interactive conference, aggregates his collection in a crudely curated way that resembles to social media’s anonymousness. Bridle’s collage of satellite images, pixelated screens, slit-scanned photographs and so on, is exhibited on his Tumblr (Bridle 2015a, b). While admitting that he had been collecting those items to talk about an immediate new aesthetic of the future, Bridle’s blog can be seriously thought the ‘museum’ of what The New Aesthetics is meant to expose (Bogost 2012b). In Bridle’s own words (2013):

It (the New Aesthetic) is an attempt to “write” critically about the network in the vernacular of the network itself: in a tumblr, in blog posts, in YouTube videos of lectures, tweeted reports and messages, reblogs, likes, and comments.

Bridle’s introduction to the New Aesthetic quickly sparked optimistic (Borenstein 2012) as well as contrary opinions (Sterling 2012; Berry 2014).

Sterling's response on *Wired* propelled much of the discussion. One of his arguments for ignoring the project as art—"machines are never our friends"—is a reflection on the scope of the New Aesthetic which is bounded to the relations between humans and computers (Sterling 2012). Borenstein then relates the New Aesthetic to a movement in philosophy called Object-Oriented-Ontology (OOO) that unprivileges the human-centric relation with other things and instead favours every possible relations between them (Bogost 2012a). Bogost (2012b) who is deeply affiliated with the OOO takes this seriously and suggests Bridle extend this relationship to a wider spectrum. Bogost's interpretation of OOO concerns the experience of objects, put with a metaphoric question:

Why stop at the unfathomability of the computer's experience when there are airports, sandstone, koalas, climate, toaster pastries, kudzu, the International 505 racing dinghy, and the Boeing 787 Dreamliner to contemplate?

As indicated in the introduction of this chapter, Mitchell had asked "what does a pixel want?" Being a video game designer, critic and researcher, Bogost makes a similarly inexplicable interrogation. In his article Bogost outlines his four suggestions for improving the New Aesthetic (Bogost 2012b):

- Look beyond humans and computers
- Take the experience of objects seriously
- Make collecting an aesthetic strategy
- Make things for understanding things, not just for human use.

Here we do not have to look into each of them specifically. These suggestions will lead us first to the New Museology movement and then to the Museum of Gamers.

The New Museology scholars offer a wide range of expectations on museums' roles, purposes, management, services, curatorship and even its relevant scholarship (McCall and Gray 2014). Among many of these, interactive multimedia technologies is one of the developments that are advocated most (Mancini 2008). This, however, does not make a shift in the relation that museums make between things presented and visitors. Objects of collections, whether interactive screen technologies or an ancient pottery, are historically mediated through such institutions. As one of Bogost's suggests, museums should look beyond humans and computers; take the experience of objects seriously; make collecting an aesthetic strategy; and make things for understanding things, not just for human use.

This may sound fictional. But "the fictional is authentic, the authentic fictional" (Ruggeri 2015). When these words were published in BBC Travel, the title of the article, "Turkey's most creative, daring idea", did not reflect the merit of The Museum of Innocence, written/built by Pamuk and Freely (2009). Rewarded as "Europe's Museum of the Year" in 2014 (EMF 2015), the museum, and/or its eponymous novel, is perhaps "the world's" most creative and daring idea.

Pamuk collected regular objects before writing his novel, *The Museum of Innocence*. Representing life in Istanbul, these objects are attached to a woman

for whom the main character collects them in the novel. Being in a two-way communication, objects start to talk when the reader who is literally given a free-ticket within the novel visits the actual museum that displays the objects that are collected by Pamuk for creating his masterpiece. In this sense, Pamuk takes the experience of ordinary objects seriously. Pamuk not only aggregates things but also makes an aesthetic compendium form out of them. Bogost's suggestions are in parallel with Pamuk's creative and daring idea that is also attributable to the New Museology. Introducing the items in the collection, his catalogue-brochure, *The Innocence of Objects*, suggests that museums should look into ephemeral details of daily life (Pamuk 2012). The Museum of Gamers is meant to address this point through games and gamers that are identified as travellers into our future in digital realities by Baudrillard (1993).

Besides services such as souvenir shops, coffee shops and restaurants, and even restrooms on which our museum preference for leisure time heavily depends, access to museums is mostly relevant with the engaging quality found in exhibitions. One example for engagement was the *Demented Architecture* exhibition at the City Gallery in Wellington (CGW 2015). *Demented Architecture* carried some of the qualities found in the New Aesthetic project.

Basically, there was a long rectangular table in the exhibition hall and white Lego pieces were left on its top to be assembled by participants. First of all, it was "collectively intelligent" inviting everybody from all age groups to join in the creation of a constantly changing, open-end art problem in the form of architectural model making. Art and architecture are more often than not relevant to high-class expertise and elitism. But *Demented Architecture* is comprehensible, fun and unexpected in its result, breaking the boundaries of the mythology of the architect. In a constructive manner, *Demented Architecture* can be seen in parallel with the New Aesthetic based on Sterling's (2012) interpretation. But what actually makes it relevant to Bridles's New Aesthetic is that it looks like an 8-bit pixelated image. The process of its transformation from one art form to another resembles to real-time aesthetics of algorithms and digital representations. These blocks create pixelated patterns which, in turn, cause problems by experiencing, in Berry's words, "digital pareidolia", that is:

"cognitive dissonance with individuals expecting (pixelated) pattern aesthetics everywhere [...] Indeed, they may seek digital or abductive explanations for certain kinds of aesthetic, visual or even non-visual which may not be digital or produced through computational means at all, a *digital pareidolia*." (Berry 2014)

He also identifies one more aspect of the New Aesthetics' pixelated images and blocky representations which, stemming from early 8-bit images, are "mere ornamentation in actuality. . . and aestheticisation of computational technology." It is therefore "firmly human mediated", although the New Aesthetic's claim is 'seeing like machines' (Berry 2014). The same criticism is valid for the movement of the New Museology that focuses on mere renewal of museums' position in the society without a take-off from its nostalgia of institutional power. This discussion may lead us to a political discourse. By merely looking into social media where

aggregation is privileged more than a compendium form (Bogost 2012a), cultural heritage will not be unmediated. The Museum of Gamers aims at creating meaningful and aesthetic construction, not just aggregation within digital realities.

4 The Interplay

The attempt of this chapter so far has been to extrapolate how unmediated cultural heritage through contemporary (living) media can be redeposited to museums. In the first chapter where gamers are analysed, the key reference is Nordin's conclusion on algorithmic future(s) of the world, advocating "contestation" for subjectivity specifically in interactive technologies (Nordin 2012a). Consequently, museums are appointed to a "trickster" role to occupy a vectoral space between two forces, "subjectivity" (social responsibility) and objectivity (institutional background). The Museum chapter interrogated further digital realities to show a correlation between the New Museology and the New Aesthetic. Respectively, "inclusiveness" and "indiscriminateness" from the two are discussed on the basis of Object-Oriented Ontology (Bogost 2012b).

Play is the touchstone of everything else being discussed here. Play is what gamers are addicted to. Play may refer to a do-it-yourself (DIY) manner, to decentralised and collaborative activism in its romanticism within social context, or to simply animals play-biting each other. The architectures of such romanticism matters most (Wark 2015). SimCity™ has been a historic game that is most articulated with the god-like role of architects whose sense of aesthetics are relied upon to create 'beautiful' environments for others. The game mechanics of SimCity displays a lo-res representation of supposedly real data. The play does not privilege other objects within the game, articulating a special mission to the gamer. SimCity exemplifies Nordin's criticism of contemporary digital media use. As a commercial tool, it works extremely well. For museums the architectures of play should be able to permit high-definition realities of low-class/ordinary objects. Then the behaviours, barriers, environment and the motivation of gamers together with other objects start to be of use. This is most relevant to the transformative power of play. Salen and Zimmerman (2004) explain transformative play:

(It) is a special case of play that occurs when the free movement of play alters the more rigid structure in which it takes shape. The play doesn't just occupy and oppose the interstices of the system, but actually transforms the space as a whole [...] bouncing a ball against a wall is at odds with more utilitarian uses of the architecture. At the same time, the action conforms to certain rules afforded by the formal structure of the building, leading to a particular type of architecture.

Transformative play unnecessarily requires the creative and destructive nature of people who are represented as non-players in SimCity. The game is set up as if the player, having the role of the mayor, is the god. Binarised data then is useful but the play is not transformative in the sense that it does not permit playing the game from a non-player's point of view.

Following his keynote address at the transmediale 2015, McKenzie Wark, who writes about media theory, critical theory and new media, discusses SimCity and similar role-play games with the audience members (Catlow 2015). One of them likens it to “madness” by referring to an allegedly Einsteinian quote of ‘insanity’ which is “doing the same thing over and over again and expecting different results.” An interesting question asked of him is “what kind of play do we need to avoid this madness?” Wark does not give a concrete reply. But he explains that “most data does not collect itself, there is human-agency involved [...] is unconscious.” The moderator of the discussion, Ruth Catlow, insistingly goes over the point by asking “is it just hard to [do] that with algorithms ‘replicating’ artificial intelligence and artificial human feeling?” Wark’s conclusion is that “it is kinda useful to think of yourself not as the playable character but as the non-player character. Most games have other humans at the background, or other figures, that are governed by the algorithm. It is like you play the game from its point of view other than from the point of view you are given” while pointing to a target that is “repurpos(ing) the game to achieve that goal because we are all non-player characters in a game that no one is controlling.” Then Catlow recalls a sample: Julian Oliver’s 2nd Person Shooter (2ndPS) game where the player sees through the eyes of the shooter while running away from it (Oliver 2005).

So following transformation, agency comes in relation to the experience of the player in a game. And instead of a Hegelian first-person experience, Wark’s conclusion is liminal to an object-oriented operation which is distinctive to a protagonist/antagonist dogmatism. Julian Oliver’s 2ndPS is a good example for critiquing this point. He explains:

“In this take on the 2nd Person Perspective, you control yourself through the eyes of the bot, but you do not control the bot; your eyes have effectively been switched. Naturally this makes action difficult when you aren’t within the bot’s field of view. So, both you and the bot (or other player) will need to work together, to combat each other” (Douglass 2007).

Games build experiences for players (Salen and Zimmerman 2004). In a chapter titled as “Games as the Play of Experience” in *Rules of Play*, Salen and Zimmerman (2004) characterise play this way:

This is play: the experience of rules set in motion. Players experience this system: as blinking pixels on a screen, as sharp electronic sounds from a speaker, as sweaty fingers on a trackball and button, as lighting-fast strategic planning. Play culminates in a whirl of perceptions and emotions, thoughts and reflexes, inside the mind and through the body of the player.

Sutton-Smith (1986) frames game experience with a model of five elements; visual scanning, auditory discriminations, motor responses, concentration and perceptual patterns of learning. Within digital realities, Oliver deploys the transformative power of play by dislocating vision on agency, which in turn immerses the player in a radical type of experience. So sensorial acts, physical reactions and cognitive mechanisms involved in games offer an aesthetic aggregation technique for the Museum of Gamers to focus on in more detail.

To this point we have touched upon the three key pleasures of cyberspace (immersion, agency and transformation) which are all found in games (Richens and Nitsche 2005). Play is an ambiguous term by nature which is widely discussed as such in academia and literature (Sutton-Smith 1986). The scope of this work does not allow further discussion here. But now, a brief introduction to a museum of gamers will be given, which attempts to bring these aspects of digital realities together with a design-research project.

5 A 'Museum of Gamers': Augmenting Kashgar

“Games are serious, more serious than life”—J. Baudrillard in *Seduction* (1979)

Augmenting Kashgar is a design research project in the field of digital heritage, which ties together architecture, history, and game design (Aydin and Schnabel 2015). Facilitating the revitalization of Kashgar's architecture, digital platforms are being designed and developed to enable the public to actively participate in the creation, interpretation and sharing of cultural heritage information. Having started in Hong Kong in 2014, Augmenting Kashgar is planned to be a digitally-oriented museum developed at DARA (Digital Architecture Research Alliance), bringing together researchers from China, Hong Kong, Canada and New Zealand.

Kashgar is the westernmost city of China, described as “the heart of one of the most lovely and bountiful oases in all Central Asia (Starr 2013: 307).” The historical urban fabric in Kashgar is “the best-preserved example of a traditional Islamic city to be found anywhere in Central Asia (Michell et al. 2008: 79).” However, Kashgar's enduring architectural heritage is threatened by unbridled pressure from fast urban development (Florenzano et al. 2010; Aydin and Schnabel 2014). Within an organic urban fabric, Kashgar preserves a unique architectural style and outdoor life through its narrow alleyways (Fig. 2).

This old city is a product of interwoven arrangements, where strong social relationships are fundamental to its agglomeration. Pyramidised through mud-brick houses, the outdoor space in Old-Town Kashgar resembles Cedric Price's 'Fun Palace' designed for social interaction (Mathews 2006). Mechanic qualities of the Fun Palace appear in a vernacular format in Kashgar. Tangible and intangible heritage complement each other in its multifunctionality. We call it play culture in which gossiping neighbours, children playing football, and even cats play-biting each other are involved as the elements, or objects, of the game. To interpret this complexity is to allegorise the political situation. This is not meant to be hard-core and one-sided ideological politics, but refers to the system that we are all in as parts of the 'control society' as elaborated earlier. Therefore, the project automatically obtains the quality of a museum in discourse as well as in outcome.

At this point, it is useful to track back and refer to Nordin's examination on “narratives at Expo 2010 Shanghai China as an instance of the local constitution of” the world's future (Nordin 2012a, b; Schnabel and Aydin 2015). Her departure point is the Chinese concept of *tianxia* (all-under-heaven) which refers to a



Fig. 2 Kashgar's old and new architectural exposition (Photo by S Aydin)

harmonious future. She elaborates her view via the SIEMENS pavilion that interests us most within this article. She writes:

Entering Siemens's harmonious and commercialized rendition of tianxia, we are photographed. As in a miracle of scientific development our faces appear on a film screen at the exit, manipulated to sing together in harmony with the Expo theme tune [...] We are allowed into the spotlight on the condition that we become avatars that sing simultaneously in one voice to the Chinese melody.

This accords with Deleuze's interpretation for the "societies of control". Her conclusion is that

The Expo worldview portrays itself as 'from the world', yet insists on the singular China's Future as the (Harmonious) World's Future. On this view, there is only one Future, and it does not welcome contestation [...] We can refuse scripting our songs in the pre-programmed manner suggested by pre-dominant imaginings at the Expo. It can indeed be possible to step up to the challenge of coeval multiplicities that time and space should present us with [...] Building such pluralistic imaginings of China in the world remains a task for future research.

The Augmenting Kashgar Project sits at the heart of the task that Nordin suggests for future research. To make an analogy, there are two players in this game: a top-down decision mechanism that seeks a "harmonious" future, and an ethnic minority that tries to endure its value within the circumstances of a contestation-zero atmosphere. Therefore the aim of this project is to provide this game platform without any interfering political dead-lock. Nevertheless, its message transcends the level of allegory to a creative recreation of heritage within digital realities. An unmediated form for the dissemination of Kashgar's cultural heritage information is to be designed through gaming which is to be a realm for contestation with an expectation for futures instead of The Future.

The project looks into borderlines between self-other, topophilia-topophobia and units-whole. The first is to argue about the identity, the second about the place and

the third being the time perception. These three aspects converge with the structure of previous chapters, namely gamers, the museum and the interplay. Gamers represent agency as an identity. Separating focalisation from agency is a game design problem to address. Via alienating disassociation from agency, the game manifests itself by not privileging a single type of experience. The museum as an immersive place is created with relationship between possible game worlds. And the transformative power of contestation brings a meaningful interplay between rigid structures of real conditions and possible digital emancipations.

6 Conclusion

The Museum of Gamers frames a theoretical discourse on the place of living media in which games are the most dynamic. Derived from Negroponce's comparison between bits and atoms, it is emphasised that contemporary media is promising. This chapter argues that it is more than a technological change which is to burden museums into bigger responsibilities. Nevertheless the changes are seen and proven as opportunities throughout the text. The analogy of Mitchell's empathy with pixels emphasises how one of the greatest names of modern architecture, Louis Kahn, communicated poetically with a building material, namely brick. There may not be much difference between the subject-matter of architecture and that of digital realities. But our focus includes Object-Oriented-Ontology by connecting the New Museology and the New Aesthetic movements. To some extent the chapter describes the interplay where three key pleasures of cyberspace are completed by showing how they are brought together. In the last part a design-research project, *Augmenting Kashgar*, is briefly introduced where the core component of this project is to enable interaction with the objects in question, which are the narrow alleys of Kashgar. Interpreting the diachronic details of lived lives in Kashgar via games presents a sample task for developing an unmediated cultural heritage platform where contestation brings engagement and interactivity.

Acknowledgments This research is made possible through the support of DARA (Digital Architecture Research Alliance), Strategic Research Grant at Faculty of Architecture and Design, Victoria University of Wellington, DRS (Design Research Society) and School of Architecture at The Chinese University of Hong Kong. Special thanks to Kashgar Karamat Culture Media and Xinjiang Institute of Architectural Design and Research for their help and guidance in Kashgar.

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Part III

Co-creation and Living Heritage for Social Cohesion

Change of Museums by Change of Perspective: Reflecting Experiences of Museum Development in the Context of “EuroVision—Museums Exhibiting Europe” (EU Culture Programme)

Susanne Schilling

Abstract

Europe is growing closer and closer together, society is getting more and more diverse and characterized by migration. Museums need to adapt themselves to this process and to become places where all members of society feel represented and are stakeholders in their cultural heritage. But what about local and regional museums which are preserving cultural heritage? Are these museums ready for this type of Europe? For a society that is getting more varied, with more frequent migration, and resulting in more mixed audiences and modern viewing habits and learning habits, how can museums prepare themselves for this challenge?

The museum development project “EuroVision—Museums Exhibiting Europe” (EMEE), funded by the Culture Programme of the European Union, sees these as fundamental questions. The core element of the project is the idea of Change of Perspective (COP), a three-layered concept which encourages multi-layered meanings in museum objects to become more visible, aiming to renegotiate the roles of museum experts and visitors and to strengthen international networking between heritage institutions in order to broaden national perspectives on heritage and overcome Eurocentric views.

The EMEE project develops theoretical input on Change of Perspective but also puts into practice the ideas and reflects the experiences of international and interdisciplinary cooperation. The concepts developed by EMEE project are put to the test and conveyed to visitors and museums experts not only through the contest for young designers and scenographers, but also through the EuroVision Lab., an experimental series of exhibitions and actions. Ideas as well as statements of the executive museum partners provide an insight on how the Change of Perspective can be implemented in the museum work and contribute to presenting cultural heritage in a contemporary European way. The

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experiences of EMEE are conducive to the discourse and dialogue on cultural heritage in a changing world.

1 Societal Changes and Challenges for Museums

Societies are never a static and unchanging construct, this is also true for the European society, which is constantly transforming itself. As museums are closely connected with the society in which they are situated, societal developments bring with them the need to react and adapt. Museums are supposed to keep and display cultural heritage, to make it accessible and to transmit its meaning. This can only be done successfully when museums closely observe societal changes, identify the challenges, and change their way of interpreting, exhibiting, and mediating cultural heritage. The twenty-first century brings many challenges for museums, four of which will mainly be tackled by the museum development project “EuroVision—Museums Exhibiting Europe” (EMEE).

Firstly, there are demographic changes that call for museums to react. The European society is getting older with the population pyramid losing its shape as more and more elderly people are replacing a diminishing group of younger people (Gans and Schmitz-Veltin 2010). This brings numerous challenges mostly discussed with relation to the economy and to pension schemes, but also relevant for museums as young people are the visitors of the future. Migration has also changed and continues to change the society. People with different migration histories and with different backgrounds with regard to culture, identity, values, and experiences do not only form the European society, but also the one in which the respective museum is directly located. So for museums the task is to represent different communities instead of concentrating only on the majority society (Kaiser et al. 2012).

Secondly, a shrinkage of public space is noticeable, public in the sense of being open to all individuals unconditionally (Leggewie 2015). This development can be counteracted by museums by opening their premises not only for exhibitions but by turning them into social arenas where everybody is welcome and respected and allowed to speak and be heard.

Thirdly, the developments in the sector of new media have led to a lower rate of face-to-face communication since many communication processes are now run digitally (Keller 2013). With the opening of museums as public spaces they can also become places of direct communication and exchange of knowledge and opinions. Finally, tendencies of individualization and privatizing can be seen in the European society which seem to endanger democratic participation (Beck 1986; Giesen 2007). By offering meaningful and engaging social experiences, museums can become places of close communication and bring people together.

These challenges museums face in the twenty-first century are a starting point for the museum development project “EuroVision—Museums Exhibiting Europe”.

The project develops strategies on how to react to contemporary changes and attempts to offer museum tools for their daily work.

2 Role of Museums in Societies and the European Union's Ideas for Museum Development

The vital and important role of museums in the process of transmitting cultural heritage and with it cultural values is generally accepted. Because of the importance of museums in this process their role has been under review, especially when it comes to questions of whose culture is transmitted by whom and who belongs to the desired public (Ambrose and Paine 2012, 25). Two fields of debate are opened by these questions. First, museums need to define which story they want to tell and in doing so, whose cultural heritage and values they want to transmit. Those of the majority society or those of a society characterized by diversity, those of a nation and its rise or trans-regional ones showing connections beyond borders? Second, museums are facing the challenge of determining who is going to tell the story. Researchers and academics as experts on certain topics or museum users and members of the community whose story is on display? Museums cannot ignore the increasing demand for representation within a museum context voiced by different groups. Groups who have been underrepresented, be it subjectively or objectively, e.g. women, minority ethnic groups or people with special needs, are more actively claiming their representation in heritage institutions such as museums (Ambrose and Paine 2012, 25).

Museums arose in the time of nation building and helped in forming the national identity: something that is nowadays deeply contested. Museums gathered and displayed what was and still is regarded as cultural heritage, as well as expressed national identity by exhibiting that which was declared a common and shared culture of a nation. Establishing social cohesion amongst individuals usually works through social relationships. As this is not a working concept in larger groups, a common shared culture served as a foundation and further on, as legitimisation of being a nation (Macdonald and Sharon 2003). Of course museums did not only display and transmit what was and still may be regarded as national culture, but also objects from other cultures and nations were collected in order to show the power of the exhibiting nation. The singularity was frequently made perceptible by strict spatial segregation dividing 'home' and 'foreign' into their own special room or section of the museum (Macdonald 2003). The concept of national identities has been called into question and substituted by some with identical concepts of "post-national" character (Macdonald 2003, 123). When regarding national identities as non-sustainable, the question is raised as to which identical concepts could be fostered instead. Identity is more and more regarded as being shapable by each individual in a process of individualization. Museums as places where identity can be transmitted and articulated therefore they need to change along with the identities of its visitors.

Museums play a crucial role as “keepers of the collective memory”, in the best case they reflect change and continuity in cultural values (Ambrose and Paine 2012, 7). Museums are not only delegated to present and reflect on bygone history but also make a connection to the present. Another task that needs to be fulfilled by museums is to connect citizens with their region or community, to represent all groups forming this community, and this includes vulnerable, underprivileged, or underrepresented groups.

The European Union perceives museums as being of great importance for societies and understands museums as keepers of the European cultural heritage in an integrated Europe. Museums shall interpret and present their collections in European contexts and thereby help to develop a collective identity in multi-cultural societies, following the EU motto “United in diversity” meaning, cultural diversity shall not be negated but preserved (European Union 2007, Lisbon Treaty, Article 167). Strong national narratives are not supposed to be the basis of the European identity but cultural diversity and its acceptance and appreciation. Also the EU sees participation and activation of the visitor together with social integration of disparate lifeworlds as an important tool for present and future museum work (Kaiser et al. 2012). This means much more than implementing a so-called welcome culture, but perceiving visitors as co-constructors of topics and meanings and in mutual negotiations.

3 EuroVision—Museums Exhibiting Europe (EMEE)

The EU recommendations on how museums should perform in order to strengthen the European identity does not answer the question of how a museum not explicitly engaged with European history can succeed in this the EMEE project. Geared to local and regional museums that tries to preserve the cultural heritage on site, the EMEE project tries to find an answer by developing and making applicable the concept of Change of Perspective (COP) which offers ways to broaden the meaning of museum objects by integrating trans-regional, trans-national and cross-cultural European layers. Additionally the COP concept proposes a modification in roles that characterise those between museum users and museums experts and fosters closer networking between cultural institutions.

The starting point of the project EuroVision—Museums Exhibiting Europe—which is located at the intersection of science, practice, tradition and innovation—is the principle of multiperspectivity. It is one of the postulates of the academic discipline of history didactics. One of the premises of this rather young discipline, emerging in the second half of the twentieth century, is the understanding that historic cognition and exposition is always perspectively situated. As historic events have been experienced differently by various social groups it is necessary to perceive and depict those different perspectives. The postulate of multiperspectivity should not be confused with tolerating different personal points of view, but is always connected to social stands such as religious, political, ethnic or sociological stands (Pandel 2013). On this theoretical groundwork the project

consortium of the museum development project EMEE, supported by the European Union Culture Programme, started to think about how museums can be encouraged to Europeanize themselves on multiple layers.

The project consortium combines the theoretical and practical competences of museum professionals from three national museums, with internationally renowned scholar practitioners of scenography/exhibition design and media technology, and academic disciplines in the field of Humanities and Social Sciences:

- National Museum of Archaeology, Portugal
- National Museum of Contemporary History, Slovenia
- National Museum of History, Sofia, Bulgaria
- Atelier Brückner GmbH, Stuttgart, Germany
- Monochrom Kunstverein, Vienna, Austria
- University Roma Tre, Rome, Italy
- University Paris-Est Créteil—ESPE, Paris, France
- Augsburg University, Augsburg, Germany

The project has an ambitious aim: to make museums more accessible in many ways. With the innovative concept of Change of Perspective the project wants to re-interpret museum objects and put them into a broader context of national and trans-national history. Visitors should view objects not only on a regional and national level, but also discover trans-national and European perspectives by means of new ways of presentation, performances and possibilities for participation. At the same time, the project develops creative concepts for audience development and visitor participation. Particularly by involving and activating the visitor, the project aimed to attract a rather large number of previous ‘non-visitors’ to the museums. The EMEE project aims at the europeanization of museums, whereby the term europeanization is to be understood in the first instance as “[e]uropeanization of objects and museum presentations” (Fuhrmann et al. 2014, 35) by making visible the European dimensions of museum objects and presenting their multi-layered meanings from regional via national to European and finally globally. Secondly, europeanization is understood as an “implementation of the EU guiding principles for the development of museums in Europe” (ibid.) by activating visitors and modifying the roles between museum users and experts. Thus turning museums into social arenas and fostering their internationalization.

The project is structured in four phases:

The first phase, ‘Planning the Change of Perspective’, lays the theoretical basis and provides the framework. In this stage a base line study was implemented, called ‘mapping process’, which collected and reviewed good practices from different country and allowed the formulation of some basic trends in the modern development of exhibition practices in Europe. This mapping allowed the approximation of the main concerns for: re-interpreting concepts, re-interpretation of examples, social integration, learning and information, public opinion studies, participation, activation, language of design. Running parallel to this was an intensive cooperation with non-visitor groups that laid the groundwork for the later ‘bridging-the-

gap' activities. The project created five Toolkits, intended as manuals which provide practical help and ideas for how the museum might re-interpret its objects within a European focus. These Toolkits include looking at: museums as social arena; bridging-the-gap to (non-)visitors; scenographic translation of multiperspectivity; as well as the usage of a social web which helped set the theoretical framework and define the main directions for further project research. A workshop accompanies every manual.

The second project phase, 'Creating the Change of Perspective', opened up several opportunities for applying the outcomes of the first phase. In so called 'Exemplary Change of Perspective Units' the five toolkits will evolve to explore specific museum objects, giving ideas on how to re-interpret objects in a European way, staging them according to their multiple layers of meaning, letting visitors participate in the creation of meaning, engaging non-visitors and using social media for interaction. In addition, an international contest for young scenographers has been launched that invited students and young professionals to stage re-interpreted objects and to make Europe visible within museums via scenographic tools. Phase three, 'Performing the Change of Perspective' is dedicated to the EMEE EuroVision Lab., an experimental series of exhibitions and events taking place at seven EMEE partner institutions. The EMEE EuroVision Lab. also works in part as a travelling exhibition where outstanding contributions to the EMEE Young Scenographers Contest are shown in four venues. To complete the project, phase four, 'Sustainability of the Change of Perspective' will sum up all the outcomes and conclusions in a final publication and conference.

The leading principle through all project phases is the Change of Perspective (COP). The concept is based on a discipline specializing in the area of historical culture, historical consciousness and historical identity: Didactics of History. Having its roots in the didactics of history, the concept of Change of Perspective (COP) proceeds from the assumption that the construction of 'European identity' is not something that is static. It is also not intending to replace national, regional and local identity references. Rather, this approach highlights the complexity of identity and the diversity of historical experiences and perspectives in a European context. In this method, European identity is understood as a willingness and ability to acknowledge and embrace diversity and to deal with it in a way that is aligned with the principles of mutual understanding, reciprocal recognition and tolerance (Rüsen 2002).

The second basis for the COP approach is the understanding that the meaning of museum objects is not inherent, but a result of deconstruction and construction. The message of museum objects is mainly generated by its recipients and depends on the context in which the objects are embedded (Thiemeyer 2011, 11). This understanding of the meaning of museum objects can also be found in Krzysztof Pomian's *Semiophoretheorie* [Theory of Semiophors] where an object is considered to be a carrier of a sign, a *semiophor* (Pomian 1998). Only when thinking of the meaning and message of museum objects as something emerging from interpretation processes, can the COP approach can be applied because it is mainly based on multiperspectivity. Visitors will be able to discover changes in meanings of one and

the same object depending on whether it is situated in a local, regional, national, European or even global contexts. Taking different perspectives and exploring a variety of possible meanings helps to raise the visitors' awareness of his or her own identity and illustrates to the visitor, whilst perceiving the European in the local and vice versa, that the 'European is not the 'other' when compared to the national, but the 'self'. Thus visitors are able to realise that various perspectives and identities pervade each other and can yield an expanded or deepened understanding of the cultural heritage within contemporary Europe.

Applying the COP concept to museum exhibitions in Europe implies reviewing and renegotiating existing and passed-on narratives. Multi-layered meanings, different perspectives on objects from other nations, cultures and social experiences need to be revealed and made perceivable for visitors (Schumann and Popp 2011; Macdonald 2003). Furthermore, emphasis should be placed on European links represented by objects. Trans-regional, trans-national and cross-cultural aspects should be highlighted and made more accessible and visible. Thereby the European dimension in objects is not meant to extinguish other, more regional, national or culture-specific ones, but to extend and complement them (Fuhrmann et al. 2014, 38).

The EMEE project has developed these three layers of COP in order to facilitate its practical application. The first layer of COP focuses on re-interpreting objects or object groups not in a one-dimensional, mostly regional or national way, but as multi-faceted objects with the potential also to present trans-regional, European contexts. The results of this re-interpretation are not intended to destroy previous interpretations but exist alongside and with them. The particular challenge is to communicate these multiple layers of meaning to the visitors by means of spatial and scenographic tools. The second layer of COP aims at activating visitors. Museums are asked to share their prerogative for interpreting cultural heritage and invite and acknowledge museum users as co-interpreters. Not only will this change of roles help to engage visitors and users more strongly with their museum, it will also help to turn museums into social arenas where people "continuously and routinely interact to produce, exchange, and consume messages" (Handler 1997, 9) and a voice is given to underrepresented groups who want and need to be heard. The third layer of COP calls for stronger international networking of museums and cultural heritage institutions. In order to re-interpret objects in a trans-regional, trans-national and cross-cultural context an international exchange is not only desirable but is in fact necessary in order to look at objects and collections from different points of view and to reveal their multi-layered meanings.

The COP concept is meant to be implemented in the everyday practical work of museums and heritage institutions. In order to make the theoretical concept applicable, five manuals known as Toolkits, as discussed earlier have been developed under the scope of the EMEE project. They shall function as the conveyance from theory to practice. Besides the EMEE ideas, they also transfer applicable ready-made concepts on how to implement the COP. Each toolkit thematically focuses on one EMEE topic. The first Toolkit '*Making Europe visible. Re-Interpretation of museum objects and topics. A manual*' introduces an analysis tool that helps to

re-interpret museum objects in a trans-regional, trans-national and/or cross-cultural way. The analyzing tool thus opens eight categories¹ in which the object might reveal its European dimensions and gives examples of how objects can be questioned. Toolkit two '*Integrating multicultural Europe. Museums as social arenas*' takes the concept of museums as social arenas as its starting point and develops ideas on how to open museums as public spaces to underrepresented and minority groups. The third Toolkit '*Bridging the gap. Activation, participation and role modification*' analyses obstacles hindering people from becoming active museum users and proposes strategies to bridge the gap between museums and non-visitors. Toolkit four '*Synaesthetic translation of perspectives. Sketchbook Scenography*' compiles tools and ideas on how to convey the multi-layered meanings of re-interpreted objects spatially and by means of scenography and taking into account visitor activation. The fifth and last Toolkit '*Social Web and Interaction. Social media technologies for European national and regional museums*' provides ideas on how to use social media for museums and heritage institutions not only as an advertising tool but as platforms to enable real communication and involvement by visitors and users. All five toolkits will not linger on a theoretic level only, but present best practice examples and actual implementation recommendations thus making them manuals to consult in everyday museum life.

As noted earlier, the EMEE Young Scenographers Contest was an EMEE project which implemented an international contest for young designers and scenographers through a public invitation to young people for their ideas of how to make Europe visible in objects of multi-layered meaning with the help of spatial design. Called 'One Object—Many Visions—EuroVisions' the central idea of the contest was to highlight the COP concept that museum objects should reveal their complex diversity of meaning. A trans-national or trans-regional object has various meanings spanning from national or local significance to the broader European dimension—and thus demands a multiperspective scenographic approach. Young designers were asked create ideas and develop design concepts for a multiperspective, scenographic presentation of museum objects. In this way the simultaneous appreciation of objects as elements of the local, regional, national or European collective memory were be offered to the visitor. At the same time, the goal was to find new trans-cultural approaches in order to stage national objects in a European context via scenography as a contemporary design language and new

¹ The eight categories are:

1. The object as migrant
2. The background circumstances of the making of the object
3. Cultural transfer by means of trans-regional networks
4. Culture-spanning contexts
5. Cultural encounters as theme of the object
6. Aspects of the perception of the self and the other
7. The object as icon
8. 'Object-narration'

For details see Fuhrmann et al. (2014).



Fig. 1 View into the travelling exhibition of the EMEE Young Scenographers Contest, here at the Museum im Palais in Graz, Austria, photo: Janine Pichler

formats of presentation to help initiate a European perspective for future generations of visitors.

The participants were free to choose between museum objects already re-interpreted as provided by the analyzing tool in Toolkit 1 or freely chosen objects. The assignment of task clearly defined that submissions were to make visible:

Change of Perspective from a local/regional museum object to a European/trans-regional object showing the European dimension” and “to provide a scenographic translation of perspectives that gives a multiple and synaesthetic approach to objects with a local, trans-regional or cross-cultural meaning” at the same time enabling visitors to “discover that one and the same object can be perceived in various ways and thereby can change its meanings (EMEE Young Scenographers Contest 2014).

From 60 entries coming from 7 European countries, 29 made it to the shortlist. The four winners (see Figs. 1 and 2) were chosen by a jury comprising of EMEE partners and international experts. The best submissions were put together for display in a travelling exhibition that will be shown in seven European countries.

The submissions reached very high standards in respect of their conceptual and plastic features. Nonetheless, many of them were superficial and worked with the obvious: stories of migration concerning people and objects. Expressing interdependent influences and connections, making different layers of meanings in objects perceivable and offering a possibility of injecting oneself in the process of the construction of meaning were unfortunately not realised by most of the participants. Ruedi Baur, EMEE jury chairman and communication designer states:

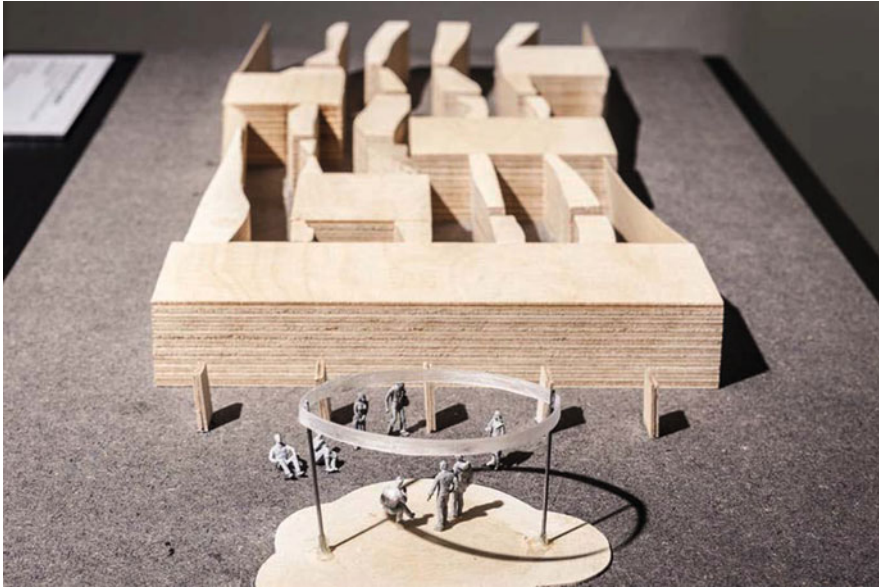


Fig. 2 First prize of the EMEE Young Scenographers Contest: “Did you hit the jackpot?” by Mirjam Scheerer, photo: Janine Pichler

[...] I am not quite certain whether the competition’s deeper meaning has been entirely decoded. The offered exercise was downright a revolution in the face of the current perception of history. The point was not only to make museums accessible to everyone by cultivating multilingualism and offering explanations incorporating knowledge gaps of visitors coming from afar [...]. (Baur 2015, 19).

This assessment aligns with the EMEE consortium view. Bringing out different, sometimes even contradictory layers of meaning in cultural heritage with respect to museum objects requires curatorial and scientific research. The process of staging objects in a way that makes multiperspectivity visible requires not only the creative work of the designer, but also constant input by the curator who has internalized the concept of Change of Perspective and is able to impart it to the designer. Staging objects in a way that will allow access to different layers seems to be a challenge which is not easy to solve. The visibility of different interpretations in one object and engaging the beholder to explore them is a feature rarely realized in the submissions. “The proposals we came to judge were rather mutual, which didn’t bother, but—I have to repeat—of real conceptual and plastic quality. But is this enough to change our view of Europe?” (Baur 2015, 23)

The final step in the EMEE project is an experimental series of exhibitions and activities called EuroVision Lab., running under the headline ‘One Object—Many Visions—EuroVisions’. COP is put into practice in various museums through a



Fig. 3 Museum speed dating in the MNZS, photo: Urška Purg, National Museum of Contemporary History Slovenia

variety of activities with public appeal and also in different exhibitions. This implementation in all consortium members' institutions and further associated institutions can be regarded as a field test of the theoretical framework developed in the initial project phases. By applying the Toolkits the participating museums take a step towards further europeanization and also gather valuable experience on the practicability of the EMEE ideas and concepts. At this juncture the EMEE EuroVision Lab. is still in the start-up phase. Two museums have opened their EuroVision Lab.s: the *Muzej Novejše Zgodovine Slovenije* [National Museum of Contemporary History Slovenia, MNZS], which is an EMEE consortium member, and the *Museum für Kunst und Kulturgeschichte Dortmund* [Museum of Art and Cultural History Dortmund, MKK] in Germany, which is a museum associated with EMEE. Both museums prepared an exhibition using participatory technologies.

The MNZS started an intensive collaboration with a group of young people who formerly belonged to the 'non-visitors' groups. Fifteen young people and fifteen museum experts from Slovenia and other countries were invited to take part in the project. From the beginning roles were switched: the group of young people were given the role of museum curators in charge of conceptualizing and realizing an exhibition. In a new format, called 'museum speed dating' (see Fig. 3), the museum experts presented their favorite objects of national cultural heritage with European references. The experts had three minutes to introduce their object to each of the young people who then as a group chose five objects based on their knowledge acquired in EMEE workshops on re-interpretation beforehand. With those five objects as a core, the group then created an exhibition that worked as a time capsule, bringing the visitors back to a living room in 1990 (see Fig. 4). The chosen objects were presented in the room and were accessible i.e. touchable and usable for all



Fig. 4 View into the EuroVision Lab., co-curated by visitors, of the MNZS, photo: Sašo Kovačič, National Museum of Contemporary History Slovenia

visitors who were ready to explore them and to discover their trans-regional, trans-national, cross-cultural and European layers. The exhibition was enriched by an accompanying programme, which for example, offered guided tours in sign language.

The MKK also developed an exhibition (see Fig. 5) using participatory technologies, but from a different starting point: migration in a specific area of Dortmund. From the beginning, it planned to give current and former residents of the street Münsterstrasse, often perceived as problematic district, a voice in the exhibition. The exhibition was not to be supported by items from its own or other museum collections but be put together through this form of co-curating. The curators fieldwork then began by interviewing residents of Münsterstrasse. In dialogues with the community, the exhibition grew; objects and topics found their way into the concept. People were encouraged to tell their stories and also stories of their ancestors who lived or worked in Münsterstrasse. Individual sections of the exhibition were developed by including topics and objects proposed by the residents. The MKK also created an accompanying programme, offering walks through the area depicted in the exhibition and initiating panel discussions and open forums on the topic of migration.

Both museums documented and reviewed the process of the exhibition development by using participatory techniques carefully and critically. It seems rather obvious that the traditional role of the curator had to be adapted in both projects. The question of how curators can and should fulfill their role in the curatorial process when using inclusionary practices and participative techniques has been



Fig. 5 View into the EuroVision Lab., co-curated by citizens of Dortmund, of the MKK, photo: Museum für Kunst und Kulturgeschichte Dortmund, Madeleine-Annette Albrecht

raised for decades. The imbalance of power between visitors and museum experts is a vivid field for discussion and representatives of new museology have spoken out in favour of including museum communities and audience participation which allows a critical debate on mono-perspectivism along with elitism and exclusionary practices since the 1980s (Carpentier 2014). Finding a new professional identity as museum expert is a process that is not without pressure and assessing the audiences in respect of co-curators needs is not easy: “Those arguing for constructing the visitor as relatively ignorant were accused of being ‘patronizing’ and of ‘dumbing down’, those who constructed the visitor as more educated faced charges of ‘elitism’ and of being potentially ‘exclusionary’” (Macdonald 2001, 133). Balancing the relationship between audiences and museum experts therefore depends on knowing the audiences and on building long-term relationships. Carpentier describes a participatory fantasy:

as a respectful and balanced negotiation in cultural production processes, where all become authors [...] in interpretation and production, where difference is acknowledged, and where all voices can be heard and used to structurally (and not occasionally) feed the decision-making processes (Carpentier 2014, 126).

The museum experts working in the EuroVision Lab. so far, have based their relationship with the co-curating audiences on dialogue and acknowledgment of their expertise. Concerning the development of the visitors’ engagement with their museum, the MNZS states:

The biggest treasure we gained from this process, besides connecting with other museums and helping the young to test themselves in the unknown situations, is the knowledge on how the young wish that history would be presented in museums, such that it would raise interest among their peers (N.N. 2015).

Also the curator of the MKK says that the participatory techniques applied eventuate in getting people in contact with the museum who have not been there before and to strengthen and intensify relationships.

On the downside, the establishment and continuation of those relationships requires more personnel than most museums can invest. Kaja Širok, director of MNZS, sees her museum turned into a place she always wanted it to be: "It's a place of sharing, it's a place for accepting diversity [...]" (Mayer-Salvi 2015, 00'25"). She also states that museum experts can learn from their audiences while co-curating. Nonetheless she admits that there were some doubts about the enduring commitment of the group they worked with. In the course of the participatory project a high drop-out rate was noticeable, the initial group size was nearly halved at the end (Širok 2015). The MNZS attributes this high drop-out rate mainly to two reasons: first, the participants, as non-visitors, could not estimate whether their personal interest suited the project's content enough as the field of museum work was new to them. Second, some participants underestimated the expenditure of time the project would demand. The high drop-out quote influenced the project progression as it forced museum staff to play a more active role at the beginning than first intended which in turn had an impact on the participatory character of the project and the switch of roles between museum users and experts. Moreover, criticism from the museum staff was voiced concerning the scientific quality of the exhibition curated by the non-visitor group. Isolde Parussel, curator for the MKK, noticed a change within the museum's audiences through the participatory project, they became more diverse and co-curators felt a strong connection to the museum. The awareness of and interest in the museum rose noticeably also among group alliances and clubs active in the fields of migration and urban development, the anchorage within the urban society became stronger (Parussel 2015). Both museums noticed that participatory offers cannot be and are not used by museum visitors without constant encouragement and support and demand an enormous amount of commitment from the museum staff.

When reflecting their own role as curators in the whole process, Isolde Parussel notes that the thematical depth and richness of details would not have been possible without the co-curating, saying: "Without including the citizens, deep drilling to this extent would not have been possible. [...] The participatory approach also allowed a significantly more detailed presentation of the Münsterstrasse within the exhibition." (Parussel 2015) On the other hand, an enormous amount of time has to be expended to successfully implement participatory approaches and she always felt a risk of not being able to cover important topics due to the lack of objects or contemporary witnesses. The process of planning and shaping the exhibition gets more dynamic when using participatory techniques (Parussel 2015). Kaja Širok sees the necessary adoption as a fundamental change of how visitors are perceived

and calls for history museums to accept the need for “active people and not static visitors” (Širok 2015). Also she states that participatory techniques, once applied, need to be taken serious and used in a responsible way with the aim to connect visitors and curators. Transferring power to the co-curators requires a new way of curating: curators can no longer be only the interpreters of cultural heritage, but become active workers in public relations by building strong relationships with the audiences and not only seeing them as tools for realizing a project, but as partners with acknowledged expertise. In this sense, curators and cultural professionals in the EMEE project are facilitators between audiences and heritage institutions, they encourage museum users to become active and enter the process of interpreting cultural heritage and ensure multivocality: “EMEE works in giving different voices to objects which were interpreted unanimously only by curators [. . .]” (Širok 2015, 2).

4 Conclusion

The EMEE project as a museum development project offers museums help and ideas for europeanization which is understood as making visible trans-regional, trans-national, cross-cultural and European dimensions in objects. It also strives for making museums more accessible, including museum users more effectively in the interpretation of cultural heritage. As a key concept for implementing this project, the Change of Perspective has been developed. This is a three level concept that calls first for re-interpretation of museum objects in a trans-national, cross-cultural way; secondly, for turning museums into open spaces closely following the concept of museums as social arenas; and thirdly, for stronger networking of museums from different countries and subject fields. The project started off by laying the theoretical groundwork and progressed into manuals, workshops and exemplary units to help to put the COP into practice. In order to test the ideas and to spread the COP concept further, the EMEE EuroVision Lab. was initiated, which included a series of experimental exhibitions and activities that tested the EMEE concept and give feedback. The first two EuroVision Lab.s—one by a consortium member museum, one by an associated museum—give an insight in how the three elements of COP can be connected and disclose both obstacles and challenges, but also the benefits and rewards of europeanization in museums. Crucial for successful implementation is the adaptation of the role of the curator in a sense that makes visitors active and serious partners in the process of re-interpreting cultural heritage in a trans-regional, trans-national, cross-cultural and European way and in order to show multi-layered meanings in objects.

Making and conveying history in a diverse Europe is one of the current topics in museology, the project *European national museums: Identity politics, the uses of the past and the European citizen* (Eunamus)² has created an overview of Europe’s

²Eunamus was a project funded by the European Commission under the Seventh Framework Programme from 2010 until 2013. Find more information on the website: URL: <http://www.ep.liu.se/eunamus/index.html>

museumscape and examined museum practices connected to European identities in order to give suggestion on how to determine their future roles, focusing on national museums. Following up on this, the EMEE project broadens the addressed audiences by reaching out mainly to smaller regional museums and offers concrete tools for implementing concepts of multi-perspectivity. Enabling museums to help building an inclusive, democratic European citizenship and developing new museum practices that help museums in mastering challenges that arise from processes of globalization, migration and mobility was the main objective of the project *European Museums in an age of migrations* (MeLa).³ The EMEE project partially seizes on MeLa's ideas and expands the theoretic approach by putting to the test implementation concepts in museums, both of consortium members and partner museums of different size and alignment.

Anchoring multi-vocal dialogue and the tolerance of different perspectives within museums is a process that needs constant and structured work and is time consuming. Museums willing to shoulder this responsibility have the opportunity to get closely connected to their audiences, to turn their institution into an open space where everyone's voice can be heard and to contribute to the emergence of a European identity in the EU motto "United in diversity".

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³ MeLa was a project funded by the European Commission under the Seventh Framework Programme from 2011 until 2015. Find more information here: URL: <http://www.mela-project.eu/>

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Technologies Lead to Adaptability and Lifelong Engagement with Culture Throughout the Cloud

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Abstract

Cultural heritage represents one of the most important drivers for personal development, social cohesion and economic growth in Europe. Although the general population is aware of this fact, cultural heritage is still underexplored and cultural activities are not incorporated into citizens' lifestyle. Technology offers a potential to increase awareness about cultural offerings and create a public engagement with Culture. The current digital solutions adopted by cultural heritage institutions fail to achieve a lifelong engagement, and thus do not support institutions in increasing the number of visitors and retaining them. This chapter illustrates how cloud-based technologies can be exploited to increase a cultural lifelong engagement. We use the cloud to support technologies that enable adaptive and personalised cultural experiences according to individuals' interests, co-creation of cultural heritage experiences, and active user contribution to social storytelling. The work presented here is a result of the European co-funded project TAG CLOUD.

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1 Cultural Heritage and Digital Technology: Paradigm or Reality?

Cultural heritage is an important asset and a strategic resource for social, economic and environmental development in Europe (European Commission—Press Release 2014). As stated by Jose Manuel Barroso, president of the European Commission between 2004 and 2014, it is one of the most important drivers for personal development, social cohesion and economic growth (European Commission—Press Release 2007). However, cultural heritage is still underexplored. The general public usually incorporates few cultural activities in their life style. According to the data from the Special Eurobarometer 399 on ‘Cultural access and participation’ (2013) the engagement with cultural heritage became depressed after the beginning of the financial and economic crisis in 2007. Figures suggest that: about half of the European population does not visit any historical monument or site; only 37 % of the population has visited a museum or gallery; and involvement in other cultural activities such as attending a concert or visiting a public library is less than 35 %.

Currently, museums and cultural heritage institutions have invested and are investing significant resources to introduce cultural heritage in the digital era. Curators and professionals in the heritage sector strive to attract, engage and retain visitors to heritage institutions (i.e. libraries, museums, archives and historical societies) using a range of digital technologies from relatively cheap interactive websites to expensive on-site 3D visualisations. Despite the usage of these technologies, no significant increase in the number of visitors has been reached. Few cultural institutions have incorporated innovative personalised digital approaches as part of their solutions, and few take into account cultural trends to engage visitors. Having said this, some cultural institutions have already integrate web 2.0 tools to enable users to share their experiences and create user generated material, in order to enhance their web presence and establish long term relationships with people (Ardissono et al. 2012). However, a wide part of European institutions do not yet incorporate technology for more than basic purposes, mainly focused in promotion (Saldaña et al. 2013), and this represents a major drawback where digital content about cultural objects is still ‘centrally’ produced by experts (e.g. curators, historians and archaeologists) rather than being co-created together with visitors. When personalisation is supported, it is also centrally defined and based on general views about the background and preferences of the general population. This means that experiences are adapted to common interests of clusters of similar users or stereotypes, but not to individuals with particular interests and preferences. Digital technologies support the creation of new ways of interaction between cultural heritage institutions and their visitors. They facilitate the move from consumer to active creator of personal cultural experiences. This chapter shows how the European co-funded project TAG CLOUD has confronted these challenges. With a multidisciplinary consortium formed by partners from five different European countries TAG CLOUD proposes to create lifelong cultural experiences by using cloud-based solutions that support adaptive and personalised cultural experiences according to individuals’ interests,

co-creation of cultural heritage experiences, and active user contribution to social storytelling.

The increase of the available information about cultural heritage on digital media, such as the web and social media, offers a potential to promote cultural heritage and develop new ways to participate in culture. The number of digital objects available in open data platforms has increased significantly. For instance, Europeana (2015), the European database for cultural heritage, currently provides access to over 33 million digitised objects, having reached 30 million objects in November 2013 (Report on the Implementation of Commission Recommendation 2011/711/EU). This means that, although around 82 % of Europe's cultural collections (on average) are still not digitised, the trend is to increase these numbers (Borowiecki and Navarrete 2015). Critically this amount of information may cause a loss of perspective about what is important or interesting for each user and/or may overwhelm them. While metadata structures such as those implemented by OGD (Open Government Data), and Europeana, that model cultural data through the EDM (Europeana Data Model) are helping to standardise the process of digital collection, a big amount of the available cultural digital content is still represented in non-standardised manners, and/or lack most of the fields of the corresponding metadata schema. This represents a big barrier to the access, use and re-use the content. The information should therefore be firstly curated and stored in a standardised way that will enable its future manipulation, use and re-use, and identification of what is relevant for whom. In that way, it is possible to provide suitable personalised information to each user.

The public, in general, differs when enjoying a cultural experience and this experience is composed of physical, personal, social context and identity-related aspects (Falk 2009). However, some of these aspects evolve and change during the visit to the cultural institution and/or the life of the user, leading to a need for continuous adaptation. Therefore, engagement techniques are required that not solely support user-tailored and personalised interactions with digital cultural artefacts, but also can adapt to the changing needs of the visitors. We observe that curators and professionals in the heritage sector recognise that lifelong cultural experience is the best way to engage the public. In fact, personalisation and adaptation play a main role for making the current cultural heritage experience a lifelong one (Wilkening and Chung 2009). For this purpose, there exists the need to dynamically update user profiles, to analyse past experiences, to collect past and current evidences, to remove, to add and change users' preferences, to track the interest and trends of the users in order to become a life representation of themselves, and to provide dynamic personalisation of the cultural experiences according to their current interests, their past experiences and the context of the current experience.

Current digital solutions for cultural heritage initiatives do not provide adequate personalised experiences (Vassileva 2012). Digital technology offers a potential to provide a suitable one-size-fits-one personalisation, as each individual is unique and thus needs a unique solution. For example, in the last years, web applications for commercial purposes have widely adopted the social web as a source of reliable

data for personalisation to increase their sales. Social media platforms offer different services, such as user models, and profiles of various entities such as people, companies and places. These social media profiles have associated information, such as name, location, and birthday that may be related to a person, company or place, as well as different relationships and interactions between people, such as: friendship, follower or followed, check-in, etc. Thus social media can provide a lot of information about the user in order to create a cultural user profile. His/her likes, interests, activities on the social web and also about his/her real life (e.g. check-ins into places, likes of music, film and place pages) are relevant. Also, information provided by his/her peers can be important for personalisation. Recently, cultural heritage institutions and curators have used different social media channels, such as Facebook and Twitter, to support the clustering of the users' community (Bernstein 2008). In addition to the acquisition of knowledge about the users, social media supports user participation and collaboration through virtual social interactions, and games. This can occur both in real time and in an asynchronous way. Social media also offers a new expression channel. The sharing of contents, such as videos, photographs and stories, can be exploited as a new source for unmediated heritage. But again, this approach, although relevant for cultural heritage sites, is still a step behind in providing a true individual experience.

In order to provide the proposed lifelong engagement and generate unique content for each user, current systems and solutions should evolve towards effective and adaptive cultural systems that aim to add value and new meaning to cultural digital artefacts and place users as active creators instead of mere consumers of cultural heritage. Cloud based systems offer a unique potential in this direction because they offer the processing of huge amounts of data that may come from different sources, and even at the same time; apply different treatments to the data in order to format it for the desired purposes; and offer a set of services suitable for each of the desired features. This is the reason that led TAG CLOUD to propose a cloud-based system to increase cultural lifelong engagement. The characteristics that this new generation of cloud-based cultural systems, such as the one developed by TAG CLOUD, offers can be summarised as follows:

- Exploration and discovery of cultural initiatives according to the users' likes, interests and preferences.
- Recommendation of experiences to new areas based on other users' cultural timelines.
- Co-creation of cultural heritage, as the process that both cultural institutions and users are involved in the generation of cultural contents and the forming of cultural experiences.
- Fusion between information from experts about artefacts and cultural heritage institutions (or mediated heritage, i.e. cultural heritage that is managed, held, curated, transmitted in or through cultural institutions) and cultural user-content from social media, also known as living media (or unmediated heritage, i.e. cultural heritage that is independently produced, transmitted, shared or exists

without the management involvement or mediation of cultural agencies or institutions).

- The possibility to manage and process large quantities and growing digital contents and objects.
- Re-use of the curated digital cultural content in other contexts.
- The enabling of real-time geographical mapping to increase user experience.
- Feedback for cultural sites' curators and managers to create/detect 'hot spots' as well as create/improve demand-oriented content.
- Compatibility with standards in order to facilitate the future management, use and re-use of cultural digital content.

This chapter presents how cloud-based technologies allow an adaptive and personalised cultural experience by seamlessly incorporating cloud-based (non-sensitive) information about the habits, preferences and motives of individuals into the digital content of a cultural object (e.g. artefacts, buildings and sites), aiming to increase users' interest in cultural heritage. In this way, users are actively invited to participate in the assignment of the importance of a cultural artefact and they become participants in the creation of their own cultural experiences through the creation and sharing of information on social media. Our assumption is that this new relationship between individuals and cultural heritage has the potential to make users adopt cultural heritage as part of their life-style and to enable lifelong cultural experiences. Our work is part of the European co-funded project TAG CLOUD, which has developed several digital solutions as outcomes and tangible results to cope with its objectives; they include the COOLTURA Platform and App, and stedr App.

The COOLTURA Platform is a cloud-based, open data-oriented platform that enables scalable services, such as harvesting of cultural content, semantic enrichment, personalisation and contextual adaptation of cultural content. In addition, the platform supports the curation processes for digital cultural content and artefacts; and offers tools to map, build and increase the metadata structure of the harvested content towards the OGD metadata scheme in order to tackle the challenge of achieving standardisation of cultural content representation to facilitate its access, use and re-use. The COOLTURA App is an application developed for mobile devices that allows visitors and users to experiment with different types of interactions with cultural objects (e.g. augmented reality, interaction with physical objects such as totems), as well as recommend new experiences based on the earlier user behaviour. Stedr¹ is a mobile application for social storytelling and for discovering, creating and sharing digital stories related to places. It provides a revisited storytelling approach that fuses traditional digital storytelling with social media as a way for the co-creation of cultural heritage.

In order to give a brief overview of how these initiatives are connected, it is worth mentioning that the COOLTURA Platform provides a set of cloud services

¹ The name of the application stems from the Norwegian word sted (plural steder) for place.

that can be connected to different clients (i.e. different types of cultural applications). This way, as a proof of concept, the COOLTURA App is the first application that accesses, uses and re-uses the cultural content processed in the COOLTURA Platform, and thus provides an individual personalised and adapted experience to the user. Later, new applications, such as *stedr*, can be connected as well to benefit of the services provided by the COOLTURA Platform.

Within the scope of the project, COOLTURA and *stedr* have been implemented, piloted and later deployed in three cultural sites located in very different environments, while managing very different forms of heritage:

- The Monumental Complex of the Alhambra and Generalife, in Granada, Spain: a monumental complex with indoor and outdoor spaces, which is situated in a medieval city on the foot of the Sierra Nevada Mountains.
- The Barber Institute of Fine Arts, in the West Midlands, United Kingdom: an indoor museum, which owns the Byzantine Coin Collection, the finest Byzantine collection worldwide housed in an Art Deco building in the heart of an international university campus and on the periphery of the land-locked cradle of Britain's industrial revolution.
- The County of South-Trøndelag (Sør-Trøndelag), in Norway: an open landscape with a rich heritage linked to seafaring, that is placed in mid-Norway and holds the third largest city in Norway, Trondheim, regional capital of Sør-Trøndelag.

2 Engaging People with Cultural Heritage Through...

2.1 ...The Adaptation of Cultural Experiences

To motivate an engagement with the general public about their cultural heritage requires their interest to participate in cultural experiences. Our approach to 'engage' users with cultural heritage and the community is in close relation, and complementary activity, with the personalisation mechanisms offered through adaptive experience. Digital solutions for the presentation of cultural offerings are traditionally based on a general view about the common background and preferences of the general population, or particular group of visitors targeted by the cultural institution. They fail to adapt to the diverse preferences of a heterogeneous public. This is the main problem that the set of digital solutions developed in TAG CLOUD are addressing, through the support for the adaptation of cultural experiences to each individual user.

TAG CLOUD exploits social media so that it can connect with, personalise and adapt the cultural experience; and also motivate the users and their peers to engage with their cultural environment. Thus, social media is used in a two-fold approach: (1) to gather information about the profile of each individual user for personalisation purposes, and, (2) to facilitate the active participation of the users and engage them to become co-creators of cultural heritage. Social media is used by and circulates among millions of people all over the world. It is used for creating

and sharing content (i.e. comments and pictures) as a new way of expression. Some content is automatically generated once the user clicks a button (such as likes in Facebook) and some is provided by users and their peers (e.g. posts, comments and tweets). The interaction on a social media is mainly done through a variety of services to acquire or generate information from/to other peers. All of the information available on social media allows gathering a collective and rich source of data about the users, and offering a personal experience.

Social media is extensively used all over the world, with millions of active users involved. Taking into account impact and the large amount of information that can be retrieved from the profile of the user and activity on social media, there is a huge potential to personalise and adapt services and produce social engagement using cloud-based technologies in combination with social media. In addition, social media can provide a large amount of information about the user, both from his/her profile and from his/her activities and social interaction. However, a key issue is the privacy of each individual's data. In TAG CLOUD a privacy policy has been created in line with the EU laws and TAG CLOUD's stance on privacy. This policy is presented to the user when starting to use the application and is followed by TAG CLOUD at each stage.

All of this information about the user coming from social media enables a dynamic update of the user profile that serves to personalise the services. We provide personalised cultural experiences according to the users' likes and interests, and recommendations evolve according to their activities. In TAG CLOUD, the mobile COOLTURA App is the main entry point for the user to a cultural discovery adapted and provided by the COOLTURA Platform. COOLTURA uses a hybrid motivation methodology, which combines gamification techniques, intrinsic motivation and reciprocity, with the objective to motivate the users to participate in social networks to create, share and disseminate their cultural heritage. In addition, in order to achieve a better personalisation of the interaction with the cultural artefacts and better adaptation of the content, the user profile is continuously updated.

Using the COOLTURA App, the user receives recommendations about cultural offerings based on his/her personal profile. A personal profile includes interests provided by the user, interests extracted from social media, previous cultural experiences, the time spent on different offerings and feedback to these previous experiences (e.g. what the user liked). The recommendation system exploits content-based filtering, i.e. filtering according to categories, and collaborative filtering, i.e. filtering according to similarities with other users. In addition to interests, the system can also exploit user location in order to select among offerings in the vicinity of the user. Recommendations can be applied at different levels:

- At the cultural site level. The user is provided with an overview of relevant cultural sites.
- At the point of interest level. The user is provided with an overview of relevant places or objects in a cultural site.

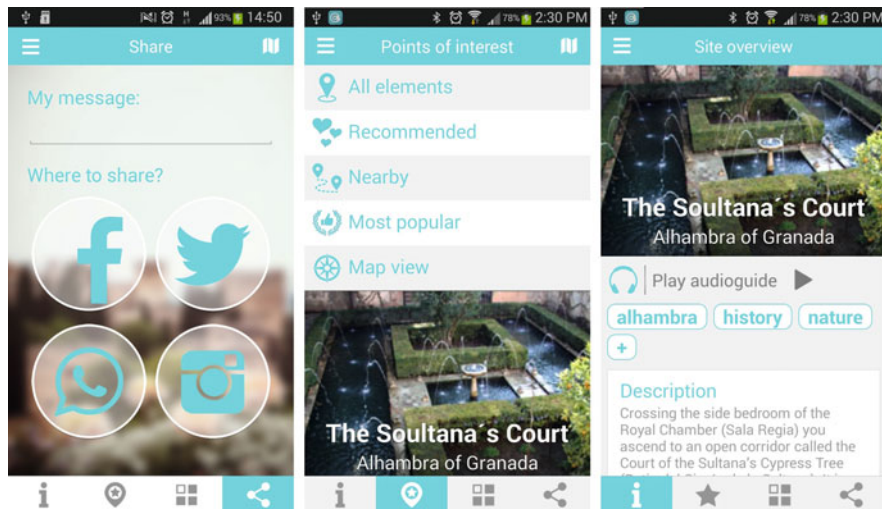


Fig. 1 COOLTURA screenshots. On the *left*, the screen to share in social media, in the *middle*, the different options to sort the points of interest, on the *right*, the description of a point of interest

- At the narrative level. The user is provided with different stories related to a point of interest.
- At the digital artefacts level. The user is provided with a list of relevant digital artefacts related to a point of interest.

Besides recommendation of cultural content, the COOLTURA App also supports different digital interaction modes (called activities in the App), such as augmented reality, storytelling and games. Currently, the user can receive recommendations regarding specific interaction modes, but is free to select among a set of digital interactions or switch between interactions. The COOLTURA App could be extended with application modules that support new digital interaction modes in the future. For instance, a new game could be added (Fig. 1).

Providing an adaptive cultural experience is a way to engage users. The personalised cultural experience through the COOLTURA App is not just a set of cultural offerings ‘pushed’ from the cultural institutions, but instead, is the result of a co-creation process where both cultural heritage institutions and visitors have shared their needs, requirements and insights. To reach adaptive cultural experiences, the cultural institutions or sites provide an architectural baseline (i.e. contents and interaction modes), and the users can dynamically generate their own experiences, by either (1) directly selecting the interaction modes or switching between interactions (i.e. activities), or (2) indirectly by receiving cultural recommendations from the COOLTURA Platform based on their user profile. In TAG CLOUD, the user profile is dynamically updated along with the user’s experiences, evolving interests and preferences. By giving feedback or by

experiencing an offer, the user influences recommendations. Therefore, personalisation provides a dynamic experience that continuously transforms. In addition, social media leveraged in COOLTURA App allows users to share their comments and personal experiences, assuming more active roles for participation like 'critics' and 'creators' (Simon 2010).

2.2 ... Social Storytelling

Stories drive people to feel. They broaden our knowledge. They make us reflect and change behaviour. Stories have long been used in cultural heritage institutions. There is no more special an experience than visiting a cultural site in the company of a guide who tells fascinating stories about the exhibits. When human guides are scarce resources, digital technology offers the chance to bring these experiences to a wider audience. An initial study done by TAG CLOUD shows that, indeed, people favour traditional cultural discovery approaches, such as storytelling and itineraries (Floch and Jiang, HCITCOH 2015). Therefore it was important to support storytelling in the COOLTURA Platform.

Similar to existing digital technology approaches, the COOLTURA Platform is combined with visual and spoken communication, and exploits different types of media such as audio, pictures or videos. Beyond presenting stories authored by cultural institutions, we provide the users with tools to contribute to storytelling. A participatory approach is an opportunity to enrich the portfolio of cultural stories provided by professionals and allow the visitor to connect with culture. There are often diverse ways to look at cultural artefacts, this means that there are also diverse ways to talk about them, and thus there is a potential to retain the attention of people with different interests. Further several treasures in our cultural heritage do not exist under the responsibility of specific cultural institutions, or in some cases few resources are available to document and present them, which makes it difficult to document history related to those artefacts. However, we still know that there are many cultural enthusiasts that are eager at documenting cultural heritage around them, e.g., members of local history associations.

There are many ways to tell a story. Advanced narratives that combine text, audio, pictures and video can be used. A simple picture can also be a form of storytelling (Sarvas and Frochlich 2011). In addition, less commonly used than pictures, audio tracks carrying simple sounds are also relevant. Work in TAG CLOUD supports these different forms of stories. The creation of advanced narratives typically requires more effort than those of pictures and audio tracks. It is necessary to study sources, collect materials, e.g. pictures, and edit media, e.g. text, audio or video. Pictures and sound tracks provide a lightweight approach to storytelling. They can be used to record an event that a person is witness of, or to highlight a detail the user is fond of.

For the user, the application module *stedr* is the main entry point to a cultural discovery through storytelling in TAG CLOUD. Several group interviews were organised, both with potential users and experts in various fields of cultural heritage

in order to discuss relevant features of the storytelling module (Floch and Jiang 2015), and their feedback influenced and guided the selection and design of stedr features. Here is a brief list of feedback received and the decisions taken to develop stedr:

- Institutions have the formal responsibility for cultural places. We therefore exploit the story baseline developed by cultural institutions.
- Technology changes more rapidly than the content. The production of content is costly. Approach followed in TAG CLOUD separates between content and interaction, and there is no need to develop new stories adapted to the special needs of stedr.
- The public, in particular young people, who are under-represented among users of traditional culture, are eager users of social media. For this reason, social media is used as a support for storytelling.
- Quality and trustworthiness are essential concerns. We provide recommendations for the creation of stories, such as highlighting the importance of intellectual property rights and references.

The implementation of stedr makes use of existing platforms for storing and creating content, including some social media platforms (Floch and Jiang, Digital Heritage 2015). For instance: the digital storytelling platform for cultural stories, called Digitalt fortalt, is used for the creation and sharing of advanced narratives using different media; the social mobile picture sharing service Instagram is used for the creation and sharing of stories expressed in the form of pictures; and the social audio sharing service SoundCloud is used for the creation and sharing of stories expressed in the form of sound tracks. As far as the participatory approach is concerned, stedr supports different user roles: ‘spectators’ discover cultural artefacts and stories; ‘critics’ submit reviews to stories; ‘creators’ produce content, either new digital representations of cultural artefacts or stories; and ‘collectors’ create collections and/or organize the content into collections.

Figure 2 presents some screenshots for the application module stedr illustrating its main features. The ‘map’ view is the main entry point for discovery. The user can easily retrieve cultural artefact in his/her surroundings. It is however not mandatory to be close to a place to access to information. The user can browse and search on the map as usual when using Google map services. The ‘story’ view provides access to different kinds of stories for a cultural artefact. The ‘collection’ view provides access to related artefacts organised in collections. User guidelines including more screenshots can be found on the stedr blog site (stedr 2015).

Opening the public to participate in the creation of cultural stories does not mean excluding cultural institutions. Cultural institutions still play an important role. They should encourage the visitor to leave the role of observer and contribute actively, and they should educate them to produce contributions of quality. It is important to create a good baseline upon which the public can work. For instance, the institution can launch cultural themes and invite the public to contribute. Additionally, in order to lower the threshold of participation, cultural institutions

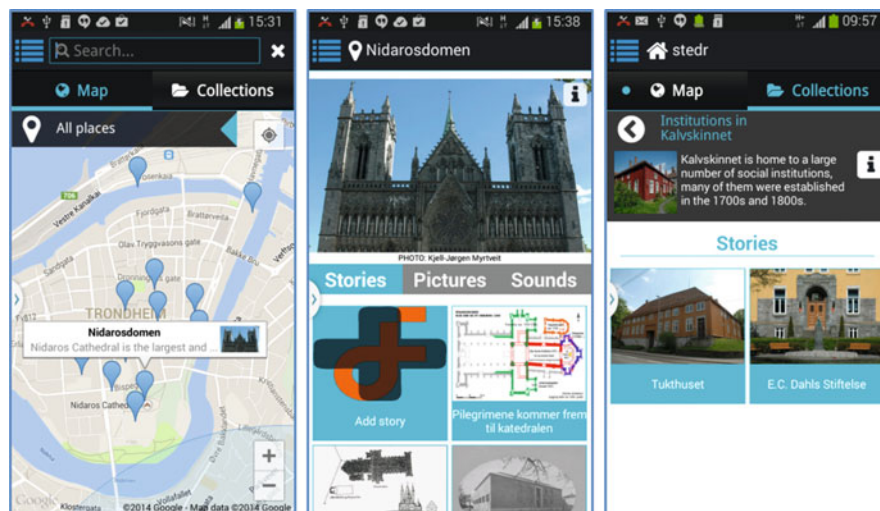


Fig. 2 Stedr screenshots. On the *left*, the map view, in the *middle*, the story view, on the *right*, the collection view

should make use of platforms that users are familiar with. For example, stedr exploits existing popular social media platforms like Instagram, Twitter and Flickr to ease the creation and sharing of stories (pictures), comments and collections. Using these platforms, cultural institutions can easily define hashtags when launching cultural themes. As far as quality is concerned, cultural institutions should provide guidelines to the public. This can be included as part of the digital solution done in stedr, or when more resources are available, organising workshops for the contributors.

There is great potential to utilise local citizens. Many are already actively talking about the local cultural heritage, for instance members of cultural associations. They enrich the cultural knowledge with new viewpoints, and they document parts of our culture that are yet undocumented. Many have already authored articles and books. The information is often spread verbally, not always available in a digital form, and thus difficult to retrieve. To ensure good dissemination, it is important that content is open and available through common digital infrastructures. Cultural institutions should show the way by making the content they create available through open platforms. The digital storytelling platform, Digitalt fortalt, that we exploit in stedr is such a storytelling platform managed by the Arts Council Norway. It is both open for cultural institutions and the public, thus functioning as a bridge between mediated and unmediated heritage. At the time of writing, 2400 out of more than 4000 stories currently available on Digitalt fortalt were registered by cultural institutions, indicating a fairly good portion of unmediated content.

As mentioned earlier, the quality of unmediated content requires attention. The evaluation of stedr shows that some users favour mediated content beyond unmediated content due to quality and trust concerns (Floch and Jiang 2015). At the same

time, some other users argue that they would rather read stories written by amateurs, in particular those produced by peers or favoured by peers. It is therefore important to clearly differentiate the presentation of the mediated content from that of the unmediated content.

By using these interfaces to support the public or visitors' contributions, the stories unknown or forgotten by the cultural institutions can be well preserved and passed from generation to generation, forming a living heritage. This also contributes to social cohesion, as not just professionals from cultural institutions but also the peers can participate in storytelling. Moreover, the use of social platforms and storytelling help to enrich the cultural heritage institutions' collections, involving their audiences (including locals and visitors), and improving their audiences' communication and connection.

3 Making the Connection Among Cultural Heritage, Places and People

As outlined above, TAG CLOUD has explored and evaluated behavioural and social patterns in order to facilitate cultural lifelong engagement and the connection between visitors and places of cultural heritage. Overall, TAG CLOUD has worked on developing cloud-based technologies that enable cultural institutions to go beyond its spatial dimension and the one-size-fits-all approach to experience culture, moving towards the one-size-fits-one (adaptation and personalization) approach. TAG CLOUD has based its developments over the pillars of social and cultural proximity and reciprocity, and thus provides a new perspective of connecting and attracting visitors.

Overall, TAG CLOUD has been driven by the notion of cultural engagement; which is largely rooted in the recognition that lifestyles, behaviours, heritage, people and deeper knowledge of culture are all shaped by social and physical environments (people and places), and underpinned by a temporal connection. Under this rationale, the TAG CLOUD project has carefully designed COOLTURA as a suite of services that allows a bidirectional and enriched relationship between people and cultural places, a better understanding of the cultural institutions and a personalized cultural experience.

Through COOLTURA, TAG CLOUD has expanded in two conceptual directions to support cultural engagement: re-escalation of the content of the cultural places and building on social connections and storytelling.

The re-escalation of the content is based in the production and consumption of the knowledge or content that is exchanged during the cultural visits. In this regard, by broadening and strengthening the cultural portfolio cultural institutions are able to create and provide a more diverse and distinctive content that is built over a wider base of knowledge, in order to better connect with the preferences of the visitor; thus more choices and alternative routes for finding out about and experiencing culture are provided. Moreover, geolocation technology allows recommendations of points of interest nearby that connect with the visitors' preferences and likes, and

could even allow the recommendation of other cultural institutions in the visitors' immediate vicinity.

Following this flow, TAG CLOUD has developed a framework that foregrounds the benefits of adaptability and personalisation. Therefore, the COOLTURA Platform has been created as the main entry point for curators, managers and experts from cultural institutions to better communicate with people. The COOLTURA Platform allows the curation increasing quantity of digital cultural content (re-scaling the quantity and the quality of the content and its metadata) from different sources (institutions private sources and Open Source), grants the adaptation cultural resources to different perspectives and for different targeted visitors, enlists and manage the integration of Apps using emerging technologies (augmented reality, storytelling, etc.) as well as selects the devices (mobiles, tablets, smart watches, glasses, etc.) they would like to communicate through. In addition, the platform provides analytic capabilities that brings analysed information and feedback regarding the usage of the digital content and apps to cultural institutions' curators and managers, and a dashboard that allows them to know which content is consumed, by whom and through which App and device, and so creating/detecting "hot spots" for visitors, as well as creating/improving more demand oriented content and/or new apps. In addition, the analytic platform allows an evaluation and analysis of the likes, needs, preferences and trends of the users, and untapped visitors' participation by allowing an adaptive cultural experience.

The TAG CLOUD project also has explored how new insights and content can be created or used from published open data, derived from existing Europeana datasets and their combinations. This approach not only supports new versions of content but also permits third-party software developers to create new apps that enrich the TAG CLOUD platform. However, having standardised data in order to really exploit the data sets from both cultural institutions and open data sources is a very important challenge to overcome. For this purpose, the TAG CLOUD consortium decided to embed in the COOLTURA Platform harvesting tools to processes curated digital content coming from Europeana and cultural institutions. The tool maps, builds and increases the metadata structure towards the OGD (Open Government Data) metadata scheme (Open Knowledge Foundation 2015), which constitutes the base for eGovData. This tool allows COOLTURA to enable cultural institutions and third parties (software vendors, developers, intermediaries, etc.) and benefit from a content eco-system, as well as use and re-use the curated digital cultural content in contexts such as cultural engagement, tourism, creative industry or emerging ones like smart cities.

By adapting insightful content and information, TAG CLOUD empowers the building of a cultural, recreational, historical and personal perspective of the visited place. By allowing social connections and storytelling, TAG CLOUD is also able to put 'people' in the centre of cultural experiences. We have seen in the above sections that through the COOLTURA App and stedr, TAG CLOUD provides points of entrances for visitors; to co-create and digest digital cultural content in an easier, personalised, participatory and joyful way. Moreover, the TAG CLOUD consortium expects that the user-generated content (through social platforms and

storytelling—stedr) will allow that the voice of locals and visitors to become a widely used and trusted source of information, influence the branding of the cultural institutions and making visitors active participants of the cultural experience.

Considering the road ahead and challenges in the cultural sector, COOLTURA App and Platform provide the tools and services to engage in cultural experiences; COOLTURA is underpinned by easy, fun and personalised access to the digital heritage trusted knowledge eco-system (and to the stories to be told) from the collections, monuments or areas (cities, neighbourhoods, etc.) that mark the time and place of the what, where and how we have lived our lives (culture), what has happened in the different parts of the Earth, or what, where and how other species have lived.

4 The Value of Connecting People and Places

From an empirical and qualitative evaluation performed during the late stage of TAG CLOUD project for exploitation (TAG CLOUD 2015), cultural institutions reported that the way COOLTURA App and Platform can create value is by linking the actions that result from its usage with the policies, visions and missions of the site; and thus connect with the mind and emotion of the user.

As in the case of the Alhambra, many small and large cultural institutions, organisations, monuments and cities reported that they were willing and ready to adopt emerging technologies related with personalisation and customised services, and new ways to deliver digital cultural content and resources. However, coupled with this process, the cultural institutions see the need to adopt organisational processes that link to their policies and core mission, in order to really get full alignment of curatorial, marketing and educational cultural resources and capture the attention of today's visitors.

In this regard we can see a large cultural monument such as it is the Monumental Complex of Alhambra and Generalife (Granada, Spain). The Alhambra, as a case for exploiting the aims of the TAG CLOUD project and linking COOLTURA with their policies of being a safe, clean, well maintained, serviced and restored distinctive cultural place where people not only visit as a 'cultural must' but also enjoy visiting. The Alhambra and Generalife Monumental Complex, is not only about the historical palatial cities and the Generalife, it comprises and promotes other cultural interventions such as events (e.g. concerts and exhibits from local artists), an archive, a library, nearby hostelry and food, as well as a green and sustainable areas with gardens and a developed green environment, where experts, lecturers or students give special botanical tours. Moreover, other cultural places in Granada and local green public spaces play an important part in the development and motivation to create the Alhambra and its surroundings as a pleasant environment for and by locals, businesses and visitors.

For the Alhambra, the aim of these cultural interventions, what we call cultural 'placemaking', is that people and visitors can look at the Alhambra as a cultural entity embodied in the culture of Andalusia, and not simply as set of individual

cultural buildings. The use of all these as cultural interventions lets people look at the Monumental Complex of the Alhambra in a different way; one that aims at improving the connection with the diversity and quality of the cultural values of visitors, locals and businesses. On this subject, through the curation of easy digestible and personalise content, as well as initiatives such as storytelling, COOLTURA allows new cultural values to be given to the Alhambra through new narratives that make people look at the Alhambra from different perspectives. So the 'place' and its culture, can gain in value and appreciation when COOLTURA's new layout is provided to people and visitors: a place where they can write and consume stories, good recommendations and cultural content. This new layer aims at enhancing the appreciation of places and its culture by making places closer to people, people closer to places, as well as changing the way they feel about places and places connect with people. It is about creating and managing the digital cultural content to support a lively cultural place and prove enthusiasm about it that reaches multiple identities with families, visitors and communities that enjoy and share different cultures.

Contrary to large monuments such as the Monumental Complex of Alhambra, cultural institutions (e.g. museums and monuments) in small towns and villages receive often less attention than more well-known cultural institutions in large cities. Often, few resources are available to create digital content about these institutions, and to develop and maintain a digital infrastructure for storing and disseminating that content. TAG CLOUD can address these challenges. The common digital COOLTURA Platform supports the recommendation of cultural institutions. Less known sites will be recommended if they match the preferences of the users. The COOLTURA Platform harvests information from common cultural digital infrastructures, e.g. Europeana, and can be extended for harvesting information from other common or proprietary infrastructures. For instance, COOLTURA Platform harvests content from the Norwegian storytelling platform Digitalt fortalt that any cultural institution in Norway can use to create and share cultural stories. Furthermore, it supports a participatory approach and lets the public contribute with contents, both comments about sites and cultural stories. In particular, less known places can be promoted using the social media plugins of COOLTURA and the TAG CLOUD storytelling component *stedr*. No cultural site or institution is too small for TAG CLOUD. An example is the case of the small island Rødøya in northern Norway. Rødøya is a little gem on the coast of Helgeland close to the polar circle. The small island with 200 inhabitants receives 25,000 visitors every year, mainly in the summer time. The island has been a major church centre and trading place for several hundred years. The project "Opp i dagen" (i.e. "bringing to light") has gathered experts from different culture and nature disciplines (e.g. history, archaeology and geology) in order to document the island's cultural heritage. The result is a book and a set of information signs. They exploit *stedr* in order to support digital interaction with their visitors. As the content was already available in a digital form, little effort was needed to make digital stories about Rødøya available through *stedr*. The new cultural offer was launched in Rødøya at the end of May, 2015 (Floch, TAG CLOUD 2015) (Ranablad 2015).

By embracing these challenges, the TAG CLOUD project is deploying COOLTURA to support an invigorating transformation of cultural places (large and small), making places and cultural information accessible, adaptable and personalized to people through emerging cloud-based technologies; and thus bridging a bidirectional connection between people and places, at the heart of an pro-active public realm. Moreover, through COOLTURA, the TAG CLOUD project has tackled the idea that places are “frozen in time” by re-scaling the exchange of content and knowledge in an adaptive manner, while building and enriching places with social, cultural and personal perspectives.

Acknowledgment The work presented in this manuscript has been partially funded by the EC FP7 project TAG CLOUD (Technologies lead to Adaptability & lifelong enGagement with culture throughout the CLOUD); <http://www.tagcloudproject.eu>, Grant Agreement No. 600924.

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The Place of Urban Cultural Heritage Festivals: The Case of London's Notting Hill Carnival

Ernest Taylor and Moya Kneafsey

Abstract

Urban cultural heritage festivals have a long tradition of contributing to the cultural and economic development of towns and cities around the world. Moreover, the increasing role of culture in city making has rendered them spaces of consumption, entertainment, pleasure, and festivity. Large European events such as London's Notting Hill Carnival, Berlin's Carnival of Cultures, and the Rotterdam Summer Carnival attract huge global audiences. Despite being mass gatherings where representations can be extreme, virtual, and somewhat fleeting, the intensity and intimacy of social interactions generated at festivals can induce a sense of belonging. Festivals are thus sites where community values, identity and cultural continuity are performed. In this sense, they are connected to cultures and to places, can help bind people to their communities, foster and reinforce group identity, and are central to the transmission of tradition. The ephemerality of festivals, as well as the inconvenience, expense, and gentrification-effects to which such large scale events can contribute, has led to questions about their ability to sustain community cohesion and socio-economic wellbeing. Drawing on the example of London's Notting Hill Carnival, this chapter explores the extent to which urban cultural heritage festivals can be regarded as catalysts in the promotion of community cohesion. Findings from this exploratory study suggest that the event promotes a sense of belonging and cohesion in an urban space, particularly amongst younger age groups in the community, as well as festivalgoers more generally.

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1 Introduction

Urban cultural heritage festivals have a long tradition of contributing to the cultural and economic development of towns and cities around the world. Large European events such as London's Notting Hill Carnival, Berlin's Carnival of Cultures, and the Rotterdam Summer Carnival have gained international recognition, attracting huge global audiences, income, and reputation. Urban cultural heritage festivals have become a major influence on city making and the globalising of economies, as "spaces of consumption", entertainment, pleasure, and festivity (Eizenberg and Cohen 2014). Despite being mass gatherings where representations can be extreme, virtual, and somewhat fleeting, the intensity and intimacy of social interactions generated at events can induce a sense of belonging. Getz (2010: 2), for example, argues that festivals are spaces where "community values, ideologies, identity and continuity" are performed. Moreover, festivals are connected to cultures and to places, can help bind people to their communities, foster and reinforce group identity, and are central to the transmission of tradition (Getz 2010). However, the ephemerality of festivals, as well as the inconvenience, expense, and gentrification-effect to which such large scale events can contribute, has led to questions about their ability to sustain community cohesion and socio-economic wellbeing. Moreover, as such events grow in size and complexity, the necessary attention to crowd safety, logistics, and health can shift the feeling away from a sense of joyful 'spontaneity' towards a sense of 'serious fun,' carefully planned and controlled by festival managers, who arrange programmes for audiences, invite performers, organise security and otherwise "act as gatekeepers" (Jeong and Santos 2004: 641).

Drawing on the example of London's Notting Hill Carnival, this chapter explores the extent to which urban cultural heritage festivals can be regarded as catalysts in the promotion of community cohesion. Despite organizational, financial, and social challenges, the Notting Hill Carnival is now in its 50th year and has grown to become Europe's largest street festival, a symbol of London's cultural heritage and diversity and a major revenue earner. Findings from this exploratory study suggest that the event promotes a sense of belonging and cohesion in an urban space, particularly amongst younger age groups in the community as well as amongst the festivalgoers. This results from the carnival's origin as a community-led celebration of togetherness and its year-round contribution to community leadership and management, events, educational activities, and economic spin offs. The chapter is based primarily on a review of secondary data, supplemented with participant observation, and interviews with key individuals involved in the festival at managerial level. These were identified using purposive sampling (Bryman 2008). In addition, a limited number of participants at the festival were interviewed using opportunity sampling (Patton 2002).

2 Community Cohesion

The word cohesion is often prefixed by terms such as community, social, and territorial. It refers to a sense of togetherness and connectedness between groups or individuals, usually in a defined geographical area, such as region, city or neighbourhood (Turok and Bailey 2004; Hamez 2005). The appeal of cohesion lies in its perceived capability of wholesomeness and it has been regarded as a solution to problems of increasing fragmentation, conflict, and inequality between different social and ethnic groups (Turok and Bailey 2004). Coherent policies and measures, it is argued, can build strong relationships among diverse individuals and groups, improve health and wellbeing and contribute to the cultural and socio-economic development of specific geographical locations (Novy et al. 2012). At a European territorial level, cohesion is seen as integral to the promotion of economic, social and cultural integration (Suto et al. 2010). An estimated 346 billion Euros—35 % of the EU budget between 2007 and 2013—was invested in cohesion initiatives such as job creation, infrastructure improvements, equal opportunities, wellbeing, and social inclusion (European Union 2013). Even though policies and measures aimed at achieving cohesion are wide-ranging and complex, at their heart, they seek to recognise and celebrate diversity and yet also create a sense of belonging to a social context, which provides meaning and identity to members.

Turok and Bailey (2004) identified five dimensions of cohesion—equality and inclusion, social connectedness, common social values, social order, and place attachment. They argue that cohesion promotes equality of status and opportunity to ensure people's circumstances do not become barriers and prevent them from realising their full potential (Turok and Bailey 2004). Inclusion encompasses social solidarity and public policies to minimise inequality of employment opportunities or access to other resources, which are critical to mitigate against social exclusion. Turok and Bailey (2004: 176) argue that inequality is a root cause of “poorer social relationships, more violence, less involvement in community life, worse health and a lower quality of life for society overall”. Social connectedness is linked to strong social relationships and networks, sense of belonging and identity, and cooperation and trust among individuals and wider society. Common social values pertain to cohesive practices, which encourage shared “moral principles” and “sets of rules and codes of behavior” (Turok and Bailey 2004: 182). Moreover, the idea of cohesion suggests social order and tolerance between groups and communities. Place attachment or territorial identity is also an important feature of cohesion in that it represents a basic human need—a sense of belonging. Turok and Bailey (2004: 176) believe experiences of place resonate with ideas of cohesion in terms of shaping people's culture and identity.

Despite being quintessentially ephemeral, urban cultural heritage festivals present a microcosm of these varying themes of cohesion. As noted by Ferdinand and Williams (2012) festivals are intrinsic to all societies—celebrating and promoting cultural heritage and identity, regenerating communities, creating jobs and economic opportunities, and attracting audiences. Del Barrio et al. (2012): 243) point to a “festivalisation” of cities, where events generate intense spending, fashion new urban images, spark cultural creativity and social cohesion, provide new urban facilities, and generate political interest in enhancing locals’ sense of belonging. Critically, Eizenberg and Cohen (2014: 54) believe festivals have positioned culture as a fundamental dimension in urban strategies. In this context, Attanasi et al. (2013: 228) argue that scores of local organisations are now becoming conscious that the “mutual valorization” of the intangible and tangible resources of a place can unlock the key dynamics of regional development. The fact that there are hundreds of thousands of urban cultural heritage festivals staged across Europe, means there is recognition of the contribution they make economically, socially, environmentally, culturally, and cohesively.

Urban cultural heritage festivals are a fusion of historical and contemporary cultural heritage, “which are brought together and displayed, as part of the process of re-interpreting cultural legacy” (Del Barrio et al. 2012: 236). Events provide a space in which people can “(re)present their past, celebrate their existence and reinterpret stories and myths about their culture” (Quan-Haase and Martin 2013: 524). An example of this is to “play mas”, which is a main feature of the Notting Hill Carnival, which has its roots in African Caribbean migration to Britain after the Second World War (Ferris 2010: 520). The word ‘mas’ is a derivative of masquerade, which in European tradition implies wearing a facemask. However, the Caribbean genre emphasizes how the person playing mas animates the character they are portraying by drawing on their own internal cultural connectedness (Ferris 2010: 520). In this context, urban cultural heritage festivals synthesize an emotional interplay between performers, the inner self and the revelers, who line the streets.

Moreover, urban cultural heritage festivals offer people the opportunity to try new practices or give those who live locally a break from the everydayness of urban life. Events are also representative of cultural heritage, as a key strategy in urban development and are often named after the location where they are held (Eizenberg and Cohen 2014). Over a period of time, locals and the area can become intertwined with an event. As a product that is shaped, primarily, by experiences (Ferdinand and Williams 2012), festivals are characterised by festivalgoers and what they feel or believe they are connected to. Attracted by the perception, experience, attachment to place and sense of belonging generated by festivals, people may even relocate to an area in which an event is held, in some cases triggering local gentrification (Martin 2005), as is the case with the West London district of Notting Hill. However, festivals are multidimensional entities and can be billed around cultural heritage themes such as music, food, dress, sport, art, craft, drama, gender, spirituality, etc. While some urban events can be confined to parks or an area of open

space, others occupy vast expanse of suburbs with throngs of people celebrating in the streets, dancing, eating, and drinking. In this regard, urban cultural heritage festivals can become culturally connected to the way of life, practices, and behaviors of locals.

For some revellers, urban cultural heritage festivals are a pilgrimage to where they can satisfy their desire for a congenial space to mingle carefree with a trust that belies the instantaneity of their acquaintances and the occasion. Urban cultural heritage festivals thus assume the role of a “virtual community” (Attanasi et al. 2013: 243) where festivalgoers act and behave as if they know each other, are engaged in relationships, or have shared a connection over a period of time. In highlighting the ritualistic nature of festivals, Quan-Haase and Martin (2013: 525) argue that the intrigue of events may be rooted in their role of signifying the reversal of normal power structures, a “suspension of reality and a unification of society”. At some events, there is heavy use of alcohol and recreational drugs, as well as sensual dancing and general frivolity. A temporary suspension of usual behavioural inhibitions is a feature and a main attraction of many festivals (Matheson et al. 2014).

Urban cultural heritage festivals can create favourable attitudes or raise awareness about certain topics or activities (Organ et al. 2014). These can, in turn, induce behavioural change in festivalgoers depending on their level of engagement and the emotions evoked. Sampling different types of edibles at a food festival, for example, may stimulate tastes or choice for certain foodstuffs in the future. Similarly, a music festival could help foster a liking for a musical genre not previously encountered. If these tastes, choices, or encounters, experienced at festivals are triggered during routine activities away from events, they may become habitual practices. Furthermore, the consumption of festivals intertwines with emotion and hedonism, which mean the more pleasure derived from events, the more satisfied festivalgoers are and are likely to make a return visit or attend similar activities (Grappi and Montanari 2010). Correspondingly, factors at festivals that influence togetherness and unity could engender cohesion in the same way. Moreover, this is not just restricted to being physically present at events, as the prevalence of digital media has ensured that occurrences unfolding at festivals extend beyond the local. It means festivals now have wider and diverse cultural connections, influence, and participation.

3 The Origins and Development of the Notting Hill Carnival

I could see the streets thronged with people in brightly coloured costumes, they were dancing and following bands and they were happy. Some faces I recognized, but most were crowds, men, women, children, black, white, brown, but all laughing (Laslett 1989, cited by Blagrove 2014).

The roots of London's Notting Hill Carnival are etched in African Caribbean culture. Britain was experiencing serious labour shortages following the Second World War and began recruiting workers from former territories such as those in the Caribbean. Faced with hardships, social exclusion, and missing 'home', the new arrivals felt the need to band together to organise their own social events and activities (Muir 2011). In this way, they could meet and interact with each other freely thus creating a home away from home and social solidarity fostering a sense of cohesion, common identity, and satisfying a sense of belonging. The urgency of meeting this need for psychological and emotional wellbeing became even more pronounced after the race riots, which erupted in Notting Hill in 1958 (Muir 2011). The following year, Claudia Jones, a Trinidadian communist, activist and publisher, who had been barred from the United States of America, organised a carnival style event in St Pancras Town Hall, London, both as a statement to the British public and a 'comfort' to the dispirited migrants (Muir 2011). The actual forerunner to today's carnival was organised by Rhaune Laslett, who was born in London's East End to a Native American mother and a Russian father. In 1964, Laslett, a social worker, had a vision of people in Notting Hill coming together and celebrating in the streets. She felt that even though there were various migrants living in the congested area, there was little communication or interaction between them. Her dream of a unifying concept was realised with marchers and steel bands taking to the streets under the banner of the Notting Hill Fayre and Pageant in joyous revelry. The essence of jollification and togetherness of Laslett's event has remained an essential facet of today's carnival, which is now seen as the "largest expression of multiculturalism in the UK and has done much to bring communities together" (Greater London Authority (GLA) 2004). The event annually features an estimated 10,000 participants from Britain and other parts of the world. They take part in musical forms, costume parades, arts and crafts, provide food and drink, and stage various activities and entertainment aimed at children and adults. The Federation of European Carnival Cities (FECC), a pan-European body set up to promote and preserve carnivals, lists Notting Hill as the biggest event of its type on the continent.

The Notting Hill Carnival is rooted in ideas of identity, sense of belonging, cultural connectedness, and promoting community cohesion. The event serves as a social space and forum where intangible and tangible cultural heritage is sustained, created, shared, and enjoyed by local residents as well as visitors from Europe and other parts of the world. The carnival has become synonymous with the area of the Royal Borough of Kensington and Chelsea and is now firmly arranged in the cultural mosaic of London and Europe. It annually attracts an estimated one million people. Globally, only Brazil's Rio Carnival, in terms of urban street festivals of this type, surpasses the number of people who attend Notting Hill. Five of the eight per cent of international visitors to the carnival are from Europe (GLA 2004). The Rotterdam Caribbean Summer Carnival, which started in 1980 and Berlin Carnival of Cultures have been inspired by Notting Hill.

It is difficult to ascertain the latest economic impact of the Notting Hill Carnival, as the first and most recent study was conducted in 2002. That report, commissioned by the former London Development Agency, showed the carnival contributed in

excess of £93 million to the city and supported the equivalent of 3000 full time jobs (GLA 2004). An estimated £36 million was spent on food, drink and other merchandise at the carnival's 250 licensed trading sites and a further £9 million on accommodation (GLA 2004). Other economic beneficiaries include music producers, clothing designers, merchandisers, and security firms. More than 90,000 foreign tourists, mainly from Europe, annually attend the event. However, the majority of visitors, who are mostly aged 16–34, are from London and other parts of the UK. Such numbers of people offer huge scope for commercial sponsorship, celebratory art form, job creation, skills training, marketing, and merchandising (GLA 2004). With 40 % of global tourism revenues emanating from intangible and tangible forms of cultural assets (United Nations 2012), Notting Hill Carnival has the potential to tap into the lucrative cultural tourism market across Europe and further afield. Furthermore, iconic London with its distinctive characteristics, lifestyles, heritage, cultural activities, and landscape, adds to the inherent appeal of the carnival.

4 Promoting Community Cohesion

The Notting Hill Carnival began with the objective of building and creating community cohesion. Historically, the event has been a catalyst for mobilisation against racism, poor housing conditions, extortionate rent, and overcrowding, experienced by local working class people in the Notting Hill area. It gives voice to minorities and the marginalised: “Carnival allows people to dramatise their grievances against the authorities on the street, when parliament or other spaces of influences are closed off to them” (Dabydeen 2010). As Tompsett (2005: 46) argues, “claiming public space, is at the heart of Notting Hill Carnival. In this sense, the road is seen as a commemorative space with possession of the street etched in the memory and the psyche, the right of free people to occupy the public thoroughfare.” Moreover, “it connects past to present” (Tompsett 2005: 46).

The contemporary vision of the Carnival, which is now run by the London Notting Hill Carnival Trust is to “foster the creative development and enhancement of diverse artistic excellence, thus transforming perceptions of London Notting Hill carnival culture locally, nationally and internationally” (Notting Hill Carnival 2015). Its mission is to use carnival arts collaboratively and artistically as a catalyst to facilitate “artistic excellence, education, engagement, empowerment, entertainment, integration, transformation of perceptions, inspiration” (Notting Hill Carnival 2015). From these statements, it can be seen that the carnival fosters a dynamic sense of cultural identity which is clearly oriented towards the perceptions of audiences and participants within the local community and beyond. Claire Holder, former chief executive of the Notting Hill Carnival Trust, who now runs the Notting Hill Carnival Roadshow, a carnival entertainment touring company, and believes events like Notting Hill Carnival are ideally placed to achieve community cohesion, because of the “pressures and diversity” of the urban contexts in which they are situated (Holder 2014). Notting Hill is rooted in the history of the African

Caribbean experience in Britain, explains Holder. Many of today's carnival participants are descendants of those, who were invited to the UK to help rebuild the 'Mother Country' after the Second World War. Some of the first arrivals had settled in the overcrowded tenements of the North Kensington district alongside the working class British, Irish, Jews, Greeks and Spaniards. Here they faced exploitation by slum landlords and racial tension spurred on by the likes of fascist Oswald Mosley. Hostilities culminated in the 1958 Notting Hill Race Riots and the murder of Antiguan carpenter, Kelso Cochrane, by racists, the following year. Activists saw the carnival as a way of bridging cultural gaps, uniting the community and easing racial tensions. Emerging from this contested backdrop, Notting Hill Carnival has come to be acknowledged as a "joyous beacon of hope and unity" (Ferris 2010: 522).

The Notting Hill Carnival resonates with sense of belonging and togetherness and has been instrumental in laying a cultural heritage foundation for people of African Caribbean origin and their descendants in Britain today. For many, the event holds special significance as a "liberated territory" where virulent racism has been resisted (Ferris 2010: 521). Over 2-days in August every year, this corner of West London becomes an embodied zone where solidarity is openly embraced. This is particularly surprising amid ethnic tensions, rising hate politics and increased migration across Europe. It means the event has transcended its local social and political boundaries making a broader contribution to community cohesion. As Holder (2014) explains:

These festivals are not organised by government and are community-led and community driven. They only happen whenever there is a collective community will and therefore, as they evolve in their urban contexts they fulfil that role of community and territorial cohesion.

The idea of collectivity, espoused here, illustrates the fact that the Notting Hill Carnival is about group action, individuals working together, relationships and cooperation. It is these practices that underpin the foundation for togetherness and solidarity of people cohering in a "collective community will", an interrelated effort (Holder 2014). Portraying such events as "community-led" and "community-driven" shows that the notion of cohesion is more than people coming together or merely a social inclusion function (Holder 2014). It is also about empowering people to make choices and having the "will" (Holder 2014) to create the type of environment in which they feel they belong and want to be a part of, irrespective of their circumstances. Holder's (2014) "collective community" is also a counter to the "increasing individualism", which has led to unease about social disintegration, conflict and crime, lack of respect for civic institutions, systematic marginalisation of certain social groups and their geographical concentration in poor areas (Turok and Bailey 2004: 144). In this sense, Holder's notion of community and territorial cohesion encompasses economic, social and environmental concerns; disparities and accessibility to services and opportunities, at both national and local levels, contemporaneously and in the future (Hamez 2005). Urban cultural heritage

festivals are, therefore, not just one-dimensional entities, but multifaceted events incorporating spatial, sustainability, and temporal attributes of cohesion.

Whilst acknowledging Notting Hill Carnival's important economic and political role, Holder stresses that it is important for the event make a positive contribution to wider society: "If it does not do this, then it is just entertainment. Festivals such as Notting Hill far transcend that entertainment value and are important vehicles for self-actualisation" (Holder 2014). A sense of belonging is thus bound up with notions of cohesion, as it provides a rationale for a meaningful existence, of being part of or identifying with something and serving a purpose, both to one's in-group and society, more broadly.

In the foreword of his Strategic Review of the Notting Hill Carnival, Ken Livingstone, the former Mayor of London, argues that the event has "succeeded in promoting a fusion of cultures, people and customs" (GLA 2004: 6). This observation was borne out on the Sunday of Notting Hill Carnival 2014 when black carnival goers were visibly in the minority. Even though the event has had a history of predominantly attracting people of African Caribbean origin, this is no longer, strictly, the case. The diversity of people now attending Notting Hill Carnival is certainly reflective of Livingstone's fusion of cultures, people and customs. The vividness of intercultural interactions, different foods, musical genres, entertainment, dress, costumes, parades, languages, rituals, behaviours, and displays all occurring in the name of the carnival, produces strong images of unity. Citing Allport's (1954) contact theory, Lee et al. (2011) argue that positive, personal, and cooperative contact between different groups can reduce or eliminate prejudices. In this regard, events such as cultural heritage festivals, not only help minority groups maintain their own culture of origin, but also augment connections with the dominant population and other groups thus breaking down biases (Lee et al. 2011). This suggests that the Notting Hill Carnival provides a space where linkages extend beyond their bounds appealing to a diverse audience. Lee et al. (2011) argue cultural heritage festivals are an effective resource for promoting social harmony and integration. According to Holder (2014),

The Notting Hill Carnival was inceptioned with the idea of bringing the 'black' community together. It was about racial integration. Remember the black community at the time had come from many different Caribbean islands and were not mixing. In time, this togetherness, the entertainment value and ethos of a celebration of freedom, appealed to others who subscribe to that spirit.

Even though Notting Hill Carnival is rooted in African Caribbean culture, it is something that "we want everyone to be a part of and enjoy", explains (Benn 2014), a trustee of Notting Hill Carnival Enterprise Trust. Providing the opportunity for people to experience other cultures, argues Benn, helps them appreciate their own, breaks isolation and broadens their worldview of what the world is all about; "The idea of the world as a melting pot of cultures all coming together is encapsulated in the Notting Hill Carnival" (Benn 2014). The idea of togetherness that Benn rationalises is bound up with notions of identity, in relation to what the event

represents and cultural connectedness, in terms of the cultural heritage that is realised at the carnival. The event thus provides an embodied space where the journey from the past coalesces with the present materialising in a connected whole.

For Benn, the Notting Hill Carnival is a medium that amplifies awareness of African Caribbean cultural heritage across Europe and beyond. The event, which he describes as “inclusive and cohesive”, is something he wants everyone to be a part of and to share with each other. While this objective corresponds with a sense of belonging, it also coincides with the carnival’s perceived broader societal endowment. As the largest cultural event in London, Benn says Notting Hill Carnival has become synonymous with the UK’s capital and is representative of the diversity that exists there. This suggests that the attachment to place inherent in the carnival embodies London as a whole and is not just about the Notting Hill enclave. This broader representation is part of the “festivalisation” of cities (Del Barrio et al. 2012: 243) with events becoming pluralised in terms of their economic, environmental, cultural, political, and social impacts on urban landscapes. Such is their influence that even though a sense of belonging is an important benefit of urban cultural heritage festivals, it is only one facet in a complex whole.

For some carnival performers or ‘masqueraders’ and costume designers, the Notting Hill Carnival is a perennial activity. Preparations usually start the day after the carnival ends with the selection of themes and costume designs for the forthcoming year. Most masqueraders are members of bands, each of which can number up to 500 or more people. More than 50 bands participated in Notting Hill Carnival 2014. The bands are diverse in terms of members, age, sex, race, code of conduct, etc. Costumes are categorised as background, frontline, individual, and king or queen designs. In bands such as London’s United Colours of Mas (UCOM), costumes are priced in the region of £200–400 (background), £400–500 (frontline) and from £600 for an individual design. Throughout the year, bands hold regular carnival themed events for members and other activities such as trips or competition at other festivals around the world. The way bands operate means they are a key feature of the actual carnival event, source of participants, cohesiveness, and sustainability.

Jenny¹ is a member of UCOM and masqueraded in an individual costume at Notting Hill Carnival 2014. Now aged 30, she has been attending carnivals from as far back as she can recall. For her, being a member of a carnival costume band and actually taking part in the event itself, adds not only to cohesiveness, but also to her emotional and psychological wellbeing. She argues that playing mas in a scantily clad costume in front of thousands of people has helped to improve her self-esteem and confidence. Carnival has also led to a greater appreciation of her cultural heritage and other people’s way of life. Jenny believes these considerations are key to the sustainability of carnival and in educating people about aspects of the cultural heritage that underpins events such as Notting Hill. She contends that attending the Trinidad and Tobago Carnival and taking part in the Berlin Carnival

¹ Not her real name.

of Cultures has enlightened her about different cultures other than her own. Such is the increasing diversity of cultural heritage festivals; Jenny believes events like Notting Hill are assuming a fluid identity where cultural heritage, community and territorial representations have become blurred.

Berlin's carnival is called Carnival of Cultures and that is very interesting, because you go there as a Caribbean band and you are one band out of 50 different cultures. You've got skateboarders, you've got people from China, you've got people from Japan, you've got Jamaican people, you've got people wearing 1920s flapper girls, so depending on eras, cultures, styles; anything you want. You can have a float and that is represented and I think that's probably where Notting Hill is going. It is not gonna be typically a Caribbean carnival. It's gonna be more of a cultural, any culture represent—bring good vibes, bring good spirit; showcase who you are, what you are about: have a good time (Jenny 2014).

The fluidity of carnival, highlighted by Jenny, is supported by bands such as Holder's Notting Hill Carnival Roadshow, a commercial spin-off, which, like UCOM, operates throughout the year, as an entertainment touring company. The roadshow runs costume workshops, seminars, steel band hire, carnival catering, schools workshops, carnival design, and carnival management services. The company also participates in various festivals such as the Seychelles Carnival and the Abuja Carnival in Nigeria. As a by-product of Notting Hill Carnival, the continuous activities of such bands, is a major contribution to the sustainability and promotion of the London event. Holder argues that such attributes not only apply to sustainability, but also to cohesion. Preparations and activities associated with Notting Hill, she contends, means participants are building the cohesion and social capital in their own communities before they attend events.

The biggest input that the carnival body make to that cohesion is to foster that sense of togetherness by bringing the disciplines and community together at least three to four times a year in joy, harmony and working towards the same goal of development of the carnival (Holder 2014).

These observations indicate different ways in which the cohesiveness generated by urban cultural heritage festivals is maintained beyond the moment of the event. The open-ended and multidimensional nature of festivals also gives rise to transnational networks or pluralised cultural heritage forms where various traditions are merged under a single banner, none preeminent among the others. It means festivals, though situated in terms of place identity, are neutral independent zones of "joy" where happiness among different people is the prevailing theme (Jaeger and Mykletun 2013: 224). This embodied space, where notions of belonging and togetherness are transformed, contested and communicated, may have as much to do with the sustainability of urban cultural heritage festivals, as any other factor.

Another impact of Notting Hill is its social enterprise contribution. One of the reasons the carnival has enduring impact within the local community is because it generates jobs and activity all year round. This is typified by Mahogany, a limited company run as a not-for-profit social enterprise and receiving funding from the Arts Council of England and Wales. The company first appeared as a costume band

at Notting Hill Carnival in 1989 and contributes to the business of carnival and preserving its cultural heritage by making costumes all year round for various events across the world. A main focus of the project is helping underprivileged young people develop their skills and build greater confidence through the art of carnival.

5 Challenges to Community Cohesion

One of the major concerns of participants in this study is the indication that the Notting Hill Carnival has become a victim of its own success. The district in which it is held is a high-density residential area and has to accommodate more than one million people, some stimulated through alcohol or other substances, causes problems in relation to anti-social behaviour, public convenience, overcrowding, litter, etc. The area has also been subjected to increased gentrification. In the mid-nineteenth century, the outer London district became home to the capital's wealthier inhabitants fleeing the inner city only to become a dilapidated enclave in the 1950s housing migrants and those experiencing extreme poverty (Martin 2005). The area, which was seen as an area of deprivation and racial tension, has today gained the reputation as one of London's most fashionable suburbs with homes belonging to the capital's high-flying business people, celebrities and politicians including the Conservative Prime Minister David Cameron and Chancellor of the Exchequer George Osborne. A popular film, which bears the name of the district, has garnished the area's international appeal. Such has been the metamorphosis of Notting Hill that there are fears the area may not only lose its carnival, but also its identity.

Remybyn,² who is in her 40s, has lived in Notting Hill and other parts of North Kensington all her life. She runs a stall outside her home selling barbecued gourmet burgers. She confessed that the venture was not purely for financial gain, but a way of being involved in carnival and providing a local meeting point for fellow residents, some of whom had contributed to the enterprise by giving her disposable tableware products, extending storage space to her, and generally lending a helping hand where needed. Remybyn insists the area is a nice place to live.

You could leave your house in the morning and say you are going to the shops and not come back for two or three hours or even longer on a sunny day. You might bump into people and you stop and chat or you might know a stallholder or people you see everyday; you might not even know their names, but you stop and talk or they talk to you. It is lovely, a really lovely area to live in particularly in the summer when it is warm, you will find everyone out in the streets either sitting on their doorsteps having a cup of tea or drinking or just milling around the market—it is just a nice place to be, a safe place to be (Remybyn 2014).

² Not her real name.

Even though Remybyn insists that the community spirit in the area exists all the time, she argues that things are changing. The popular Portobello Road Market, which she contends, is the hub of the community, like other small businesses in the area, is facing competition from the high street chains springing up in the district:

One of the charms of the area, until recently, is we have managed to resist a lot of high street chains in Portobello Road. We are made up of a lot of independent shops that are run by local people. We have market traders whose family have been there for 100 years, but now also own multi million pound houses, because their family bought them back in the fifties or sixties and those properties are now worth a fortune, and yet the family still trade on the markets. It is such a diverse community. When I first came to the area, I could not get a cab to drop me to certain parts of the area, All Saints Road, for instance, been one of them. When I lived there, for a brief period, with a friend, it was known as the 'frontline' and the cab driver would drop me two or three streets away and say, 'Am not going there luv' and leave me with a carry cot and a young baby, but now you could go down there and find Prince Harry parked in the Rum Kitchen and it is quite a well to do road—there has been a lot of change (Remybyn 2014).

Not all the recent changes in Notting Hill can be pinned on the carnival; Remybyn argues that the locating of several high street chains in the area has meant increasing commercialisation, which could lead to a loss of "community feel". She also revealed that recent newcomers to area "hate the carnival" and this has added fuel to the speculation that the authorities want to move the carnival to Hyde Park. Losing the event and the on-going gentrification would suggest a complete alteration of the social dynamics of Notting Hill. In his study in issues related to neighbourhood change, place and identity in Notting Hill, Martin (2005) noted that working class people were more concerned about localised issues such as crime, drugs, overcrowding, local authority neglect, new migrants, and gentrification than emotional attachment to place. His middle class respondents, perhaps fixated by aesthetic appeal, appeared more concerned with the loss of traditional landscapes (Martin 2005). While such findings contradict claims (Ferris 2010; Waitt 2008) that newcomers—deemed to be prosperous homeowners—are opposed to urban cultural heritage festivals such as the Notting Hill Carnival, they also reveal the contestation surrounding such events. It is clear that the increasing numbers of such festivals being staged is a testament to their inherency to all societies in terms of celebrating and promoting cultural heritage and identity, regenerating communities, creating jobs and economic opportunities and attracting distinctive audiences. However, due to their heterogeneity in terms of cultural, social, economic, and environmental contribution, urban cultural heritage festivals reside in an embodied space in which notions of belonging and cohesion are transformed, contested, and communicated.

6 Conclusion

The findings of this study suggest the increase in urban cultural heritage festivals can be linked to an appreciation of activities promoting greater diversity and a sense of belonging and cohesion in urban spaces. The study suggests that urban cultural

heritage festivals such as London's Notting Hill Carnival can be effective tools in building strong, coherent and balanced social relationships among diverse populations. Formed to counter tension and unease, the event has been instrumental in laying a cultural heritage foundation for people of African Caribbean origin and their descendants in Britain today. Moreover, the organisers' mantra of inclusivity and cohesiveness has engendered the carnival to the wider community in terms of participation and attendance. Findings suggest urban cultural heritage festivals such as Notting Hill Carnival thus provide an embodied space in which ideas of belonging and community and territorial cohesion are transformed, contested and communicated. This indicates that participants are attracted to the event because they can identify with its rationale in terms of their co-existence with their in-group and society more broadly.

The findings further indicate that urban cultural heritage festivals such as Notting Hill are multifaceted activities providing economic benefits, social empowerment and sustaining cultural heritage. However, the study was limited in that the broader economic benefits of the Notting Hill Carnival were not fully explored and neither were the effects of notions such as place attachment and gentrification on the hosting of such events. There is a need for more in-depth and substantial research to examine critical questions about how different sub-groups within local communities interact with large-scale cultural events, especially as large urban populations tend to have a mix of long-established residents alongside many new arrivals and transient groups. There are also further questions about how festivals are organized, how decisions are taken and how diverse groups (according to age, gender and ethnicity, for instance) can be involved. Future research could examine these areas and also investigate the cohesiveness of urban cultural heritage festivals in districts that are not as diverse as Notting Hill to gain a more holistic picture of their influence on community and territorial cohesion.

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Tools You Can Trust? Co-design in Community Heritage Work

Simon Pople and Daniel H. Mutibwa

Abstract

This chapter will examine the role of co-design methods in relation to the recent *Pararchive Project* (<http://pararchive.com>) that took place between 2013 and 2015 at the University of Leeds. It will draw on the experiences of conducting the project and broader critical frames to examine the nature of collaborative working in the field of cultural heritage and storytelling. It will outline the lessons we have learned from the process and the ways in which the relationships between citizens and cultural institutions are central to working in the heritage sector. It seeks to advocate for the necessity of collaborative methods in the creation of cultural heritage tools that are trusted and adopted by communities.

1 Introduction

The *Pararchive* project involved collaboration between a range of communities and two large institutional partners, the Science Museum Group and the BBC Archive. The project developed a platform to facilitate storytelling, research and to provide curatorial tools. It was co-designed and tested by communities in conjunction with academics, curators and technology developers. Using co-production methods in combination with innovative storytelling workshops and creative technology labs, the project demonstrates the necessity of adopting co-working approaches to the problems of cultural heritage curation, engendering democratic encounters with official culture, and developing new partnerships able to consider the challenges of the digital archive. The project resulted in the creation of the new storytelling tool *Yarn* (<http://yarncommunity.com>) and offers a series of insights into co-creation

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methods, the role of institutional voice, concepts of democratisation of institutional culture, audience, creative intervention and the nature of open digital public space.

2 Nature and Origin of the Project

The idea for *Yarn* originated as the result of frustrations encountered on a previous community-based project that had been considering the reuse and repurposing of a series of archived films owned by the BBC relating to the 1984/1985 Miners' strike (Bailey and Pople 2011). This project, *Strike Stories*, worked with community members drawn from opposing sides in the strike to examine memories and archival materials associated with the strike. In particular it considered issues of the ownership of cultural memory and the desire of participants to directly use archival materials to tell their own stories and add context to what they often felt were misrepresentative materials. The project surfaced a strong community desire to take ownership of cultural resources that represented them and to be able to use them in their own commemorations of difficult events and as a basis for developing their own collective histories. Community members wanted to embrace a clear form of affective labour and work collaboratively with archival institutions to co-curate resources and add their own knowledge and experiences.¹ *Strike Stories* offered a strong proof of concept and demonstrated the willingness of citizens to undertake cultural heritage work on their own terms. It also demonstrated the willingness of organisations like the BBC to work collaboratively to open up resources and explore new models of access and consider issues of copyright and models of community labour or User Generated Content (Pople 2013, 2015).

Nevertheless, within the scope of *Strike Stories* we were not able to fully realise these aspirations and were limited in time and resources. We were able to facilitate the making of a series of films by project members, which revealed their own interests and concerns and offered a response to the archival record. However we were only able to do this for a very limited number of people and were not able to incorporate original archival elements in their films due to copyright restrictions. Thus in designing the *Pararchive* project we were keen to draw out these frustrations and work with citizens and cultural institutions to build tools that would allow for mass participation ideally unfettered by copyright restrictions and with an equality of experience and ownership. The potential of participatory media (Jenkins 2006; Jenkins et al. 2006) to allow for greater equality and cross community operability was something we regarded as possessing democratic potential within a specifically configured open cultural space. The aspiration to create a form of genuinely open digital space, based on Habermas's concept of the public sphere, was an attractive but problematic proposition (Cornwall 2008). The digital sphere is only an open space in so far as Internet architectures, governments

¹ Details of the project and the *Strike Stories* films can be accessed here: <http://media.leeds.ac.uk/research/research-projects/strike-stories-films/>

and Internet providers allow (Roberts 2009). However we were keen to explore the concept in relation to an ‘open space’ sitting between citizens and communities on the one hand and cultural institutions on the other. Both traditionally operate in different or restricted digital spheres and through strict protocols. As Dovey has forcefully noted, ‘the dynamics of collaboration and exploitation begin to shape new kinds of public space; micro-networks of solidarity, education and intervention’ (Dovey 2014, 20).

Citizens are currently invited into institutional spaces, such as museum web spaces, to view and perform certain defined and restricted activities. They may be able to access catalogues, view selected portions of collections and are subject to the institutional interpretive voice. They are often severely limited in what they can do creatively and curatively. Acts of participation, when they are permitted, are solicited, controlled and institutionally framed. Our aspiration was to break through these traditions and protocols. To achieve this we quickly recognised that co-production methods were essential and that we needed to ensure a parity of ownership within the project (Light and Millen 2014).² Using methodologies that are being developed within the AHRC funded *Connected Communities Programme* and drawing on the experiences of a broad coalition of community research projects we designed the *Pararchive* project.³ The name reflected the concept of a parallel archive, one in which there was an equality of ownership and responsibility for interpretation.

The project, based at the School of Media and Communication at the University of Leeds, subsequently worked with a diverse range of communities to design and build a digital platform that would allow them to tell stories, present their own histories, and research and work collaboratively (Pople 2015). The project team aimed to co-design and build a range of digital resources that could enable communities to develop expertise and resilience. We wanted them to become expert in the telling of their own stories, in communicating their own histories, and sharing knowledge; resilient in developing confidence, forging new communities of interest and affinity, and sharing expertise. We also wanted them to be able to draw on a broad range of archival and cultural materials to facilitate this work. Our groups worked in partnership with academics from Leeds and York University, technology developers from *Carbon Imagineering* and curators, archivists and IT specialists from the Science Museum Group and BBC Archives to create the new digital resource, *Yarn*.

Over the course of the eighteen-month project we created a series of tools that were designed to be intuitive and flexible, aiding users to develop projects that incorporated online heritage materials and allowing them to add their own materials in the form of photographs, films, text, and sound recordings. We wanted to orchestrate existing web functions and innovate new tools that would allow people

² This guide can be downloaded from the Community Media website here: <http://www.commedia.org.uk/what-we-do/projects-partners/connected-communities-media-collection/>

³ <https://connected-communities.org>.

to work on a single site and draw together disparate and unconnected bodies of content. We also wanted to create a space in which every member could create and curate their own collections of materials, and where institutions like galleries and museums could post collections for public use and gather associative data.

Once the communities had determined what they wanted to explore we then engaged a range of institutional partners, most notably the Science Museum Group and BBC Archives, to begin to provide content and materials to form the basis of these projects and allowed these institutions to explore their own relationships with communities and consider ways in which their content could be published and enhanced through crowdsourcing and public expertise (Boon 2011; Lynch 2011).

The resulting resource *Yarn* facilitates a number of activities for users and can be summarised in the following manner:

For citizens and communities it means that they can:

1. Tell stories, research cultural and historical themes, create collections, campaign and be creative;
2. Develop links with other people and other communities that share similar interests and concerns;
3. Develop community projects and host collections of community and personal materials including films, photographs and sound files;
4. Keep control of their own intellectual property (IP) by hot linking their own content from third party sites e.g., Historypin, Flickr and Facebook;
5. Explore stories and collections created by other users;
6. Showcase knowledge and personal expertise.

For cultural organisations it means that they can:

1. Feature and promote their collections through the resource without IP transfer;
2. Have access to an open workspace that can create new links to complementary collections and crowd source public expertise;
3. Source content metadata and receive analytics about who is using your content;
4. Run curation or research projects and encourage community use of their digital collections.

For researchers it means that they can access:

1. A set of tools through which to run community projects;
2. A place to feature projects and creative project archives;
3. A means of identifying communities they might want to work with;
4. A collaborative partnership with communities and cultural heritage organisations.

3 Co-Design Approaches on the *Pararchive* Project: Relevant Theoretical Perspectives from Community-Based Participatory Research and Crowdsourcing Literature

Pararchive was conceived as a highly experimental, explorative and collaborative project from the outset. It was experimental in that it afforded anyone the opportunity to contribute ideas and offer creative input to develop, test and critically engage with the production of *Yarn*. It was explorative in the sense that it empowered stakeholders to draw on, add, mix and curate resources around shared cultural, historical and thematic interests and affinities from a wide range of sources. From a collaborative vantage point, *Pararchive* linked local communities with researchers, public cultural institutions, and technology partners concerned with developing collaborative research agendas. It actively fostered the innovation of research practices and knowledge exchange partnerships that continue to develop and expand.⁴ Out of this emerged a range of digital tools and a repository of personal and institutional resources, all of which were researched, co-designed, and evaluated by all project stakeholders that included a wide range of other users. We were guided by the principle that this was a collaborative venture at all levels and that everyone involved had equal status. For example we agreed that any subsequent IP created was equally owned, and that we would evolve post project management structures to direct future developments.⁵

In doing so, *Pararchive* made effective use of a number of ways of thinking and working that drew on a host of relevant approaches and theoretical perspectives selected from existing literature, especially in the areas of community-based participatory research (CBPR)⁶ and crowdsourcing. To begin with, CBPR—which has its origins in the field of public health especially in the Americas—is understood as a collaborative (and sometimes action-orientated) approach to conducting research

⁴New projects have developed between our original communities, including an audience in residence project between the Ceramic City Stories group and the Science Museum in London (See: <http://ceramiccitystories.postach.io/page/science-museum>) and *Island Stories* between Brandanii Archaeology and Heritage on Bute and Leeds University to explore the value of cultural heritage tourism facilitated by improved digital connectivity (see: <http://www.discoverbutearchaeology.co.uk/?p=992>).

⁵The project team are in the process of developing a CIC (Community Interest Company) <https://www.gov.uk/set-up-a-social-enterprise>.

⁶It is worth noting that CBPR has been referred to in different terms owing to specific geographical contexts. In North America, for example, it is synonymous with Community-based Participatory Action Research (CBPAR) and Participatory Action Research (PAR). Participatory Development (PD), Participatory Rural Assessment (PRA) and Inclusion Research (IR) appear to be the more commonly applied terms to describe CBPR in the global South while Participatory Community Research (PCR) is one term among many others commonly used in Australia. In the United Kingdom, CBPR is closely associated with the terms Action Research (AR), Community Engagement and Co-production Research. Janes (2015, 2) reminds us that whatever the semantic and operational differences these terms/approaches may exhibit, they all demonstrate equitable partnerships bound by a shared commitment to conduct a collaborative enquiry and/or to address a common problem. (Wallerstein and Duran 2008).

on an equal footing amongst academic researchers, community group members, local community organisations and other stakeholders such as local government authorities (Israel et al. 1998; Kindon et al. 2007; Minkler and Wallerstein 2008; Hacker 2013). As Israel et al. (2008, 48) note in their most recent work, the partnerships, ‘contribute “unique strengths and shared responsibilities” to enhance understanding of a given phenomenon and the social and cultural dynamics of [local communities] and to integrate the knowledge gained with action [geared towards achieving a common goal].’

Both drawing on a synthesis of earlier scholarship and significantly expanding it, Unertl et al. provide a useful summary of the key principles of CBPR based on their recent comprehensive research in the field of health informatics⁷:

1. Understanding the existing strengths and resources within the community. The community, which has one or more unifying aspects, brings resources to the table. These resources are valued for their unique contribution to the research process;
2. Empowering both academic and community partners through co-learning opportunities, with awareness of social inequalities. Decisions are made in an equitable manner, and activities are planned and implemented collaboratively. Opportunities are made for partners to learn about community needs, strengths, and existing social inequalities;
3. Assisting community-based organisations and community members with building technological and research capacity. The project develops [...] software infrastructures [...] and technological skills. Community members have the opportunity to learn about research processes and methodologies;
4. Building collaborative partnerships in all research phases. The community is not just included during data collection, but rather is included from problem definition through results dissemination. Resources are accorded to partnership building efforts;
5. Defining ownership of technology-related project outputs and planning for technology maintenance. Ensuring that all partners contribute to and agree with plans for technology ownership through all phases of research is important to building trust in partnerships and enabling equitable access to project outputs. Because information and technology needs evolve over time, projects also need to ensure that plans are in place for maintenance of technology products;
6. Viewing research and partnership building as a cyclical and interactive process. Collaboration between researchers and the community is not a ‘one-off’ activity. Activities related to building and maintaining academic-community partnerships and refinement of research goals occur iteratively;

⁷ Although the research from which these principles were derived was primarily grounded in the area of public health, the principles can be replicated in other contexts. This replicability informed the co-design approaches adopted on the *Pararchive* project.

7. Integrating user-centred design or participatory design into CBPR projects. User-centred design and participatory design are complementary approaches to CBPR and integrate well into the iterative, participatory framework developed in CBPR projects;
8. Integrating research results for mutual benefit. The research team builds new knowledge and incorporates the knowledge into action through iterative cycles;
9. Incorporating positive and ecological perspectives into research and technology design/deployment. [...] Technologies should be deployed within, and leverage, trusted social networks;
10. Disseminating knowledge to all partners through multimodal approaches that build technical capacity and provide opportunities for additional [...] research. Presenting knowledge through [accessible] approaches can lead to better understanding of research results and wider dissemination of results in the community (Unertl et al. 2015, 11).

Before we look at how these CBPR principles informed thinking and practice on the *Pararchive* project, it is necessary to engage with crowdsourcing⁸—the second co-design approach embraced in the development of *Yarn* and associated digital tools. Commonly believed to have been coined by Jeff Howe in his *Wired Magazine* article written in 2006 and subsequently developed further in a series of ensuing articles and book he published in 2009, crowdsourcing has come to be known as a primarily web-based approach by which firms and organisations outsource problem-solving or solicit potentially feasible solutions to specified problems from an ideally diverse crowd via an open call (Howe 2006). The focus of subsequent scholarship has tended to characterise crowdsourcing as a refreshingly different, albeit, exploitative web-based business model situated primarily in business studies and creative industries research (Rossiter 2006; Leimeister et al. 2009; Rouse 2010). However emerging work from other fields and disciplines—such as architecture and planning, information management, and social marketing and health communication—is increasingly making use of the approach to advance respective conceptual underpinnings and practice (Nash 2009; Zhao and Zhu 2012; Parvanta et al. 2013).

More pertinent to our discussion here is the potential use of crowdsourcing as a model for problem solving beyond the business sector, academic disciplines and other professional boundaries (Jones et al. 2008). Of this, Brabham (2008, 75–76) observed that the approach is “distributed beyond the boundaries of professionalism” where ‘non-experts’ and/or ‘amateurs’ can contribute creative solutions

⁸ According to Howe (2009, 280–282), there are several forms of crowdsourcing, namely collective intelligence and/or crowd wisdom, crowd creation, crowd voting, crowd funding and any combination of (some or all of) these. We adopted relevant aspects of collective intelligence (e.g., soliciting comments, views, knowledge and other input from all the *Pararchive* project stakeholders), crowd creation (i.e., facilitating active engagement in design and discursive processes through the different stages of the project) and crowd voting (seeking stakeholders’ judgement and preferences on, say, interface design and language use) Surowiecki (2005). For a general overview of each of the specified forms, visit <http://www.crowdsourcing.org/>

“toward non-profit applications for health and social and environmental justice” among other areas. One such area is heritage—a sector that has recently witnessed an emergent body of literature on crowdsourcing based on co-curatorial and participatory rather than business transactions (Boon 2011; Owens 2013; Ridge 2013, 2014; Pople 2015). Its deployment within the cultural heritage sector can, we believe, have a more balanced and egalitarian focus and allow for an exchange of expertise and content to create new knowledge. Where the success of crowdsourcing in the business world has hinged on tapping into the knowledge of the recruited ‘crowd’ in product and service development processes, such success in the heritage sector has manifested itself through the ‘crowd’s’ contribution to adding value to digital cultural heritage collection content (Owens 2013), ultimately improving this for public benefit (Proctor 2013). It is this understanding, particularly its emphasis on the non-exploitative tenets of crowdsourcing, that guided co-design work on the *Pararchive* project.

Of the ten features or ‘rules’ Howe (2009) listed that characterise crowdsourcing, we have selected the six that we believe exemplify our approach to collaborative working on *Pararchive* and emphasise the need to:

1. Pick the right model;
2. Pick the right crowd [or—in the specific context of *Pararchive*—better rephrased as: identify the relevant stakeholders—for example, local community groups, institutional partners, technologists and research team—to work with];
3. Offer the right incentives;
4. Keep it simple and break it down into easily understandable parts;
5. [Accept that] [t]he community is always right;
6. Ask not what the crowd [or the selected stakeholders] can do for you, but what you can do for the crowd [or stakeholders] (280–289).

From a conceptual point of view, both CBPR and crowdsourcing as forms of collaborative methodologies, draw on a number of instruments to enhance engagement. In turn, as the argument goes, engagement—if harnessed well—unleashes creativity, energy and optimism in engaged partners. Consequently it lays the foundation of increased interaction, discussion and online and offline action, all of which are crucial aspects in working towards achieving set goals and thereby effecting desired change (Denison and Stillman 2012). This is especially so—as in the case of the *Pararchive* project—where such collaborative enquiries and problem-solving challenges comprise “designing, developing, managing and interacting with information systems, optimising the use of [digital] technologies and managing [a wide range of content]” (McKemmish et al. 2012, 985). But in practice, it all starts with clearly understanding and defining what the enquiry to be undertaken is seeking to achieve and/or what the problem to be solved is.

As noted above, the key overarching objective⁹ of the *Pararchive* project was to co-design and co-produce a new ‘open’ access digital resource the aim of which was to facilitate engagement with, and use of, public archival resources for storytelling, historical research and creative practice. The thinking was that the resource would enable individuals and local community groups to research and document their histories via the creative linking of their own digital content (film, photographs and other ephemera) with archival material from public institutions such as the BBC and the Science Museum Group (Pople 2011). Crucially this involved us in an extended consideration of the transfer of IP and the copyright implications of collaborative practice and the value of labour in this context (Kennedy 2011). All parties were concerned with ownership of content. On the one hand communities were unwilling to surrender content to large institutions and see their materials ingested on a remote server over which they had no control or right to redress. On the other museums and galleries, often handling third party materials themselves, were concerned with the implications of publishing material not covered by creative commons models—especially when creative re-purposing or re-authoring was an intended consequence of collaborative work.

The outcome of these negotiations was a consensus of working in a context in which there was no direct transfer of IP and in which institutional and private content could be linked from respective third-party sites through the use of hotlinks and orchestrating text and tagging. In a similar manner there was to be a collective approach to the ownership of content created on the site, with full accreditation of the ownership of stories and referenced materials. Authors and content providers retained the right to edit and ultimately remove materials, securing a sense of individual ownership that would engender trust and confidence in the platform and prevent the exploitation of resources and individuals.

Similarly, the recognition of the value of labour in such creative endeavour was crucial to establishing an equality of experience and opportunity. In implementing this consideration it is useful to situate our experience in relation to current critical framings of ‘free labour’ and exploitative practices often misleadingly presented as mutually rewarding. In his discussion of emergent ecosystems centred on new online collaborative documentary practices, Dovey (2014, 11–32) presents an analysis of critical positions perfectly applicable to other forms of collaborative labour in the cultural heritage sector. Considered within the context of a documentary ecosystem, he argues that assessing who is exploiting whom, is perhaps the wrong question to ask. The assumed inequality of labour and reward predicated by significant post-Marxist critiques is not enough to understand what is happening in new forms of collaborative affective labour, and that a more nuanced understanding is necessary to fully explain engagement and innovation. These he characterises as “new patterns collaboration” that constitute a “new ecosystem” where “the mutuality of exchange creates the value that makes the system itself coherent and

⁹For a detailed discussion of the other key overarching aims of the *Pararchive* project, see Pople (2015).

meaningful” (Dovey 2014, 21). His model of a negotiated and self-defining system of rewards is borne out in our experiences of working with and across communities and in differing practices and aspirations.

Given the complexity of this undertaking in terms of accommodating the varying interests and needs of both local community groups and institutional partners, it was essential to bring on board a technology team that had a vested interest in connecting people from different backgrounds and varying levels of technical capability and digital experience.¹⁰ Our experienced technology team, assembled through *Carbon Imagineering*, were drawn from commercial backgrounds and had worked for large multi-nationals such as Orange. They were excited by the prospect of being able to go beyond the traditional practices of responding to pre-determined briefs and being able to work with and for clients who would develop the specification with them. This challenge to orthodox working patterns allowed the *Carbon* team to explore new ways of working and helped define the innovation of the technology lab model that characterised their working practice with our parent communities. Likewise, it was important that a research team was assembled that—for the most part—shared the affinities and agendas of the rest of the project stakeholders.

As noted in Mutibwa and Philip (2014), four local community groups¹¹ situated in three different regions in the U.K. were at the heart of *Pararchive*. In line with the aim of enabling storytelling, historical research and creative practice, two of these (*Brandanii Archaeology and Heritage* and *Ceramic City Stories*)—based on the Isle of Bute in Scotland, and Stoke-on-Trent respectively—were heritage-focused while the other two (*Arduino MCR* and *Bokeh Yeah!*) both from Manchester were more creative and technology-orientated. Although the groups exhibited different foci, the one aspect that they shared in common was that they actively engaged with issues in their respective locales that mattered to them based on the extensive local knowledge and social networks that they possessed. These factors—coupled with the geographical spread—rendered them suitable for collaboration.

Through regular technology laboratory workshops over an eighteen-month period, *Carbon Imagineering*, along with the research team, worked with the respective community groups to identify any storytelling and historical research projects that individual members were interested in pursuing and where possible, to look for connections among these. An early indication of the potential of this approach emerged in the joint interests between our Bute and Stoke-on-Trent

¹⁰ Digital inclusivity was a driving concern and led to the development of the supplementary *Island Stories Project*. <http://www.buteman.co.uk/what-s-on/leisure/leeds-team-in-bute-digital-heritage-visit-1-3554161>.

¹¹ Visit the following links for more information about each of the four community groups: <http://www.discoverbutearchaeology.co.uk/>; <http://ceramiccitystories.org/about>; <https://www.facebook.com/ArduinoMCR>; <https://www.facebook.com/BokehYeah>.

groups that centred on industrial archaeology and ceramics history.¹² As observed elsewhere and in alignment with CBPR principles, the initial workshops were designed to:

build good working relationships and chemistry with the four *Pararchive* community groups in the co-design lab workshops we held, something that was instrumental in helping us listen to group members' research interests and affinities, understand their aspirations and motivations, and support them [...] to tell their stories (Mutibwa 2014, no pagination).

Out of these early conversations arose the input used to design the initial interactive prototype versions of *Yarn* as well as recurrent themes that centred around "archaeology, dairy farming, conservation of natural resources and landscapes, wildlife, urban greening, genealogy, ceramics and pottery, reminiscence and memory, digital and music heritage, as well as the exploration and digitisation of archives" (Mutibwa and Philip 2015, 4).

Ensuing workshops concentrated on two main aspects, namely story-building exercises; and prototype testing. The former involved structuring stories in the form of blocks or events (metadata about dates, places, people), artefacts (which enrich/support the story, for example, photographs, audio-visual content) and connectors (which link the blocks/events together) while the latter comprised inviting project stakeholders and numerous potential external users and groups to test the early interactive prototypes for functionality and suitability (Mutibwa and Philip 2014). In tune with the outlined CBPR principles and crowdsourcing rules above, this move helped integrate key aspects of user-centred design and/or participatory design, especially as far as the prototyping workshops and functionality evaluations of users were concerned. During the various co-production and development phases of *Yarn*, the *Carbon* team put in practice what it preached by responding positively to the needs, anxieties and preferences of the broad range of potential users, thereby ensuring that *Yarn* became a truly and easily navigable resource for the wider public to use.

4 Case Study

To understand how we applied these principles we will briefly consider Ceramic City Stories group (CCS) based in Stoke-on-Trent as an illustrative example. CCS members identify, explore, and tell stories about the people, culture, buildings and urban environment that continue to define Stoke-on-Trent as the unique ceramic

¹² Our communities developed new relationships, identifying common interests, and began working together and sharing knowledge and resources. For example, the famous Victorian toilets on the key side at Rothesay on Bute were manufactured in Stoke-on Trent and an exchange soon began between these two distant communities about its history and shared heritage. A tweeted photograph of the toilet ceramics was almost immediately responded to with information about the ceramic and a picture of the factory in which it was made several hundred miles away. <http://www.bute.me/victoriantoilets/>

city. Often revealing a local, national and even international context, the stories span at least three centuries and recount the history of the Potteries with a particular focus on coal mining, on the production of distinct ceramic ware (e.g., cutlery, vases, jars), and on heavy clay products (e.g., tiles, chimney pots). Furthermore, the stories engage with how associated traditions, customs, values, practices and myths have become inextricably intertwined with the lives, identity, and memory of the people from Stoke over time. Within the context of *Pararchive*, we explored the stories that community members wanted to tell, identified artefacts they wanted or needed to use to support the stories, and examined possible connections between the stories.

One such story wove together family and working life history in the Potteries. It told the story of a woman who—as an eleven year-old along with her family—was evacuated from London during the *Blitz* and relocated to the Potteries. Research into her life conducted by her daughter—and a CCS member—drew on a range of sources: anecdotal accounts and experiential knowledge of fellow group members within the community lab workshops; conversations with family members and other people from the Potteries who knew and worked with her; family photo albums; archived logbooks at the school she attended; local history websites; audio-visual content provided by the BBC through *Box of Broadcasts*; as well as inspiration from and access to a wide range of medical, ceramic and sanitary ware collections stored at the Science Museum but originating in the Potteries.

The family and working life details that she gathered about the period of her mother's past were new to her and she had been unaware of them until beginning work on *Pararchive*. This story is only one among many that highlight the energy and commitment to engagement with cultural heritage resources on *Pararchive* and played a key role in shaping and influencing the co-design of *Yarn* at all levels.

5 Institutional Spaces and Co-working

The success of the project primarily rested with our community partners, but was strengthened and guided by the support of the project's institutional partners—the Science Museum Group and the BBC Archive. Their provision of expertise¹³ and content not only helped enrich many of the storytelling and historical research projects, but it also provided a model through which local communities and public cultural institutions could reconfigure the ways in which they relate to each other with a view to maintaining long-lasting collaborative partnerships. Public cultural organisations now recognise the role that the differently-situated local community groups and interested members of the wider public can play in adding value to historical and cultural assets in a way that ensures the on-going relevance of such

¹³ See Popple (2015) for an exploration of possible models that could help address perceived contentious issues around third party rights and licensing agreements particularly as they relate to project work emanating from community-institutional partnerships.

assets. This recognition of and openness to collaborative engagement—as prescribed by some of the specified CBPR principles and crowdsourcing rules above—have facilitated the creation of a digital space where shared community and institutional affinities and agendas are nurtured and in which different sets of knowledge are co-produced to enhance public engagement with our common heritage. In doing so, concerns and questions often raised about power dynamics and control stacked in favour of either academic researchers or institutional partners are disproved, meaning that equitable partnerships can be achieved more often if sufficient time and effort is invested.

Our approach to the project was guided by looking at a key series of problems we felt communities and cultural organisations experience in relation to using online heritage resources and in developing such collaborative relationships. We felt that issues of access, copyright, and the restrictions often placed on usage were compounded by existing problems of web usability and the dispersed nature of existing resources and platforms. The project team was particularly keen to encourage the direct use of digital archives in creative work and historical research and at the same time examine how to break down the barriers between institutional collections (both geographic and administrative) and the publics they served (Adair et al. 2011). Both organisations were similarly focussed on the challenges of changing the nature of the relationships they enjoyed with existing public audiences and in developing new and mutually beneficial alliances.

In the first case the BBC, as a directly publicly funded national and international organisation, has a public service remit regularly renewed by government.¹⁴ It has been accused of being patrician and in enjoying a difficult relationship with audiences in terms of access to its vast archive of heritage resources and in the ability of those who have funded its acquisition to view and use materials (Weissmann 2013). It was keen to explore new models of collaboration and to try and resolve some of the issues around copyright and IP transfer, especially of third party materials, and engage the audience in the collaborative management of some of its resources through crowd funding and creative initiatives. It had made initial steps through projects relating to specific archive areas such as its Word Service programme collection and via the Digital Space initiative.¹⁵ By thinking more conceptually we were able to develop a model (which now needs to be tested) in which we move away from the historical model of the BBC's audience as viewers and listeners, receptors for content, to become active and equal participants. In conjunction with Tony Ageh, BBC Head of Archive Development, we proposed the concept of citizen 'animateurs', citizens who can:

play an increasingly integrated role in many of the fundamental functions of the archive and engage in a range of creative, research and storytelling activities that are no longer limited

¹⁴ The current BBC Charter is due to be renewed in 2016 and is proving extremely controversial.

¹⁵ See Kiss, Jemima. *A digital public space is Britain's missing national institution*. <http://www.theguardian.com/technology/2015/mar/05/digital-public-space-britain-missing-national-institution>.

or constrained by traditional anxieties about the ceding of power and the retention of a lone authoritative voice (Popple 2015, 137).

The Science Museum group were similarly concerned with reaching new audiences and developing models of collaborative practice which extended beyond local communities and visitors to their four museums based in the cities of London, Manchester, Bradford and York. What was also particularly problematic, and frustrating, was the barrier that existed between people and non-digital materials—objects and images—in a physical archival space. Collections, such as those owned by the Science Museum, were extremely attractive to communities but they felt remote and disadvantaged. One initiative, which has now grown into a follow-on research project of its own, saw us taking community volunteers from Stoke-on-Trent into the Science Museum archive to explore and select from one of the most valuable scientific collections in the world relating to their interest in ceramics. During this intensive weekend our community partners were given behind-the-scenes access to Blythe House, the Science Museum's object store, and encouraged to access and explore more than 170,000 artefacts not on public display. Working with curators they photographed objects of interest and we are now building a 3D visualization of the archive and developing hyperlinks to allow for greater access and ownership of public collections.¹⁶ The potential for creating an open and engaging space is evidenced through this community in residence project and provides a model of communities that coalesce around issues of common interest, shared aspiration and collaborative solidarity. Thus, this small example exemplifies the value of public institutional collaboration, and is emblematic of the project and its future potential to bring communities and institutions together in mutually reinforcing relationships as we seek to take it to the next phase.

6 Conclusions and Reflections

The question of trust, both in terms of the development of collaborative relationships and the resultant tool, and the value of labour and collective experience, is what ultimately guarantees the success or failure of this, or indeed any, collaborative project. Although its first phase is now complete we are developing new threads of research and strengthening relationships that have developed throughout its course. Ultimately we will be judged on the long-term success of the resource we have co-created, but in the interim the knowledge and reflective platform it has allowed us has generated a series of useful conclusions we now want to summarise and hope will prove useful for new projects and collaborative ventures in the field of cultural heritage research.

¹⁶ See a prototype here: <http://tomjackson.photography/interactive/blythehouse.html?html5=prefer>. We are also examining the potential of developing 3D patterns for remote community printers to address issues of embodiment and materiality.

1. The project has demonstrated the need for a commitment to partnerships between communities (defined in their broadest sense) and institutional partners to develop digital interfaces to facilitate co-curation, creative exploitation, and shared copyright models that open up cultural resources and normalise relations in open digital space. It has highlighted the need for openness, honesty, and the ability to listen as well as speak. It has highlighted the value of recognising where expertise resides and of the importance of plural voices.
2. It examined the role of co-creation within this developmental context and highlights the importance of current approaches to the problems of liberating cultural resources from formally closed and often remote institutions. This is a necessary, democratic, and moral undertaking.
3. It has also examined the tensions between different cultural sectors and drawn on the experiences of institutional partners interested in exploring these approaches as a means of reaching out to new audiences and allowed public expertise to inform knowledge about their collections. Above all, it highlighted the need to negotiate and recognise mutual needs, and acknowledge barriers such as copyright that are often beyond the control of partners. Crucially, it evidences the need to identify and value cultural labour in all its forms, and to respect mutual boundaries.
4. It has demonstrated the potential of developing social cohesion through collaborative working and collaborative storytelling predicated on shared cultural understanding and shared cultural heritage resources.¹⁷ It has shown the cumulative strength of working together to achieve commonly identified goals with clearly set expectations. (Cameron and Kenderdine 2010)
5. Finally, it demonstrated the importance of openness, of the recognition of different levels of engagement, of different literacies, and of the value of mutual respect across communal and institutional boundaries.

As we continue to reflect on our immediate experiences there is much we would do differently in any future project. But we have only come to this realisation through the experience of collaborative working and from learning from all our partners. Collaborative working is deeply rewarding and continually challenges critical assumptions and models of practice and is thus essential as a consequence.

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¹⁷ One of the most memorable experiences was working with communities to discover what they were passionate about and what they wanted to explore through their own storytelling. This passion and expertise was infectious and as the project progressed communities developed new relationships, identifying common interests, and began working together and sharing knowledge and resources. The famous Victorian toilets alluded to earlier represent an illustrative example among many.

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Crowdsourcing Culture: Challenges to Change

Dora Constantinidis

Abstract

Cultural heritage is a perishable resource that is not renewable and is at constant risk of permanent loss. Galleries, libraries, archives and museums (GLAMs) have traditionally been regarded as the guardians and gatekeepers of a nation's culture and have taken on the role of "protecting" heritage. This traditional role can now be extended to incorporate the curation of digital cultural heritage, including that sourced by citizens (crowdsourced). By asking the public for their assistance to preserve their heritage, albeit by digital means, two objectives are achieved. One outcome is the creation and preservation of digital cultural heritage for future generations. Another significant outcome is that crowdsourcing provides a conduit for increased public engagement with heritage that is of significance and relevance to them. The current ability to crowdsource digital cultural heritage potentially challenges the role and status of GLAMs as primary caretakers of heritage. Since the public can play a greater role in preserving their heritage, authoritative control will need to be reconsidered and adapted to align with heritage that has been deemed important by people. Irrespective of these challenges the opportunity to digitally preserve heritage should take precedence, especially in high risk countries facing conflict and socio-political unrest. This chapter will highlight some of the challenges of engaging people with crowdsourcing cultural heritage and the requirement of designing appropriate engagement strategies. The need for crowdsourcing Afghan cultural heritage will be considered given that it is currently facing many threats to its preservation for future generations.

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K.J. Borowiecki et al. (eds.), *Cultural Heritage in a Changing World*,

DOI 10.1007/978-3-319-29544-2_13

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1 Introduction

Digital crowdsourcing is generating increased research output and applications. Digital devices provide the capability to better engage people's interest and commitment to collectively share their efforts in generating data and information to benefit the wider community. Most noteworthy are citizen scientists who can contribute by digitally monitoring and recording the natural world ranging from flora and fauna, to astronomical phenomena, and of relevance to this chapter, by digitising cultural heritage. Crowdsourcing digital cultural heritage is proposed as an enabler in efforts to rescue and save heritage under threat. The chapter commences with an overview, in Sect. 2, of the significant role cultural heritage plays in society and the need for its preservation in light of the threats it often faces. With a focus on Afghan cultural heritage, a range of hazards are prioritised to create a stronger awareness of the need to deploy suggested strategies based on digital platforms that can help preserve heritage not only in Afghanistan but worldwide. Section 3 then highlights in more detail some potential digital preservation strategies for the protection of cultural heritage with an emphasis on digital crowdsourcing. The need to identify change and engage agents is pivotal to any crowdsourcing project and is discussed in Sect. 4. This section provides insights into the importance of change agents and how crowdsourcing projects can improve their chances of success if appropriate change agents are in place. An example of a change agent as an engage agent is proposed for the case of Afghan cultural heritage as a potential driver to help preserve that nation's culture. A significant means of heritage preservation could be instigated by education campaigns inspired by a change agent's message to people to provide, for example, digital photographs on coordinated digital platforms. Section 5 then goes on to present how crowdsourcing can transform both the protection and dissemination of cultural heritage including how its digitisation can also lead to its virtual restoration. Finally in Sect. 6 some future directions for crowdsourcing digital cultural heritage are presented.

2 Cultural Heritage: Significance and Threats

Family heirlooms facilitate a connection to our personal past, and can contribute to shaping and affirming our individual identities (Belk 1990). For connection to a public past, cultural heritage positions this within a more collective context. Cultural heritage can be considered to be the national heirlooms created by previous generations, typically consisting of physical constructs that include buildings and crafted landscapes. Traditionally galleries, libraries, archives and museums (GLAMs) are the collective "homes" that store and display national heirlooms. Significant or rather "monumental" tangible culture is predominantly curated by museums in order to showcase a nation's heritage (McIntosh and Prentice 1999). What this chapter will present are strategies to digitally crowdsource tangible heritage beyond the confines and constraints of GLAMs. The proposed strategies

can be extended to intangible aspects of cultural heritage such as folklore, music, dances and stories, which can also be captured and disseminated by digital means.

Museums usually promote the collective identity of a nation to its citizens and the rest of the world by sharing tangible, cultural heritage which is status-oriented and affect-generating (Assmann and Czaplicka 1995). Sharing cultural heritage can also potentially help bridge differences amongst diverse groups of people within one nation (Ashworth et al 2007). Preserving and sharing, for example, Afghan cultural heritage can play a very important role in peace building (Dupree 2002). An inscribed plaque and banner at the Kabul museum provides a very emotional reminder of the great impact cultural heritage can have on the identity of its people, all 30 million or so in Afghanistan. The current director of the Kabul museum quite emphatically reinforces what has been inscribed on the plaque: “A nation stays alive when its culture stays alive” (Massoudi et al. 2015). Beyond the sentimental and emotional value of cultural heritage for its citizens (Silberman and Purser 2012), it can also provide a means of regenerating the fundamental values of a broken nation and restore some normality to people and their communities. But unfortunately, this most valuable and irreplaceable resource is being exploited with quite the opposite effect. Cultural heritage, both tangible and intangible, faces an onslaught of threats worldwide (Blake 2000) and especially in Afghanistan.

Archaeologists are often associated with uncovering cultural heritage as the physical artefacts and remains of buildings at archaeological sites. Their work is especially pertinent for archaeological salvage operations especially those in war-torn areas such as Afghanistan. Unfortunately remnants of past cultures are often lost forever due to numerous significant threats, the impact level of which can be graded relative to the context they appear in. An attempt to grade threats to cultural heritage in Afghanistan is presented in Fig. 1 below. Cultural heritage is mainly threatened by looting, direct conflict, mining and construction developments. Given all these threats that often lead to a permanent loss of heritage, at the very least, digitally recording tangible heritage wherever possible can help preserve the past. Preservation and access to the past is considered to be a basic human right (Francioni 2008; Silverman and Ruggles 2007; Iacovino 2015).

Physical preservation of threatened heritage is paramount and preferable; however crowdsourcing cultural heritage with mobile devices in whatever mode (Owens 2013; Oomen et al. 2011) should become another avenue for its preservation, especially under dire circumstances. Despite the complexity of challenges that exist in extreme situations, unless there is a pressing humanitarian crisis provoked by war, motivating and generating the interest of local populations to preserve their own cultural heritage with mobile phone cameras may be a viable solution (Alam et al. 2012). By analysing local social drivers, including the most popular means of public communication, and taking ethical approaches in the use of new technology to protect peoples’ privacy and security, crowdsourcing can lead to an effective strategy to digitise cultural heritage that people come to engage with and care about (Ridge 2013; Tait et al 2013). Given that most mobile phones are now equipped with Global Positioning Systems (GPS), the location of any photographed heritage can automatically be captured as well (Han et al. 2014b). With the creation and



Fig. 1 A proposed gradation of threats to cultural heritage in Afghanistan

availability of a Geographical Information System (GIS) database that can store crowdsourced geo-tagged photos, an archive of digital cultural heritage could then be accessed within a cyber-context by people who took the photos as well as be preserved for future generations for both viewing and analysis, which can include all the spatial attributes as well.

Amidst challenging circumstances in Afghanistan, archaeological salvage operations continue to rescue heritage especially from looters (Benard 2012; Brodie et al 2006). Looting is an age old problem, where cultural heritage such as antiquities are sold for sheer profit. Archaeologists in Afghanistan have reported seeing antiquities being sold in shops in Kabul. Heritage artefacts are even sold in the virtual marketplaces of the internet (Campbell 2013). Despite determined efforts to prevent looting, there is an ever increasing worldwide rise in the loss of heritage by this threat. It will take very targeted and sustained multinational campaigns to prevent the selling and buying of tangible cultural heritage by everyone involved (Brodie et al 2001). For now, the race is on between the archaeologists and the looters. Unfortunately the looters are apparently winning at the moment because unless archaeologists can get to sites before looters do, cultural heritage is displaced and any chance for a better understanding of the past is lost forever.

Looting is unfortunately aggravated during times of conflict, with the added burden that archaeological sites are often destroyed because of their proximity to strategic military positions. The site at Mes Aynak is an example of work by Afghan archaeologists who rushed to save what they could when they became aware that it was being looted (Benard 2012). However in this case added to that, is the threat to the site by nearby copper mining (Bloch 2015). Mining can perhaps be placed on the same level of threat as construction in Afghanistan. With an estimated 1 trillion dollars of lithium reserves alone, and billions of dollars of other precious minerals, such as copper, this threat will significantly increase (Risen 2010). Ironically, when national security can be guaranteed it is more than likely that mining companies will expand (Wilson 2010). Hence the threat mining poses to the destruction of cultural heritage is expected to increase and will significantly impact efforts to rescue the cultural heritage of Afghanistan.

Construction and development is another major threat, especially with the expansion of new infrastructure such as roads. This is a real issue in Afghanistan, because the traditional silk route followed the most convenient path through a landscape that has not changed much in over 2000 years. In the process of improving the existing road network, any sites that are located on or near the silk route will come under serious threat. Another serious threat that is also caused by people arises from extreme socio-political outlooks. A preeminent example of this threat having already occurred in Afghanistan is the destruction of the Buddha statues at Bamiyan (Flood 2002). Finally, erosion and natural disasters, such as earthquakes, are always potential threats however in most cases there is very little control over these. This aggregate of threats to cultural heritage worldwide, and especially in Afghanistan, unfortunately permeates all of cultural heritage both tangible and intangible. Any loss of cultural heritage leads to people being further disconnected with their past which eventually will result in impoverishing theirs and future generations' identities (Silberman and Purser 2012). By exploring new digital avenues for capturing and sharing images of culture via mobile devices and online websites, these can, at the very least, 'virtually' preserve and provide some connection to the past, albeit in a digital format (D'Alba et al 2015; Loh 2010). This provides a 'shifting affordance' strategy from the traditional physical presentation of culture in bounded static places (such as museums and galleries) to fluid, location-free and on-demand access to digital cultural heritage, which regrettably in some cases may no longer physically exist.

3 Developing Digital Preservation Strategies for the Protection of Cultural Heritage

Multiple digital enablers are playing a significant role in rescuing, gathering, and provisioning pervasive access to cultural heritage within a cyber-context (Terras 2015; Tait et al 2013). Digital preservation strategies involve an ongoing process of recording, storing, accessing and disseminating digitised cultural heritage products that can then inspire further cycles of this process. Figure 2 represents a high level

Fig. 2 The lifecycle of digitised cultural heritage



process of digitising either tangible or intangible heritage which facilitates a digital avenue to preserve threatened cultural heritage for current and more importantly future generations (Chowdhury and Ruthven 2015).

Any part of the process of preserving cultural heritage by digital means can impact numerous efforts to combat many of the threats it faces. For instance the threat that exists due to looting cultural heritage could potentially be counteracted with targeted online social media campaigns incorporating a dissemination of digital cultural heritage images and information. This can even lead to naming and shaming people who buy looted artefacts thus effectively drying up the market for illicit antiquities. On the other hand, with the availability of online digital access, GLAMs are increasingly engaging in participatory crowdsourced contributions that can also include informed annotation for their digitised cultural heritage collections (Dijkshoorn et al 2012; Tait et al 2013). Digitised images of cultural heritage can be used to create virtual reconstructions of objects and entire sites (Gruen et al 2014) that in most cases can be viewed online by anyone in the world with access to the internet. This worldwide dissemination of digital cultural heritage can lead to increased interest and ultimately improved preservation of cultural heritage. As for the transition to the mobile era, archaeologists are now afforded the use of mobile phones to gather data in the field far more conveniently than ever before.

Because artefacts and ancient structures are found in specific locations at a site, a Geographical Information System (GIS) is the most appropriate means to store and then view heritage data on maps. Spatially referenced objects comprised of the artefacts and buildings found at a site need to be recorded within the context of their immediate surroundings so that any spatial relationships and patterns are later

investigated for clues about how people lived in the past. For archaeologists the most time-consuming task is to carefully record all these spatially referenced data and store them in a format that can then be easily accessed for later analyses. This is where computer technology such as GIS can come to the rescue by helping to create digital records that make it easier for geo-locational and spatially bound analyses to be conducted. There are apps or programs that archaeologists can adapt and use on their mobile phones to record and analyse spatial data even in real time. A leading GIS company has already developed an app available on mobile phones to record spatially referenced objects (ESRI 2015).

There are also an increasing number of freely available open-source apps such as the Federated Archaeological Information Management System (FAIMS 2014). The FAIMS app is presented as having been specifically designed for archaeologists and is free to use (Pearce 2013), benefitting many cash-strapped archaeological projects. In the news release Pearce (2013) states that this app can help the way archaeologists capture and record data: “The app allows the recording of text, location, imagery, and audio data on Android devices. The system will also allow data captured by other devices, images from SLR cameras, or [scanned] drawings done by hand to be linked to the records”. Given such efficient digitisation of artefacts, the faster archaeologists can gather data with tools such as these, the better chance there is of getting to other sites and saving cultural heritage before looters and other threats destroy it. This is especially pertinent during times of war and conflict, because with conflict comes the added threat of losing cultural heritage to accidental digging as well. Soldiers often unknowingly end up digging artefacts, displacing their all-important spatial contexts, and all the valuable information that goes with that. So apart from being destroyed by rocket fire, cultural heritage is also threatened by soldiers just setting up camp and especially in Afghanistan with such a wealth of artefacts found almost everywhere one digs.

Even though conflict poses so many threats to cultural heritage, archaeology is not usually a priority, for obvious reasons. This was definitely true during the First and Second World Wars, when many major archaeological excavations were put on hold and regrettably a large degree of cultural heritage was destroyed. The destruction of so much cultural heritage during times of conflict was officially recognised by UNESCO after the Second World War and stringent policies were implemented to minimise and mitigate threats to a greater extent than those already established by the Hague Convention in 1899 (Hague 1899). The 1954 Hague Convention states:

The Convention for the Protection of Cultural Property in the Event of Armed Conflict adopted at The Hague (Netherlands) in 1954, as a consequence to the massive destruction of the cultural heritage in the Second World War, is the first international treaty of a worldwide vocation dedicated exclusively to the protection of cultural heritage in the event of armed conflict. . . . The Convention was adopted together with a Protocol in order to prevent the export of cultural property from occupied territory, requiring the return of such property to the territory of the State from which it was removed (UNESCO 1954).

After the Second World War, these initiatives by UNESCO led to establishing the 1954 Hague Convention that aims to implement policies to protect cultural heritage during times of conflict. UNESCO clearly recognising the pivotal

importance of cultural heritage by stating that: “cultural heritage reflects the life of the people, its history, and its identity. Its preservation helps to rebuild broken communities, re-establish their identities, and link their past with their present and future.”(UNESCO 1954). The 1954 Hague Convention was subsequently modified to align with more recent events, as is illustrated by the second protocol that was ratified in 1999, which states:

The destruction of cultural property in the course of the conflicts that took place at the end of the 1980s and the beginning of the 1990s, highlighted the necessity for a number of improvements to be addressed in the implementation of the Hague Convention. A review of the Convention was initiated in 1991, resulting in the adoption of a Second Protocol to the Hague Convention in March 1999 (UNESCO 1999).

One of the outcomes of this resulted in increased campaigns for cultural heritage training of military personnel to make them more aware and more sensitive to the issues concerning the protection of cultural heritage during war. The document suggests:

Training for the military with particular reference to [Article 7](#) of the 1954 Convention provides for the obligation to introduce in time of peace into the military regulations or instructions such provisions as may ensure observance of the Convention to establish, within armed forces, services which secure respect for cultural property and to co-operate with the civilian authorities responsible for safeguarding it (UNESCO 1999).

It is noteworthy that UNESCO places emphasis on cooperation with civilian authorities responsible for safeguarding cultural property. This implies that GLAMs are the responsible civilian authorities to ensure the preservation of cultural heritage. However given the availability of digital enablers such as mobile phones, crowdsourcing such efforts beyond GLAMs are now plausible and UNESCO may soon incorporate the importance of crowdsourcing culture by “non-authoritative”, local people into its policies as well.

Currently any UNESCO abiding military force, by necessity, will provide at the very least, pocket guides made available for troops to read about the important role they can play in safeguarding cultural heritage in conflict zones. Within the last two decades these pocket guides have also been transposed to online resources, such as the US Department of Defence: Cultural Property Training Resource website, with reference in this case to troops deployed to Afghanistan (DoD 2013). This online resource is transparent and can also be accessed by civilians who can “take the test” to assess their knowledge on how to protect cultural heritage in conflict zones. This website is yet another example of a digital preservation strategy as dissemination of information, with examples of digitised cultural heritage made available online for education and training of military personnel about how to protect cultural heritage during times of conflict.

Unfortunately despite all these initiatives and policies, there are still destructive forces at work that undermine efforts to preserve cultural heritage, especially in times of insurgency. Often it seems that the representative blue symbol placed at cultural heritage sites around the world, is just that: another symbol. Despite all the efforts of UNESCO, and good intentions internationally, the Buddhist statues at

Bamiyan were still blown up, and looters continue to loot. However there is growing recognition that power to overturn all this destruction can be sourced from change, a change in people's attitudes towards cultural heritage through education. If people's attitudes do change, then there is real hope. Digital technology, like never before, can be a very influential driver for such change (Han et al. 2014a). Education can come in many formats, and internet websites can provide a powerful catalyst for this.

The Association for the Protection of Afghan Archaeology (APAA), which was established by the former Director of Afghan Archaeology, *Dr. Tarzi*, has coordinated the creation of the APAA website. This website provides a very rich resource of information freely available on the internet. The association publicly acknowledges the need for change and is even petitioning for it online. The Change.org online petitioning website included as a link on the APAA website is there to engage and motivate people to provide a sustained effort to help preserve, in this case, the cultural heritage of Afghanistan. This is another example of crowdsourcing but in this case as online support for the recognition of the important role cultural heritage can play in nation building. Current research into gamification (Flanagan et al 2013; Paraschakis and Friberger 2014) and other strategies to motivate people to participate with crowdsourcing in a cyber-context (Ridge 2013), may possibly lead to an increased understanding of what motivates and even de-motivates people to contribute to crowdsourced projects (Alam and Campbell 2012). This research may be pivotal in reducing the current threats that cultural heritage faces by providing key strategies to motivating especially local people to digitally crowdsource images of their cultural heritage. A solution for saving whatever remains of heritage for future generations may be provisioned as crowdsourced projects become more effective, with the help of well-established virtual online communities (Gregory 2014). So the opportunity for protecting cultural heritage, and especially that which is threatened under extreme circumstances, may ultimately come to rely more so on well executed crowdsourcing initiatives.

4 Crowdsourcing Cultural Heritage Motivators: CHANGE = ENGAGE Agents

Crowdsourcing projects could benefit from key influential people called change agents, especially in regions under the threat of social and political instability. These actors can instigate change (Caldwell 2003) and be pivotal in engaging others to act for the common good, which in this context would be to preserve cultural heritage in Afghanistan. In the case of Afghan cultural heritage, the most appropriate change agent is the current Director of the Kabul Museum, *Omara Khan Massoudi*, who, despite great threats to his personal safety, managed to coordinate the rescue of the "Afghanistan treasures" which are currently touring the world (Afghanistan 2015). Thanks to *Massoudi*, and staff at the Kabul Museum, these treasures were not lost forever and, because of him, other cultural heritage may also

be rescued from destruction. *Massoudi* could definitely play a significant role as a change agent to inspire and engage other people, especially in the education of children. Education is fundamental in facilitating change to which children are more likely to respond to. With whatever means for delivering education, change for the better has an excellent chance of succeeding. We all know from personal experience that what we learn as children, we never forget, and it lives with us for all our days, so the hope for any change will ultimately be by educating children in Afghanistan. With only an estimated 10 % of people having access to the internet, for now the most effective educational campaigns will be in schools and by radio. In Afghanistan, radio communication has already been exploited as an effective communication medium for promoting Afghan nationhood (Dupree 2002). Radio programs can be developed specifically to educate people about the importance of saving their cultural heritage since this is the most appropriate means for effectively communicating this message at the moment.

However given that mobile phone usage is rapidly increasing in Afghanistan, educational campaigns on protecting cultural heritage could also be delivered as online content and even as apps. When education on cultural heritage is effectively coordinated in Afghanistan, then mobile phones can also help protect and preserve it. Firstly by educating people on the importance of protecting their cultural heritage and then in turn, having people go out and photograph it with their mobile phones, hence preserving it, albeit in a digital format. However communication technology and devices on their own are of no use if people do not see the point. People do need to be inspired: the Book of Proverbs (29:18) states that “Where there is no vision, the people perish”. This is where increased access to virtual images of cultural heritage could inspire people to participate in a more concerted effort to rescue their heritage. People in Afghanistan could upload photos of their cultural heritage online to a dedicated website for the entire world to see, hence effectively providing them with a deeper sense of cultural heritage ownership. Crowdsourcing, as the name suggests, relies on people power: it is within the hands of the people to make a difference and, in this case, to cultural heritage.

Victor Sarianidi, who had excavated the Tillya Tepe Bactrian treasures which are now associated with rediscovery of the “Treasures of Afghanistan”, believing that they had been lost forever, said in great despair, “Now all that we have left are photos.” That was true, for just over 20 years. What remained of the treasures were only their images, reflected by the eyes of the photographer, and it was fortunate that *Sarianidi* had taken many photos. In this case, it was even more fortunate that the physical manifestation of the treasures had been spared, thanks to the efforts of *Massoudi* and a select number of staff at the Kabul Museum (Sarianidi 2015). Photos, of course, can never replace cultural heritage, but considering all the threats it faces, it is better to have photos than have nothing at all. Increasingly museums have embarked on crowdsourcing activities in many formats, one of which is to ask visitors to share their impressions of the exhibitions by uploading their photos, as for example to the official Melbourne Museum website (2015). This is just one case of co-participatory crowdsourcing (Ridge 2013; Owens 2013). With digital cameras converged with mobile phones, creation and access to photographed

images has been changed forever. Photos are no longer trapped in treasured family photo albums, photos are free. They can now be shared literally instantaneously all around the world.

Apart from dedicated websites where people can share photos for a specific museum context, there are many other online avenues to share photos. Crowdsourced photos in relation to local cultural heritage instigated by individuals on Facebook are gathering momentum (Gregory 2014). Another digital outlet for individuals is the Flickr site, where special interest groups can also be created, such as the one that the Melbourne Museum (2015) has generated and is using to power its own public crowdsourced photo album. Another place where photos can be shared is on Google Maps/Earth. Google Maps allows people to post photos on any point on their maps. Fortunately, photos sent to Google Maps are vetted to make sure that they are not going to offend anyone, a policy any publicly interfaced crowdsourcing effort should seriously consider. People are already posting photos relating to Afghanistan onto Google Maps. This collective, worldwide map-based photo album is being created at a phenomenal rate with an assortment of photos. There are for example even photos posted of camels out in the Afghan desert just north of Kabul, but of more relevance to consider are the photos of cultural heritage relating to Afghanistan.

The already posted photos of cultural heritage are very promising for any future official and authoritative coordinated effort to preserve Afghan cultural heritage by crowdsourcing strategies. Some current examples of Afghan cultural heritage posted to Google Maps are photos of the Buddhist statue niches cut into the rocky cliffs at Bamiyan. Even more fortunate are the photos that have been posted of the statues before they were blown up. *Elios Amati* posted one of these photos onto Panoramio (2013), a photo sharing platform which has now been incorporated and owned by Google Maps. Hopefully, more people will be inspired to follow suit and post more cultural heritage photos. With strategically elected change - engage agents promoting such campaigns even more images of heritage, especially that which has already been lost and destroyed, could be sourced by crowdsourcing.

Photos on Google Maps/Earth can also be annotated by others by tagging them online and if needed even correcting the location on the map where the photo was attached to. This reflects key strategies undertaken by a number of crowdsourced projects such as the Australian Newspapers Digitisation program that seeks public goodwill to correct scanned newspaper articles (Alam and Campbell 2012). In the case of photos posted to Google Maps/Earth, since people do not always click on the right location allowing this ability for the crowd to make corrections is an invaluable feature. However now that mobile phones have GPS, any photos can automatically be geotagged, with the earth's coordinates and even altitude embedded into them, thus reducing the need for people to correct locations. Given that photos on Google Maps/Earth are geotagged, later analysis of the distribution and extent of cultural heritage can also be better investigated, however taking into consideration that GPS, for the moment, does not accurately capture the distance from where the photo was taken.

Google Earth incorporates additional GIS functionality that is not offered by Google Maps. Since Google Earth provides extra layers of geographical information about the surrounding environment this feature can be used to analyse the context in which crowdsourced photos were taken to provide for a better understanding of their overall location. Other features these photos have are tags and user generated text, and people can even elect to link Wikipedia entries to their photos. Despite the current challenges in managing (Chowdhury 2015a, b) and accessing all these free-style tags or folksonomies, the information people provide is widely recognised as a means for generating greater engagement in crowdsourcing efforts (Ridge 2013; Han et al. 2014a).

It is encouraging to see the increasing numbers of cultural heritage photos making an appearance on both Google Maps and Earth, especially for Afghanistan. As more photos are posted, eventually a timeline of cultural heritage can even be created. For example, when the Darul Aman Palace [translated as “abode of peace”] is finally restored to its former glory in Kabul, the archived photos of what it appeared as in its ruined state can serve as a stark reminder of a time when there was no peace. Another significant outcome when such crowdsourced images are carefully archived and community considerations taken into account, is the access that future generations will have to these photos (Iacovino 2015). With all these images on Google Maps/Earth, we will eventually be able to view changes in cultural heritage over time in order to reflect on the impact society has had on its cultural heritage and vice versa.

With appropriate change-engagement agents in place, such as *Massoudi* in Afghanistan, people can be encouraged to post cultural heritage photos to Google Maps/Earth. As more significant numbers of people in Afghanistan are afforded the opportunity to participate in a digital preservation of their culture, a coordinated and specifically well-designed mobile app for local populations could dominate efforts to rescue heritage that is of significance to them (Chowdhury 2015a, b). Digital crowdsourcing facilitates an open creation and access to digital images of heritage by the public and for public consumption. In Afghanistan, people using mobile phones could take and then upload photos of cultural heritage to a specially created website, powered by a GIS database. The major mobile phone providers in Afghanistan could be enlisted to provide incentives for people to engage in such a crowdsourced project, whether it is giving them extra minutes of talk for every heritage photo they upload (for free) or whatever other means of motivation is deemed appropriate.

A dedicated website showcasing local people’s photos could provide a strong impetus to change attitudes towards cultural heritage for the better. Mobile phones and crowdsourcing go hand-in-hand (Han et al. 2014b). The power of crowdsourcing is only as strong as the motivations and drive people have for collaborating, people drawing together to make a difference. There’s real hope to protect and preserve cultural heritage in Afghanistan, not only in the cyber world, but in the real world as well. Despite all the challenges that Afghan people are currently facing, there is great potential for collaborative crowdsourced projects because the Afghan people already recognize the power of crowdsourcing: it is

reflected in one of their famous proverbs which states that “Many drops make a river.”

5 Crowdsourcing Transformations: Cultural Heritage, Digital Protection and Restoration

Concerted crowdsourcing campaigns have the potential to transform both cultural heritage protection and digital cultural heritage restoration. Apart from viewing photos of cultural heritage that both visitors and local Afghan people upload to either Google Maps/Earth, or a dedicated (GIS) website when it is established, these photos can also be used to digitally reconstruct destroyed heritage. The digital reconstruction of lost heritage could also be undertaken by crowdsourcing efforts as well. An example of this type of crowdsourcing project that has been implemented and is currently under construction is the Mosul Project. Project Mosul (2015) is an initiative led by researchers at ITN-DCH (2014). This crowdsourced driven project has been instigated to mitigate the destruction of cultural heritage by Daesh (IS). It uses crowdsourced imagery provided primarily by tourists who had previously visited these heritage threatened areas to reconstruct that which has now been destroyed. Photos are fundamental to this project since any that were taken of heritage that is now destroyed can be used to recreate virtual images of this. People who have taken photos of sites and artefacts are being encouraged to submit their photographs and these are then logged and digitised by volunteers as part of this crowdsourcing effort. It has been reported that the project has received more than 700 photos so far, including 543 showing artefacts from Mosul (Webb 2015). Currently an online “gallery” showcases fifteen 3D reconstructions, completed by nine volunteers (Project Mosul 2015). These reconstructions are important because while, “[t]hese models don’t have the same scientific value as if we were able to do this with calibrated cameras, laser scans, etc. But the 3D models still have the value of the visualization—being able to see what the artefact was like.” (Webb 2015). Despite the debate about the effectiveness of virtual museums (D’Alba et al 2015) and virtual reconstructions of heritage (Garau and Ilardi 2014), in the case of Iraqi and Syrian heritage, going virtual is the only option for making a connection to cultural heritage that has already been sadly destroyed.

Crowdsourced heritage photos, apart from offering the ability to digitally restore destroyed heritage, can also be incorporated into a dedicated online GIS database. Such online access could be made available for the purposes of recording cultural heritage directly onto digital maps by local people for example in Afghanistan. People, if they choose, can then have access to spatially referenced records that contain both text and images which are retrieved directly on maps. Any digitally reconstructed heritage could also be incorporated on such maps depicting where these heritage objects belong to spatially. Cultural heritage in a map-based context can also be tagged to allow for easier searching and discovery in a cyber-world. Three main levels of information delivery as depicted in Fig. 3 could not only give

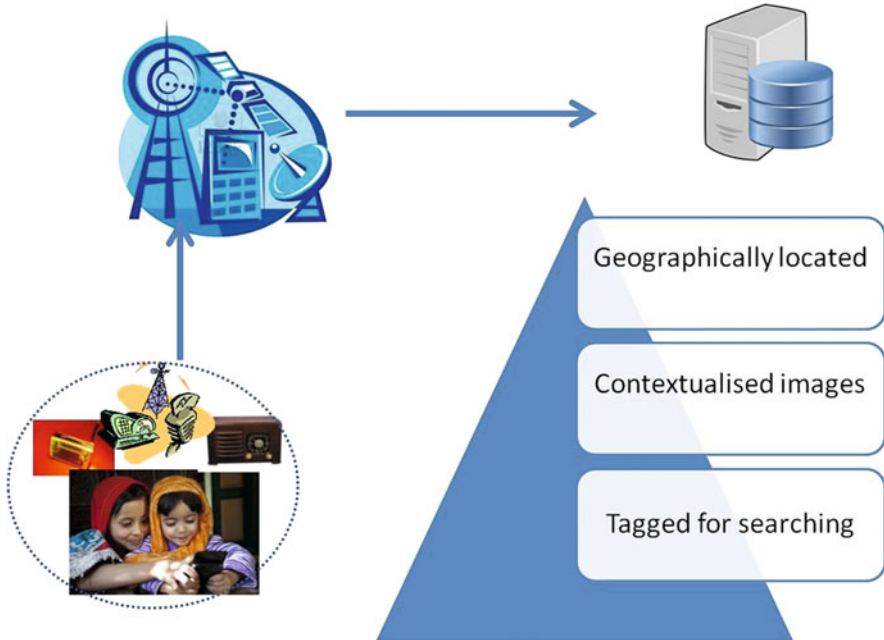


Fig. 3 Digitising spatial cultural heritage: Levels of digital information provision

“authorities” but local people as well the ability to geo-locate heritage and view this within its spatial context, thus providing a more holistic view of cultural heritage.

Access to a dedicated heritage GIS database from crowdsourced images would allow for map-based images of cultural heritage. These spatially referenced images could then also be used to curate a virtual spatial museum (Owens 2013). Digital curation strategies can only be developed given more insights about all the dimensions of digitised cultural heritage collections (Terras 2015). Given appropriately developed digital curation policies and outcomes, even physical museums such as the Kabul Museum could incorporate into their physical catalogues virtual images of cultural heritage. Ultimately the endowment of heritage via crowdsourcing, and the subsequent access to publicly sourced cultural heritage images via a mobile app or online website will allow for more personalised choices of heritage engagement. Once ethical and legal issues of privacy and IP are clearly established, initiating digital heritage exhibitions for education or entertainment can potentially be better informed within the context of being able to analyse public creation and consumption of heritage with the availability of digital analytics. This may then allow traditional GLAM institutions to design more user focused cultural exhibitions that better align with public choices (Chowdhury 2015a, b).

Furthermore in Afghanistan, the Archaeology Police could also benefit in their duties to better monitor heritage protection by accessing spatially referenced digital heritage images to flag any new heritage appearing at different locations on a map.

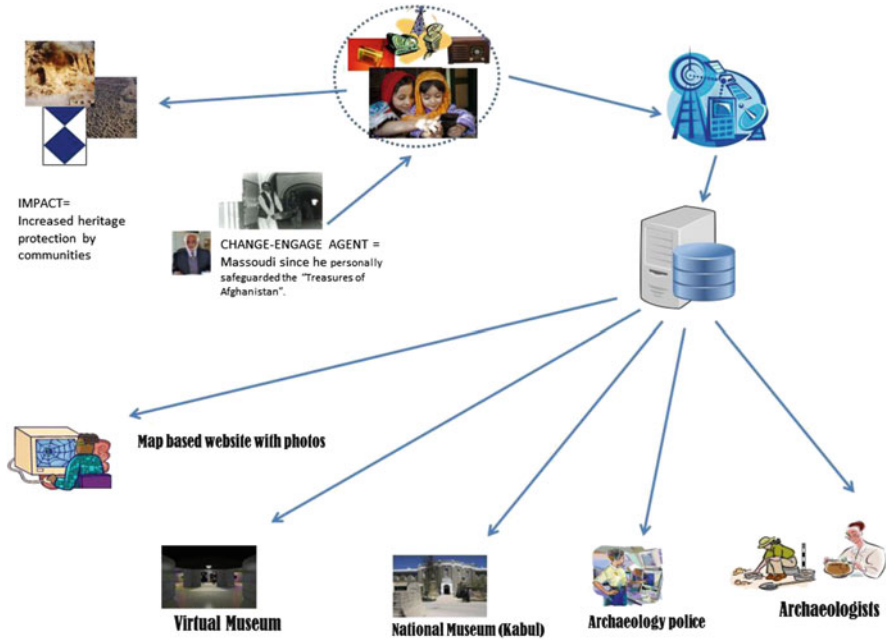


Fig. 4 Potential impact of digital protection strategy for cultural heritage in Afghanistan

Additionally archaeologists could also access spatially referenced images to help make better links to establishing spatial heritage patterns in the past. Therefore from crowdsourced photos and information, the potential output and impact to local communities and ‘authorities’ is significant. Hence designing and implementing appropriate crowdsourced projects is paramount. A proposed framework for implementing a crowdsourced project for the protection of Afghan cultural heritage is presented in Fig. 4. The integration of key change agents, such as *Massoudi*, to instigate targeted educational campaigns can possibly better engage people with their heritage inspiring them to participate in recording it. The consequence of this is a number of significant outcomes and impacts, discussed above and depicted in Fig. 4. These outcomes are likely to lead to an improved preservation of actual heritage and dissemination of digital heritage that can benefit both individuals and institutions such as GLAMs.

6 Future Directions for Crowdsourcing Culture

Having considered crowdsourcing for heritage under threat within the context of Afghanistan a number of observations for future research can be presented for cultural heritage that is not only threatened under extreme circumstances but is also threatened by a changing *digital* landscape. By facilitating a more proactive role in creating and accessing heritage that people make available, crowdsourced digital

heritage collections can then challenge the domain and standards heritage professionals may be abiding by (Oosterman et al 2014). Digital curation policies for publicly sourced images of culture should also be considered in light of the more open access that crowdsourced projects promote. With the increasing availability of mobile devices that are GPS enabled, developing apps that can allow heritage images to be geo-located on digital maps and be made available to the public online and directly to their mobile devices also opens up new opportunities for traditional institutions to expand their horizons. Who, what and where heritage has been digitally captured and consumed by others can be documented and analysed to determine patterns of preference in relation to heritage that is of significance to the “crowd”. Personalised interactions can therefore be regarded as an opportunity to change how culture is “consumed”. Despite the challenges facing responsibly and ethically managed crowdsourcing culture projects, especially in how and what motivates the public to participate in this digital creation of culture, significant opportunities to better understand public engagement can also be availed by traditional museums by analysing choices the public make in creating and consuming culture on their mobile devices.

Mobile devices now allow the public to play a more proactive role in creating and accessing heritage they choose. However digital curation for crowdsourced or citizen heritage poses unique challenges to the collation and ease of access to publicly sourced heritage artefacts, be they objects, buildings or places. A key challenge to collating publicly sourced digital heritage is in addressing information management and retrieval methods for reliable, easy access to digital content ranging from images, audio and text-based information. It is generally accepted that folksonomies - the free-style tagging of information and objects (via URLs)—for one’s own retrieval can facilitate a more personalised access to online data. It is therefore important to investigate how folksonomies can further instigate open access for digital citizen heritage and the virtual communities that contribute to such projects.

Europeana’s Pinterest experiment (2015) to allow people to share and tag heritage that is of personal significance to them is an example of how folksonomies have now morphed into collaborative virtual share spaces. Pinterest is a visual folksonomy that provides numerous access points to digital citizen heritage with particular reference to images of places, buildings and objects that are valued by the online community that creates and tags them. An impact analysis of this visual folksonomy as a self-evolving curatorial process allowing people to “pin” (tag) places and objects of interest to them and post their comments to already pinned content may reveal how often these images are consequently tagged and retrieved which may then indicate levels of engagement and reciprocity of collaboration. This future investigation of folksonomies for crowdsourced heritage may then help to determine patterns of data stewardship which can be traced in order to analyse how digital heritage is created, organised, retrieved, used and preserved. However since crowdsourced heritage facilitates everyone as a provider of data, one possible challenge is that people may be constrained by lack of or limited domain knowledge and the objectives of a heritage project. So it is proposed that contextualised

frameworks, such as the one proposed in Fig. 4 for Afghanistan, need to be created to implement crowdsourcing initiatives that are based on an investigation of the underlying motivations and behaviour of people who will engage with crowdsourcing their culture within their unique and specific cultural, social and national milieu.

7 Conclusions

Despite the challenges of instigating and coordinating crowdsourcing projects for data and information creation and sharing in any domain, but in particular for cultural heritage that is under threat, an analysis of the social and political milieu can lead to strategies that successfully implement these initiatives and lead to improved outcomes. Of utmost importance and a possible key to greater success is determining and assigning appropriate change agents to engage people by promoting and being a champion of efforts for any crowdsourced project. Even though this chapter considered some of the challenges of crowdsourcing, and in this case for Afghan cultural heritage, it is hoped that one day such proposed initiatives will be more viable despite conditional circumstances. More research into motivational factors, ethical considerations and information access to crowdsourced digital culture could improve recent efforts and provide digital platforms that both current and future generations can use to connect with heritage that both informs and affirms their identities.

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Part IV
Identity

The Spanish Republican Exile: Identity, Belonging and Memory in the Digital World

Lidia Bocanegra Barbecho and Maurizio Toscano

Abstract

In recent years there has been an increasing number of websites dedicated to providing information about the Spanish Republican exile. These are generally created by exile descendants' associations, research groups or private individuals. The recent growth of social networks, especially Twitter and Facebook, has simplified the exchange of this information and allowed the culture of the Republican exile to spread through the Internet and beyond, also influencing the scientific literature on this topic. This paper aims to analyse how the memory of the exile has grown through the Web with the passing of time and to examine the channels of communication that have become places of identity and belonging for the exiles, creating and enhancing a culture that permeates not only communities interested in the subject, but also people not directly linked to it. At the same time, it also aims to lay the foundations, for the first time, for the study of the memory of the exile in the digital domain. We start by recounting the burgeoning creation of websites and social media groups devoted to the republican exile, from 1998 to 2015, and link it with both contemporary Spanish political events and an in-depth look at recent Twitter activity. We then move to a fresh look at the digitised literature in Spanish on this topic present in the Google Books corpus, and finish by exploring the results from an online survey

The original version of this chapter was revised. The erratum to this chapter is available at DOI [10.1007/978-3-319-29544-2_16](https://doi.org/10.1007/978-3-319-29544-2_16).

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conducted in order to gain an insight into the motivations behind the increasing interest in the Spanish Republican Exile in contemporary global society.

1 Introduction

This paper aims to analyse how the memory of the exile has spread through the Web with the passing of time and to examine the channels of communication that have become places of identity and belonging for the exiles, creating and enhancing a culture that permeates not only communities interested in the subject, but also people not directly linked to it. In the last decade, websites, social network groups, and digital resources about the Spanish republican exile have increased significantly. The global nature of the exile itself fits very well with the Web, which has become widely used by individuals and groups related to this topic wishing to recover its historical memory.

Why this global character? The exile resulted from the republican defeat after the Spanish Civil War which lasted 3 long years (1936–1939). While the exile began early in the conflict, when the war fronts between republicans and rebels kept changing, the largest diaspora of peoples occurred over January and February 1939. As the Catalan front was falling during that hard winter, about 500,000 people crossed the border with France. Ranging from republican soldiers and officers, government officials, to women, children and the elderly, people travelled primarily on foot supported by only a few motor vehicles. The French Government improvised concentration camps on the beaches of Argeles-Sur-Mer, where most of them were placed. Shortly thereafter other camps were organized: Saint-Cyprien, Arles-sur-Tech, Barcarés, Bram, Gurs, etc.; not forgetting the French colonies in North Africa where the concentration camps of Morand, Suzzoni and Relizane, amongst others, were created to locate those exiles arriving by sea from Cartagena and Alicante. In September that same year World War II broke out. Many of the republican refugees could not escape overseas to Mexico, Chile and other Latin American countries, so they had to fight for a second time alongside the French government or for the resistance, while others perished in the Nazi death camps.¹

Initially, the interest in recovering the memory of these exiles began within the walls of universities and associations of exiles, but then the Web gave voice to the interests of the anonymous exiles, internationalising the collective memory of this Spanish historical event and narrowing the gap between the people and the culture of exile. In other words: what started as a subject owned by historians and the family members of exiles, soon, thanks to the Internet, spread out organically and spontaneously throughout society, in the multitude of countries concerned by this phenomenon. Thus, the culture of the exile reached the common citizen, becoming more accessible.

Finally, this paper also aims to lay the foundations, for the first time, for the study of the memory of the Spanish republican exile in the digital domain. Unfortunately, due to space limitations in this chapter we cannot make a comparative

¹To learn more about the republican exile see the following bibliographical list: <http://exiliadosrepublicanos.info/en/bibliography-exile>

analysis with the Spanish Civil War, which has an even stronger presence on the Internet and also generates great interest.

2 The Republican Exile on the Internet

2.1 Methodology

A workflow protocol involving several steps have been established to locate and describe those active websites and social networking pages that directly or indirectly deal with the republican exile, producing a wide range of qualitative and quantitative data to analyse.

1. We started with an existing list of 71 active webpages collected during the e-xiliad@s interactive project,² run since 2010 by Lidia Bocanegra Barbecho, author of this chapter.
2. This list was supplemented with other sites mentioned by users who participated in an online survey conducted specifically for this analysis. However, of all the websites identified by the surveyed users, all but 12 were already included in the initial list. This is significant because it reinforces the importance of the e-xiliad@s list as a reference source for the republican exile.
3. This expanded list was then checked against new Web searches in Spanish, French and English.
4. Additional searches were performed against social network platforms, mainly Facebook and Twitter and to a lesser extent Google+, YouTube and Pinterest.
5. Once the complete list was defined, we proceeded to split it into two main groups. Firstly, websites and social network pages that focus exclusively or mainly on the republican exile, and secondly those that refer to this topic indirectly, dealing for example with the Second World War or with French and German concentration camps. The final list comprised 183 webpages,³ but for this analysis we will focus only on the first group, subsequently divided into two: 74 standalone websites and 36 social network pages.
6. Four main languages were used for the Web screening: Spanish, being the language spoken originally by the people involved in this historical event; Catalan, as primary language of an affected region; French, being the main host language of the diaspora; English, being a sort of *lingua franca*, widely used on the Web.

²The e-xiliad@s international project is dedicated to obtaining unpublished sources of Republican exile directly from the users themselves (<http://exiliadosrepublicanos.info/>). The material obtained within this project, and the data collection methodology developed, resulted in several publications on the theme of exile, including in the field of digital history (Bocanegra and Toscano 2015).

³For the full list please visit: <http://exiliadosrepublicanos.info/en/links>.

7. For each of the selected websites we made an effort to find out the original date of publication on the Internet, in order to discern the frequency that new pages about this topic were created.

2.1.1 Identifying Publication Dates and Languages

A variety of methodologies and techniques have been used to identify the publication date of webpages on the list. In some case it has been fairly simple, sometimes it was necessary to combine several methods together, in few cases it has been impossible.

For Blogs we used the date of the first post in the archive. For Wikipedia pages the publication date is stated on the Page Information section. For standard websites with a proprietary domain, the publication date is sometimes given on the Home or About Us pages or in the footer section, but for the vast majority we had to rely on several online tools to read WHOIS data ([Whois Domains Tools](#); [Whois lookup](#); [EURid](#)): these identify the owner of a domain and the date of registration, which is generally quite close to the publication date. Another very useful tool in this process has been the Wayback Machine ([Internet Archive](#)) available on the Internet Archive website, which stores random copies of websites since 1996. Even if these snapshots cannot give an exact date of publication, at least they establish a close *terminus ante quem*. They have been used for all those websites that are a subdomain or a section within a more general webpage, as the WHOIS only provides data for the root domain. Examples of this kind of websites come from research groups or projects affiliated to universities ([Exilio Network](#); [Mostra bibliográfica](#); [Spanish Music in Exile](#)), foundations ([Biblioteca del Exilio](#)) or governmental institutions ([Chemins de mémoire. L'internement](#); [Ministerio de Cultura](#)), among others. Finally, in some cases, it has also been useful to perform Google searches⁴ looking for news published on digital media regarding the creation of a particular page.

Sometimes websites change domains over their lifetime, increasing the difficulties of tracking down the publication date. For example, the *Asociación para el exilio cultural español: Hamaika Bide Elkarte* initially used the domain hamaikabide.org but then changed the extension to .eus, while the *Centro Documental de la Memoria Histórica* (Documentation Centre of Historical Memory) moved its root domain from mcu.es to mecd.gob.es⁵ due to the change of government and ministerial nomenclature in 2011.

In terms of social networks, in some cases we found pages registered on exile topics, but with little ([Operació Stanbrook Facebook](#)) or no ([Interacción de los exilios](#)) activity, probably in order to reserve a space for future exploitation.

⁴ In Google, we used the Custom Range option available within the Search Tools to filter news from a specific period of time, then word sorting results by date.

⁵ The actual website link changed from <http://www.mcu.es/archivos/MC/CDMH/index.html> to <http://www.mecd.gob.es/cultura-mecd/areas-cultura/archivos/mc/archivos/cdmh/portada.html>.

Of the Facebook pages on the list, only the public ones had a visible publication date, while Public or Closed groups and Unofficial pages lacked this information. For Google+ we used the date of the first post, while Twitter profiles and YouTube channels normally show that info in the About section. It has been impossible to identify the publication date for the Pinterest pin-board⁶ about the republican exile (Pinterest).

To determine the language of social network pages we especially took into account the association, institution or person in charge, who normally also managed a website or a blog on the same topic, double checking such data against the language used in the page description. With regard to the content, the language of posts vary according to the source of the news published and comments based on their author.⁷

Finally, I would like to highlight that this is the first effort to conduct a study about how the republican exile is memorialised on the Internet, so there are no previous reference points and the literature is sparse.

2.2 Analysis

2.2.1 Web Pages Dedicated to the Republican Exile

Figure 1 below illustrates the rate of creation of active webpages on the Spanish republican exile. In total we have 74 webpages listed among those who either deal exclusively with the republican exile or who devote a large part of their site to it (Chemins de mémoire; Ministère De La Défense). Social networks have been excluded from this section.

As shown in Fig. 1, the republican exile appears on the Internet very early, with at least 4 pages online before 2000. Furthermore, the creation of new websites is uninterrupted, albeit with some variability, since the advent of the Web until today. Looking more closely, we can see that until 2006 there is little difference from year to year. Yet in 2008, after the publication in December 2007 of the *Ley de la Memoria Histórica*⁸ in Spain, there is an explosion in the creation of new websites on this topic. Almost 30 % of all webpages listed here were created between 2008 and 2009. The following year, 2010, the rate of creation drops significantly, yet doubling from the pre-2007 frequency (an average of 4.5 new webpages per year versus 2.2).

⁶ Pins are visual bookmarks and links back to the original site.

⁷ This pattern is reflected on the e-xiliad@s project Facebook page (created in 2010 by Lidia Bocanegra) where general info is offered in Spanish, post and news are published in Spanish, French and English but the vast majority of the comments are in Spanish: <https://www.facebook.com/exiliados.republicanos>.

⁸ The Law of Historical Memory (Ley 52/2007, 26th of December) was passed by the Spanish Parliament in 2007, under the mandate of the Prime Minister Jose Luis Rodriguez Zapatero. This Act includes the recognition of all victims of the Civil War (1936–1939) and the subsequent dictatorship of General Francisco Franco (1939–1975).

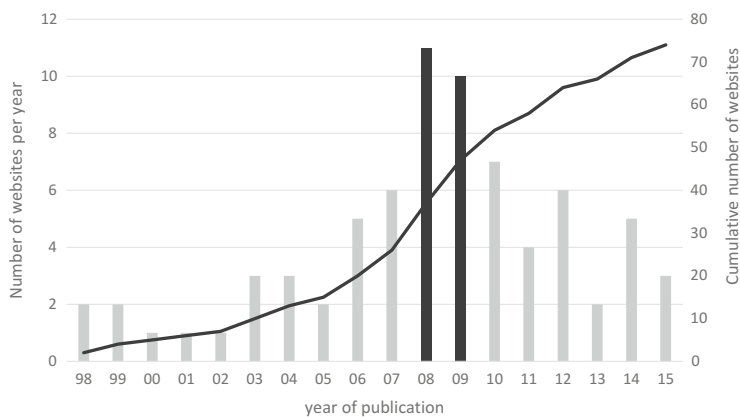


Fig. 1 Creation frequency of websites relating to the republican exile from 1998 to 2015, with cumulative curve. *Source:* compiled by the authors

Within this boom, eight pages are in Spanish, six in Catalan, five in French and only two in English. The preponderance of websites from Spain in this period strengthens the connection that can be inferred with the implementation of the above mentioned Law of Historical Memory: either as an influence coming from the spirit of the law or in terms of financial support from the government to carry out research projects on that subject. The vast majority of these websites are monolingual, with just 13.5 % having more than one language. In order of representation,⁹ the Spanish language includes 44 pages, followed by 21 in French, 14 in Catalan, 11 in English and 1 each in German, Basque and Galician.

Out of a total of 74 websites analysed here, 50 had their own domain or subdomain, 19 were blogs and 5 Wikipedia pages.

Website blogs can be divided into several categories. Many are primarily designed to disseminate a specific topic about the exile and offer photographs, audio-visual material and documents with a purely didactic purpose (*Art, Mémoire et Exil*; *Operació Stanbrook*). Other blogs are essentially biographical (*Diari d'un exiliat*) and, from the point of view of microhistory, offer valuable and unpublished information about the anonymous exile. Finally, those from associations and forums for the cultural memory, generally inform readers about related cultural events, publications, conferences, seminars, celebrations and commemorative field trips.

Websites with their own domain or subdomain can belong to three groups: associations, institutions or private people. The first ones (*Fills i nets*; *Association Retirada 37*; *FFREEE*), generally managed by descendants of exiles, often provide very similar information to blogs belonging to associations.

Webpages belonging to academic institutions, which offer information about research projects (*Spanish Music in Exile*), exhibitions, conferences and

⁹To calculate percentages, multilingual web pages have been counted many times as languages available.

publications, have a scientific rather than informative approach ([Exilio Network](#)). Non-academic institutional sites are mostly thematic ([Chemins de mémoire](#), [L'internement](#)), or dedicated to providing archival sources, acting as important repositories for specific exile topics ([Ministerio de Cultura](#)).

Private sites vary a lot from specific to generic subjects, but often become valuable repositories of precious unpublished information about the diaspora and the anonymous exile ([e-xiliad@s](#); [Espagne au Coeur](#)). These kind of websites are generally managed by specialists: historians or relatives of exiles very involved in collecting and publishing information about the republican exile.

2.2.2 Social Network Pages Dedicated to the Republican Exile

This section is focused on examining social network platforms like Facebook and Twitter as well as Google+, YouTube and Pinterest. We compiled a list of 36 pages about the republican exile: 17 on Facebook, 12 Twitter profiles, 3 Google+ pages, 3 YouTube channels and 1 Pinterest pinboard. Most of the Facebook pages are public so their content is accessible to anybody, while the seven public ([Buscando a hij@s y niet@s](#)) and closed ([Mapa Colaborativo](#)) groups require a Facebook account.

Figure 2 shows that the creation of webpages about the Spanish exile on social networks became significant in 2010, since before that date we found just two examples.

Social networks are increasingly used by institutions, private associations and individuals interested in spreading the memory of the exile, attracted by the ease of use and sharing potential of these new platforms. Sometimes these social pages become more popular than existing websites managed by the same people, and can then attract the main flow of information.¹⁰

In terms of languages,¹¹ Spanish is again, as expected, the majority with 28 pages, followed by Catalan and French with 4 pages each.

2.2.3 All Together: Websites and Social Networks

Considering both websites and social network pages together, we can clearly see in Fig. 3 that the pace of new sites creation stays almost steady between 2008 and 2014. As the number of new websites wanes, social network pages increase, showing a growing interest in disseminating this topic to a wider audience and recovering the memory in a different, more social way. Looking at the whole Web, the previously described boom extends until 2011, when the pace drops in an interesting correlation with the change from socialist (*PSOE*) to centre-right government in Spain (*Partido Popular*).

¹⁰ An example is the *Asociación de Descendientes del Exilio Español* (Association of Descendants of Spanish Exile) that, despite having their own website, use YouTube, Google+, Facebook y Twitter to publish the main flow of information.

¹¹ For Facebook pages, we took into account the language specified in the section *About*.

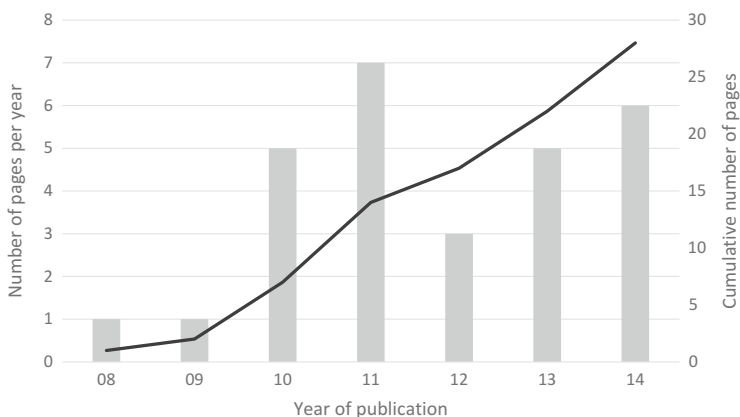


Fig. 2 Creation frequency of social network pages about republican exile from 2008 to 2014, with cumulative curve. *Source:* compiled by the authors

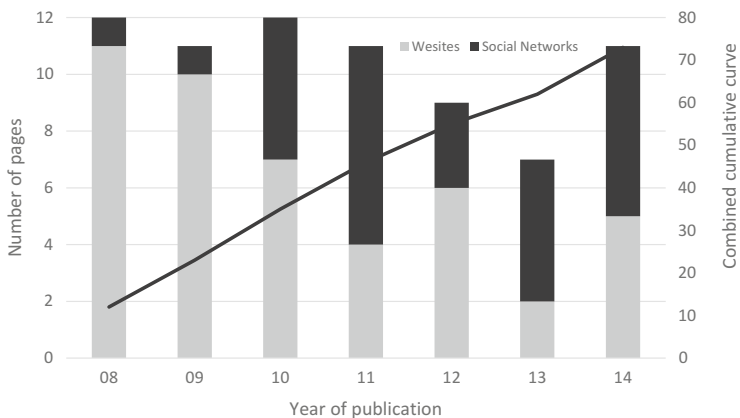


Fig. 3 Combined graph of creation frequency of new websites and social network pages from 2008 to 2014, with cumulative curve. *Source:* compiled by the authors

The growing interest in the republican exile on the Web, observable in the cumulative curve of Fig. 3, runs parallel with the subject of the Spanish Civil War (1936–1939). Indeed, a recent study (Eiroa 2014), shows that the civil war is still very popular in digital media, illustrating that the Internet is the most successful means to spread educational, cultural, informational, political and social material.¹²

The presence of the Spanish republican exile on the Web roughly follows the widespread growth of websites and social networks. As we have seen, the first

¹² This study provides a partial analysis of the Spanish Civil War on the Internet because, as indicated by the author, it analyses only four Spanish digital newspapers and other blogs, websites and social networks often without specifying them.

pages on this historical phenomenon were published in the late 1990s, in parallel with the outset of the Internet in Spain or France: before 1998 the Internet was used in these countries on a monthly basis by less than 3 % of the population (Eurostat; AIMC). In a similar way, the first page on social networks analysed here appears in 2008, the same year that Facebook was translated in Spanish and French (Wikipedia).

2.2.4 Twitter Activity

Social networks are increasingly becoming primary sources for social research. Among them, Twitter is taking a leading role, because with its hashtag norms, consistent length (≤ 140 characters) and more accessible application programming interface (API), it is easier to gather, sort and search when collecting data. Several tools have been developed to help the researcher but we will limit our focus here on a qualitative assessment of tweets relating to the republican exile and a visual representation of their geographic provenance.

For this study we collected tweets about ‘exilio republicano’ and ‘exiliados republicanos’ over a period of almost 3 months between June and August 2015.¹³ We gathered a total of about 300 tweets of various type: news sharing, retweets and original comments. In the timeframe analysed, the visits of Felipe VI to Paris and especially to Mexico produced a lot of activity on Twitter, because the monarch commented on the republican exile in these countries. 80 % of the tweets related to these visits were just news sharing, the rest were personal comments, mainly critical. Other events that produced Twitter activity were a documentary about the republican exile in northern Africa, a paper about Mexico, a documentary about the Maginot Line presented by the Spanish national broadcaster in mid-July and the survey implemented for this study: none of these produced a lot of original content from the users. In general, the activity on Twitter relating to the republican exile seems to be more focused on sharing news rather than on personal thoughts and opinions about related events.

An image is worth a thousand words, so taking advantage of a new feature available on the CartoDB platform (CartoDB), we decided to visualize this activity on a map. As mentioned earlier in this chapter, the republican exile is a historical event that affected several countries so we hypothesised that it would be worthwhile to visualise the relative location of collected tweets. Fig. 4 confirms that the exile remains a global phenomenon today, with Twitter activity from 17 countries, spread across several continents. The most prolific countries, as expected, are Mexico and Spain; while other less anticipated countries like USA, Brazil and even Armenia and Australia are also represented.

¹³ We performed searches in French and English as well, but the results were so scarce that we decided to exclude them from this analysis. Moreover, some tweets from French users use the Spanish words to refer to this topic.

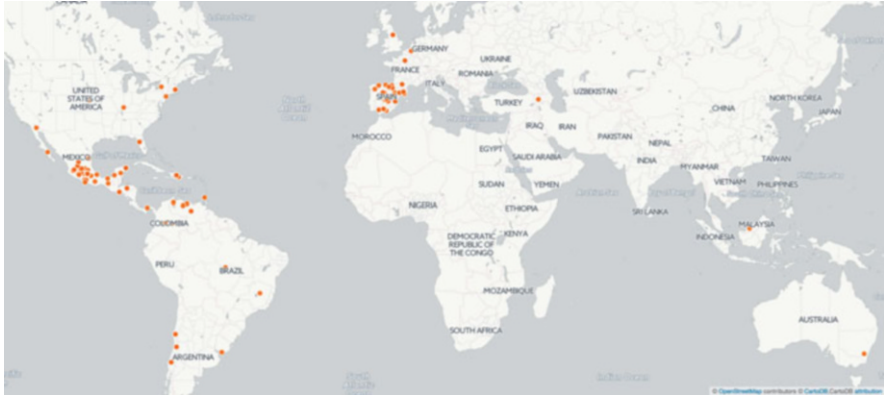


Fig. 4 Visualization of the geographic provenance of the Twitter activity related to the Spanish republican exile in the period June–August 2015. *Source:* compiled by the authors on CartoDB platform

2.2.5 Google N-Gram Analysis

Does the Internet have something to do with the increase of Spanish-language literature relating to the republican exile that appears from the end of the 1990s? The republican exile is a global phenomenon that connects people from disparate geographic locations and links them back to the origin of this historical event, Spain. The Web drastically shortens these distances, with the power to turn a worldwide phenomenon into something deceptively local. The increasing number of websites and social network pages on the republican exile is largely due to its international nature that perfectly fits with the Web. Using [Google Books Ngram Viewer](#) (VV. AA. 2011) we examined the frequency of the words (or n-grams) “exilio republicano” in books written in Spanish for the period from 1930 to 2008 (Fig. 5). In other words, we looked for the frequency of the republican exile topic in this literature. The most recent numbers found show more than eight million volumes digitised in Google Books, of which about 855,000 are in Spanish, the second largest corpus after English (VV.AA. 2012). We also included in the analysis the Spanish Civil War, because it is a closely related topic and an established subject in literature since 1936.

The republican exile appears in traditional books right after the death of dictator Francisco Franco (1975) and its presence grows very slowly until the end of the 1990s, when a relatively significant increase is recorded. This sudden rise in the literature coincides with the first websites dedicated to this topic, as seen in Fig. 1. We hypothesise here that with the advent of the Internet at the end of the 1990s, the topic of the republican exile takes on new life thanks to the Web’s information sharing over long distances. This new wave of awareness goes beyond the digital sphere and is reflected in new printed books since the late 1990s.

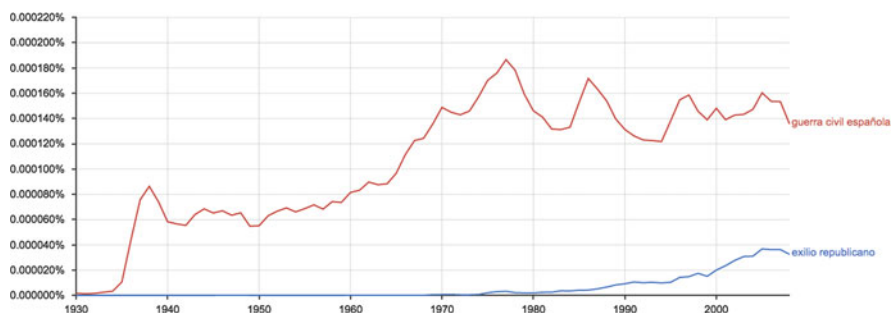


Fig. 5 Chart showing the presence of the republican exile and the Spanish Civil war in the Spanish corpus of Google Books. *Source:* Google Books Ngram Viewer

3 Identity, Belonging and Memory: The Online Poll

3.1 Methodology

In June 2015 we carried out an online survey in order to obtain qualitative data about users interested in the Spanish republican exile. The aim was to look at the pattern of behaviour of these users on the Web, including such things as which websites they visit and why.

The survey was conducted in three languages: Spanish, English and French and remained open online for a month from its start date on June 16, 2015. It was publicised in the three relevant languages on websites, mailing lists and social network groups, with the latter being the most effective. Overall the survey was sent to about 60 web pages and social networking sites focused on the republican exile or related topics. Posts were also added to online projects (e-xiliad@s) and academic channels: GrinUGR ([GrinUGR](#)) and Academia ([Academia](#)). Throughout the month, a new round of dissemination was held as a reminder, focused especially on previously contacted Facebook pages.

The survey ([Survey](#)) was divided into three parts with relative sub-sections, six of which were mandatory:

1. Personal data
 - (a) Name*
 - (b) Surname*
 - (c) e-mail*
2. Relationship with the Spanish republican exile
 - (a) What relationship do you have with the Spanish republican exile*?
 - i. Exiled
 - ii. Family of exiled
 - iii. Researcher/student of the exile
 - iv. Interested in the exile

- (b) If you're just an interested person about the republican exile: what is it that attracts you about it?
3. Web pages about the republican exile
- (a) Which of these websites about the republican exile you have visited?*
- (b) In case you usually check other sites not listed here, please specify which ones.
- (c) Why do you visit websites about the republican exile?*
- i. due to a feeling of belonging to a group
 - ii. because you feel identified with the exile
 - iii. because you can share ideas about the exile
 - iv. to know people close to your ideas and principles related to exile
 - v. because in that way you think that the memory of republican exile recovers
 - vi. looking for information and to be updated on the latest news about the exile
 - vii. OTHER
- (d) In case of "other", please specify

For questions 2(a), 3(a) and 3(c) the user had the possibility to select more than one answer. In 3(a) we added a list of 36 websites dedicated to the republican exile to choose from, also leaving the option to the end user to indicate other sites. In general, we focused on creating a concise survey that was easy for respondents to complete.

3.2 Outcomes

While expecting greater participation,¹⁴ we received a significant number of responses, 186 in total with 182 in Spanish, 2 in French and 2 in English.

Users were mainly relatives of exiles (63.2 %), while 6.5 % say they are exiles themselves. Although not stated, the latter most likely be children or relatives of exiles, in fact some of them have also marked the option 'family of exile'. It is noteworthy that, based on age and familiarity with the Internet, it was unlikely that actual exiles could participate in the survey.

The remaining audience was made up by 51 researchers, 14 of which were also relatives of exiles, and 44 people interested in the topic. This last group gave a variety of reasons to explain their interest: having had direct contact with the exiled in countries such as Bulgaria, Cuba, Chile and Mexico; close proximity with people deported to Nazi concentration camps; professional, intellectual or literary connections; or reasons related with memory recall, as indicated by a person who

¹⁴ For example, on the Facebook page of the e-xiliad@s project alone, with 464 followers to date July 29, 2015, the poll reached 655 people through 11 share and it was then published on other Facebook pages with many followers, i.e. Eco Republicano with 56k to date July 29, 2015.

wrote: “I’m interested in terms of historical memory, social justice, vindication and denunciation of the past” (M.C.A.). In fact, almost all the groups quote the interest in recovering memory.

Regarding the websites listed in the survey and most visited by users, the following should be highlighted:

- *Asociación de Hijos y Nietos del Exilio Republicano*: 111 mentions
- *Asociación de descendientes del exilio español*: 87
- *Guerra Civil española y Exilio Republicano*: 68
- *Españoles deportados a Campos de Concentración Nazis 1940–1945*: 51
- *Amical de Mauthausen y otros campos y de todas las víctimas del nazismo en España*: 50
- *Biblioteca Virtual Miguel de Cervantes–Biblioteca del Exilio*: 49
- *El barco del exilio*: 49
- *Fils et Filles de Républicains Espagnols et Enfants de l’Exode (FFREEE)*: 48
- *Niños de Morelia*: 48
- *Proyecto e-xiliad@s*: 45
- *Los niños que nunca volvieron. Españoles emigrados en tiempos de guerra*: 45
- *MUME: Museu Memorial de l’Exili*: 38
- *Centro de Estudios de Migraciones y Exilios (CEME)*: 36

As shown, the most visited websites are those belonging to associations of descendants of the exile, a correlation with the biggest group of respondents. Other quite popular sites are those focused on offering information, acting as repositories and those on Nazi concentration camps.

Among those websites suggested by the users but not listed on the survey three stand out: *Asociación para el estudio de los exilios y migraciones ibéricas contemporáneas (AEMIC)*, *Asociación para la recuperación de la Memoria Histórica (Memoria Historica)* and *Basque children of ‘37 (Basque Children)*.

When asked for the reasons they visit such websites, 68.1 % of all respondents expressed an interest in memory retrieval, and 50.3 % to look for information and be updated about the topic, just under 20 % chose the last one as the only reason.

Of all respondents, 44.9 % say they identified with the exile¹⁵ while 36.8 % visit this kind of websites due to a sense of belonging to a group.¹⁶ One of the respondents that specified a sense of belonging to a group, responded to the question of why visit the websites about the republican exile, saying: [I visit] “because of a loving feeling of being part of my father’s story who lived during the Spanish republican exile to France. I lived his memoirs beside him. . . they are indirectly part of my life too. I learned to share his political and social ideas as an out-and-out Republican and I join the recovery of this historical memory to make

¹⁵ For example, one respondent says that his father was exiled and because of this he has a special feeling with Spain (C.F.C.).

¹⁶ Of all people that marked the option of belonging to a group, just 3.3 % chose this option alone.

justice. I would love to be in Spain and participate in some way in this great work. Thanks, thanks, thanks.” (A.N.C.).

While both identification and belonging are comparable motives, a subtle difference lies between them. For example, it is possible that those exiled or their descendants identify themselves with this specific historical event, without necessarily being part of a group sharing ideas and memories. Let us remember that many women left Spain to be with their families and not necessarily due to professed political ideology. We are reminded of this by one of respondents, who commented: “I was raised by my grandmother who left a deep mark on me and, although it sounds like a paradox, it was her husband that was the republican, but she decided to follow him into exile” (A.G.B.). Sometimes the integration with the culture of the host country was such that, although the arrival was the result of a forced exile, it did not create the need to belong to any other group.

28.1 % of respondents visit those sites to find people with similar ideas and principles, while 25.4 % stated the more general reason of sharing ideas about the republican exile, even if many people chose both along with other motivations such as memory retrieval, or the feelings of belonging to a group. Comments have been offered both by the descendants of exiles and researchers with the common thread of recovering the past: “I think we should recover those stories to do justice in memory of those who deserve it”, says J.G.M.

4 Conclusions

In recent decades, stakeholders in the republican exile have seen the Internet as an excellent tool to disseminate and exchange information. Blogs and social networks have more and more become tools of expression and spaces of identity. A common goal is evident: recover the past with an emphasis on collective memory. Events such as the 1939 diaspora to France, the arrival in Mexico or the concentration camps are subjects that are shared, analysed and discussed, creating an online collective memory, leading to new social and sharing networks. It seems that now that the memory of the republican exile has moved to the Internet, it has been internationalised more than ever and it is influencing people who had no direct relationship with it. The impetus behind all these sites is connected to the descendants and researchers who have created a new dynamism for understanding and disseminating this subject. Such is the influence of the Web on this topic that we think it has influenced production in printed publications as well.

The process of recovering the collective memory of republican exile has received a strong boost with the implementation of the Law of Historical Memory by the Spanish Government, enacted in December 2007. On the Web, this translates into a period of increased creation of new websites between 2008 and 2011, of which most are in Spanish. The steady increase of pages on this subject, along with social networks starting from 2008, shows an on-going interest in spreading the reality of the republican exile through modern digital media.

The families of exiles, direct heirs of their culture, feel identified within these digital places, many considering them communities that they belong to. Some webpages are more influential than others, especially those more active and with larger channels for outreach, thus leading to a wider audience. This strong connection with those families fosters the sharing of information, especially unpublished and historically valuable private documents.

Research groups, university projects and libraries as well have quite a large presence on the Web with regard to this research topic, both with websites of large institutions or private researchers. The academic footprint is rather lost in social network groups, where researchers share and discuss informally with exile descendants or simply amateurs in this field, wide-spreading scientific knowledge.

The Internet has become the panacea of the anonymous exile, a voice for those who were not famous intellectuals, artists or politicians, giving them a name and sometimes a face. Thousands of photographs circulate on the Web through these digital channels: many taken out from the drawers of relatives rather than from institutional archives. In these identificatory communal spaces, collective memory about a past event that still remains unresolved and continues to create tensions also seeks acknowledgment.

“[...] The drama lived in my family, the silence and the forgetfulness of that period still lingers. The exile, the forced uprooting because of war and the following forgetting of a whole generation are really tragic events, so difficult to visualize!” (N.T.B.).

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Growing Up in the ‘Digital’ Age: Chinese Traditional Culture Is Coming Back in Digital Era

Situ Xiaochun

Abstract

This work focuses on how going ‘digital’ had an impact on and still influences Chinese culture. After a period in which Chinese tradition and culture has been undermined, since the 1980s until now China has entered a phase of rapid economic development, but the development of culture and education has not always equally kept pace. Universal education is still a problem for China, and Chinese tradition risks becoming a ‘relic’. Now, we want to rebuild our culture, get back our traditions. With digital technology, getting knowledge from our history becomes easier for everybody. It will let people understand tradition faster, and be educated faster. It will also let us protect our cultural heritage better. This chapter also investigates how Chinese artists work with the ‘digital’ and how Chinese people are experiencing the cultural changes of this digital era.

1 Foreword

I am a Chinese artist born during the Cultural Revolution (an isolated and chaotic period), grew up during the period of economic reforms (a period of cultural and conceptual subversion), matured in a period of information explosion (where the digital has had tremendous impact on society), and am now striving for a better life in the age of digital revolution (where digital technology is taking over the world). As someone living in the digital world, I have experienced many shifts in cultural values and social transformations. I hope I can use my experiences to provide an additional insight and understanding on how the ‘digital’ changed China, as well as its impact on cultural production in China.

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2 The 1970s: “There Was Almost no Television, One’s Family Was the Cultural Oasis”

My childhood was simple and boring. Culturally speaking, China was enclosed and isolated at that time. Both my parents are artists, and their jobs were assigned by the state. They were always busy and had to travel for work, so I rarely saw them. At that time, what you ate, drank, learned, listened to, looked at, or even the person you would marry were planned. Money was useless, because the meat and the eggs you received per month were rationed; even if you had money, you would not be able to purchase anything. During that period, people did not have any way of getting entertainment, cultural activities or personal space, because almost all of your personal time was taken, and everything was planned. You were only allowed 1 day off per week, and you would be exhausted after taking care of your home. Visiting the Forbidden City with my parents was a rare treat; it is ironic that all the teachers, media and people said: “we have happy life” in that period, while I remained doubtful of ‘this happy life’. In an era of material scarcity, one’s spiritual life was not the concern for most people, where ‘culture’ seemed unreachable.

I lived with my grandparents. My grandfather was a historian, who liked to read late at night. He saw I was bored, he gave me *Romance of the Three Kingdoms* to read—a classical text portraying China in the 1800. The characters written in this book were the traditional ones—those used in 200 A.D., a traditional way of writing developed from pictorial characters. From 1956, Mainland China adopted the simplified characters to replace the traditional. People of my age no longer had to study traditional characters in school. There was no punctuation in this book, which made reading quite tiresome, but soon, I got used to it.

It was only after I grew up that I realised that Chinese literature was developed from pictorial characters, and every character originates from a visual symbol. In other words, writing Chinese is like drawing an image. However, the simplified characters terminated the relationship between language and its visual form, as well as its connection with traditional culture.

Chinese calligraphy is a visual art based on the structure of the characters, using text to convey the content and meaning through self-expression. The critical essence of this artistic form is how the artist carries out the text in the content of his expression through the energy he exerts on the page. The simplified characters lack the structural and visual relationship in its writing, which is not apparent to the calligrapher. This is also the reason why calligraphers today are still writing in traditional characters, and their content is still primarily classical poetry. This is probably also due to the essential flaw of simplified characters being unsuitable to practicing calligraphy.

The simplified characters were invented for practical reasons and in fact they can save a lot of writing time. As people started to use simplified characters widely, their ways of thinking also began to change. More practical ways of painting were also developing—for example oil painting—and realistic forms began to replace abstract and symbolic concepts of Eastern painting, or ink painting that focuses on rendering the form.

The initial goal of simplified characters was to get rid of excess strokes in a character, so as to improve writing efficiency. Today, with the emergence of computer and digital portals, people's necessity to write is reduced, and like the Chinese phrase says "always forget how to write some words when they take up the pen". Yet with the emergence of computers, *pinyin* input method initiated another revolution. Thus, I think this may be the time to reinstate the usage of traditional characters, because the complication of writing is no longer an issue.

Ultimately my childhood was uneventful, every day was the same, getting up, lining up, having my name called, being criticised, . . . but everyone tells me that my childhood was happy, why did I never feel it was? What is culture? What is art? I had no idea. What are other people doing? What does elsewhere look like? Why are foreign countries mesmerizing? These are the questions I wondered at that time.

3 The 1980s: "What Might Have Been Wrong May Be Right, We Seem to Look at New Things"

With the opening of the economic reforms, myriads of new things rushed into the country. I thought music was supposed to be sweet, yet it sounded like mad people screaming and this was considered a famous tune. People began to make money. While in the past our teachers would tell us that being a materialist is bad, some people began to buy expensive clothes, and the teachers were still saying "It's not good to focus on vanity". Some people played guitar by the side of the street, and the teacher said they were products of capitalist class. I was a teenager, and began to think money was good, that it was nice to wear nice clothes, play guitar and dance disco, making me feeling free. So did I become bad? Life became more interesting, I wanted to listen and look at new things, I wanted freedom to express myself, so I decided to study art.

The economic reforms opened a window through which we could see the world, I remember that many people began to suspect that their life was not how it should be. People's desires became insatiable, the change made people look for a new life.

The telephone became popular, a household item in many families. Even though it was still an expensive item, its availability brought people closer. Television also became a necessity in every household, and many were colour televisions. The daily news after dinner was a way people learned about what was happening in the world. All these phenomena are attributed to the economic reforms, when it became possible to make money and to buy things as one wished.

I still rarely saw my father, because he had to travel abroad or out of town. My mother said he had to give lectures to government administrators on urban building and sculptures. It was a period when making urban building and city sculptures was booming.

Because of my father's love for music, he brought back a Sony Stereo system, which had a CD-player—still a rare device at that time! As the CD was recorded digitally, it had better sound effect than audio-cassette, so we could better enjoy the music we liked. In fact, I had not heard before any music I enjoyed. From then on, I

discovered music such as *Carmen* and *Swan Lake* with my father. I did not like the sound of the violin, but I enjoyed listening to the clarinet, I was mesmerised by a concerto played with clarinet and cello.

After 1985, my father gave me two CDs that foreign friends of his had given to him; he thought they were good, but were not his style. One was by Madonna and the other by Michael Jackson. I must admit that I was shocked discovering that music can sound like that! I began to look for that kind of music, it was not easy, I re-taped from others, but what was available was rather limited.

At the end of the 1980s, I began to learn rock n' roll, but any material was difficult to find, and even teachers at the music conservatory were unfamiliar with that genre. Any foreign material on the subject was valuable, and it was copied until the text was illegible.

In 1988, I decided to study art. The decision was partially due to the new era, which opened up new ways of seeing myself and what I could do. The affiliated high school of the Central Academy of Fine Art taught classical art; it is still the best art school in the country, and also the most difficult to be enrolled at. It was one of the few high schools in the country that opened up its admission nationwide; it was a lot more competitive than other schools.

Chinese students are under greater pressure than most Western students. I had to get up at 7 in the morning to go to school, and came home at 5 in the evening. The first thing I had to do was to draw 30 sketches, and then quickly have dinner, then draw another 4 h of sketches, then quickly finish all my homework, sleep for 6 h, then the day was completed. On the weekend, I had to paint a gouache. This kind of training went on for 3 months, repeatedly, over 90 days. Eventually, I was lucky to pass the exam. This was due to the right training methods: my father trained me in sketches—he is an acclaimed sculptor in China, who studied in the former Soviet-Union—; and Mrs. Pang Tao, a master in colours in China, a friend of my parents, helped me with colours. They were all professors of the Central Academy of Fine Art.

For artists, catalogues are important, and luckily, I have been able to see many of them with my parents. However, for a regular Chinese family, at that time, the art catalogues were extremely rare, since 2–3 months salary of both parents may only be sufficient to buy one art catalogue. In the present digital era, even though very expensive catalogues still exist, we can use our mobile phone to look at the best art works in the world. This was not possible at that time.

Compared with other countries, China was a country with limited pedagogical resources. Still now, there is a significant disparity between the city and the countryside. Going to school and finding a job in a city can change the fate of the entire family. Thus, from the 1980s, competition in pedagogical resources became fierce, and even mad. The digital era blurred the boundary of intellectual fields. In the past, it was difficult to gain knowledge about other fields than those you were involved into. Vice versa, now, all you have to do is to use a search engine on the Internet to find relevant materials, which you can make up to in a few minutes.

4 The 1990s: "Discovering a New World, Mad About 'Digital'"

The Internet arrived. In the mid 1990s, the Internet came to China. It was in 1996 that people started to use the Internet for personal use, but it was only between 1998 and the 2000 that the Internet started to be widely used outside the work place. During the 1990s, computers had not yet entered into people's home, and only a small number of professionals were using them. Most of the servers were located outside of China, bandwidth was limited, and speed really low. Nevertheless, it was another portal to the world. We began to retrieve knowledge from the world freely, and to establish a dialogue with the rest of the world. If the 1980s economic reforms opened the door to a new economy, then the Internet in the 1990s opened the door to new information. The rapid rise of the Internet, and the birth of Chinese websites, created the conditions for every urban family to have a computer and a telephone dial-up. The explosion of the information era arrived: people started to use email to communicate, read news on webpages, chat on social network software, play Internet games, etc. In just a few years, the Internet changed the way of life, especially for the young generation, and our distance from the rest of the world became shorter.

At the beginning of the 1990s, I was enrolled at the Central Academy of Fine Art and began to study sculpture. At the time, the computer was a hot topic, and my curiosity propelled me to learn. In those years, the computer had not yet entered private homes; it was used only by professionals and technology experts. As a student of an art academy, it seemed unreachable for me. It was because my uncle was a computer engineer, that I had the opportunity to come in contact with computers, and learned how to use them—my family resources helped me again. A lot of my creative proposals were developed on the computer, taking 3–5 days to complete jobs that nowadays take only 3–5 h.

Virtual and interactive technologies started to become popular, most typically, through computer games. Computer games were something that did not exist in my childhood, and it was only in the 1990s that I began to play games on the computer. The games provided a virtual environment, where I could do things beyond my actual real life, such as to pilot the airplane and learn, for example, how to use the gauges to take off and land, use weapons, radar, etc. At the same time, it was also a way to acquire knowledge on geography. After the year 2000, competitive games became more developed, requiring gamers to develop more accurate operational skills, perfect team collaboration, logical strategies. International competitions became widely popular, e.g. e-sport. I discovered that by playing a game that applies virtual and interactive characteristics of digital technology, one learns and nurtures various abilities through entertainment. The negative aspect was that many players became addicted and took refuge in their 'virtual lives', missing out on having a role in their real lives. For instance, they felt that by such gaming they could have a sense of achievement, have power, have relationships, say whatever they wanted. In the end, these people drifted farther and farther away from reality.

From the late 1980s, I spent a lot of time learning music and playing guitar, and organised many bands in high school and university, but I finally stopped in 1994. The 1990s was a nervous and restless era, everyone was busy making money, looking for a way out to change their lives. It was an era of opportunities, and it was difficult to find people with the same desire in creating music I was interested in. While computers can make digital recordings, and it is possible to edit the piece through various software, it was very difficult to organise live performances. But, at least, thanks to the digital, I was able to make music, and the work that had to be done previously with a team, was now possible to be completed autonomously. However, where musical composition becomes more personal, the work becomes quite lonely. What could have been created, previously, through spontaneity and interaction, with the digital it changed, and the creative input of the team was lost. Under the commercial drive, many successful bands signed up with music production companies. Many of those were individual contracts where the members of the band could be replaced at any time, and the instrument players were, in the better circumstances, only workers doing their jobs, with a lack of creativity. In this case, musicians had their survival conditions worsened; they were only called on to work for recording and performances, but were not involved in the creative processes. In the fast food style cultural era, with the help of digital technology, the making of pop music became especially easy. I have a friend who was a composer of pop music; now he often works with software to compose at home, moving back and forth a few parts enabling him to rapidly finish a few songs. This is commercial output, and there are countless customers in China, so products like this still have an enormous market.

In the summer of 1997, a British art school came to give lectures in China. Many lectures were on multi-media art. They introduced artworks completed on the computer by using digital technology. There was one work where the viewer could click on the various rooms in student dorms or offices with a mouse to see what is taking place in these spaces. With interactivity, the viewer may enter the art work through his/her own understanding and viewing habits. Various ways of viewing give different outcomes, digital technology is providing new methods for artistic expression.

Based on the interactive element, the digitally rendered work of art has also broken down our linear way of understanding time, as well as the elements of the 2D painting and space. It provides more creative possibilities so that the virtual space expands our space for thinking how sound, light, and electricity may be integrated into one. It was then that I was deeply mesmerised.

My focus at the University was on sculpture, while I also studied digital imaging and 3D. In fact, personal computing did not yet have the cutting edge technology in multi-media. In the 1990s most people were dilettante and were just beginning to learn about graphic design, advertisement, animation and, later on, attempts in making digital music.

5 The 2000s: "The Self Has Been Changed by the Digital, One Cannot Live Without Electricity"

The real digital era is imminent. As the new century dawned, I realised could no longer live without a computer. I could no longer write with a pen and paper, my drawings are done on the computer, and the materials for ideas are 'digital', which included videos, soundtracks, interaction, uploading, spreadsheets, programs, and annotations.

The way I thought was different from that of the people around me—often I wish I could just press CTRL+Z key. My curiosity towards the outside world became less, even new digital methods and novelties were not as appealing as they had been, and the necessity to reflect became more urgent.

Around the year 2000, digital technology rushed into traditional media, such as photography. Once expensive products, photographs became digital files. One day I suddenly realised I no longer cared about my photo album, and it was left in the corner to gather dust. Everything could be seen on the screen, and I bade farewell to my regular photo processing shop, replaced now by digital printing. Photography habits also changed from the analogue era: previously it was necessary to set the camera up to perfection and find a sufficiently perfect moment to press on the shutter, and almost every composition was excellent. In the digital era, with zero cost for post-production, I became almost careless about composition, because images can be edited after they are taken. Neither do I care too much about how to set up the image properly, I could take a shot with every shutter speed and focal length, thinking that I can look at them afterwards. The 'digital' made my photography habit rusty. At the same time, in the past there were only a few people who had cameras because they really loved photography; now, everyone has a digital camera, can take photographs, and use various fool-proof software for post touch up. What was highly technical, became common usage, the era of 'everyone is a photographer' is here.

Free access and information sharing are the basic concepts of the Internet. With the Internet, I rarely go to the bookstore anymore, because the amount of information available online allows me to learn whatever I want.

The Internet changed not only the path by which we acquire knowledge; the impact of the Internet on artistic consumption is also revolutionary. This is the case for music, for example. We can listen to music for free, and a very vast amount of information is accessible without borders. Popularisation of music is also a benefit brought forth by the digital age. Availability of rich and free resources allows more people, including the impoverished ones, to enjoy musical culture. What is surely worth celebrating is that music from all corners of the world is brought to our finger tips. Many Chinese of my generation were not be able to enjoy a live concert, nor did they had the financial means to learn music or buy CDs. With the beginning of the digital era, these people may buy an inexpensive computer, enjoy music from around the world, and use the computer and the Internet to learn music. All this was

unimaginable before. At the same time a more negative aspect is that many musical companies have been forced to transform because musicians could no longer make money through launching records, they had to do tours to support their livelihood. The low entrance standard broadened the scale of popular music, but also altered its value due to the demand for entertainment that imposed the fast-food model of popular music. In this vicious cycle, music became cheaper and cheaper and lower in quality.

6 The 2010s: “Realizing I am a Member of the World”

In recent years, with the popularisation of smart phones and the infrastructure of wifi, ‘digital’ living began to affect all aspects of our lives. Most Chinese own one or many digital portals, and China has formally entered the digital era, and the ‘digital’ is making drastic changes to society.

I live in Beijing, a densely populated city where it can be quite suffocating. Shopping at the supermarket is an unavoidable chore, although with the boom in Internet shopping in recent years, I almost do not have to go to the shops anymore. All daily necessities can be purchased online. I no longer need to be worry about pricing, because it is easy to compare prices around the world. Neither do I have to worry about traffic and expensive parking fees because I can plan my movements earlier online. And since e-vendors have lower costs for their physical premises, their prices are often cheaper than the shops. The low labour cost allowed logistics to develop, which also promised the development of e-business.

I often speak to many Chinese artists about the ideal of digital art. Most people think digital equipment is convenient; it offers the possibility to explore new forms of expression; and it serves the curiosity of getting out of technological blindspots. In my view, these are not forms of digital art. As one poet friend of mine says, “The one who is poetic at heart is a true poet.” Similarly, I think an artist should first be artistic “at heart”; then, when he/she thinks digitally, and uses a digital language, they can be a true digital artist. If you use a digital camera to imitate the effect of a film, I do not consider this digital art, because it does not consist of elements of digital language. Similarly, playing rock n’ roll with ‘overdrive’ timbre is the proper language of the electric guitar.

The language of digital art is what I am interested in. In order to apply this new artistic language, it is necessary to adopt a digital way of thinking, and I believe that, in this way, many artists like myself are exploring digital art.

7 Contribution to Traditional Art in the Digital Era

What Chinese culture refer to as ‘culture’ is not necessarily the concept we translate from the West, but includes ‘language and education’. For this reason, we appreciate digital technology and the resources made available on the Internet, because they provide an opportunity for many persons to learn about cultural heritage.

Moreover, it is the explosion of information through digital means that has allowed many people to have 'crash courses' in a short period of time and to quickly retrieve information on the traditional Chinese civilisation that has previously been overlooked.

For example, in August 2013, a netizen recorded the collapse of Longtian Temple at Xilianghe village in Shaanxi Province, and uploaded it on Weibo. In June 2014, the official Weibo account of China Daily reposted this video calling for a social response. Subsequently, the *China Daily* newspaper featured a special report calling on the protection of cultural heritage. In January 2015, the formal restoration project was launched, and by the end of the year, the project is planned to be completed.

There is much cultural heritage that is unknown to the public, like the Longtian Temple, housing valuable ancient murals, architecture and sculptures. In past years, these historical relics were not protected or studied. Digital technologies have provided convenient and multi-media platforms of communication that call the attention of the society and the government to protecting cultural heritage. Also, digital technologies can be used to supervise the progress of restoration of cultural heritage, so that valuable cultural relics may be better protected and the general population may gain knowledge of these art works.

In China, with the prosperity associated with its economic development, culture is gradually receiving more attention and more resources are allocated to cultural programmes. The 2014 governmental budget increased spending on supporting the protection of cultural relics in order to propagate the legacy of Chinese culture and tradition. According to data published in the newspapers, the central administration has allotted 88.43 billion RMB in 2014, which was 11.1 billion RMB more than 2013—a 14.35 % increase. The fund for cultural relics protection is primarily used for important national heritage, national immaterial cultural heritage, and the projection plan for national antique books and associated archival projects.

8 Conclusion

Looking at the other chapters of this book, it becomes evident that Europe is deeply interested in researching the relationship between digital technology and cultural heritage over a longer time frame, while China has just begun. Museums and libraries are still working on building basic database structures and have started recently to develop a digital diffusion of culture. There is a gap between Europe and China, but in more recent years, the Chinese government is investing more and more in this area, and Chinese cultural and academic institutions are very active in the sector.

From the 1990s, China's digital and communication technologies developed very fast, and they are now almost synchronised with the rest of the world. Network

and virtual technologies influenced China as they did the rest of the world, and since the start of the twenty-first century, China has entered the process of globalisation, and this applies also to digital technologies.

Further, digital technologies have allowed a stronger impact and fusion with foreign cultures, letting multicultural experiences develop again in China. It has led to a profound impact on the society and on individual people's values, lifestyles, and social structure—everything is changing. I quite agree with many experts, who argue that building a global unified Internet management and specification is becoming a priority, not only for the sciences but for the arts too.

Digital technology has brought the development of the concept of 'multiculture', and as a Chinese artist, I have an open mind, different perspectives from before and the possibility to communicate with the world. *Heteromorphic Space* series (Figs. 1, 2, 3) is my recent work. I developed this idea by applying the language of digital 3D technology. I used virtual material as an artistic material. I researched it and then moulded in the virtual and then created it in the physical. Comparing the virtual material with the real, I developed a different understanding of shapes, and found a new artistic language. This series of works fully reflects the fact that the digital technology influences thinking and perception. I used the concept of digital elements, such as average, quantification, virtual realism, the dynamic, visual rationalisation, and symbolism. Finally, in these works, I expound and discuss the differences between human subjective thinking and the objective world that occurs with digital elements. *Heteromorphic Space* is a testimony of the new possibilities opened by the digital to artistic research.

What has the 'digital' contributed to China? In addition to opening new perspectives to digital art, I think that the most important impact of the digital on the society derives from its openness and its way of disseminating education among the public. Knowledge became accessible more quickly and easily to everybody, and this satisfied most people's desire for culture, improving the level of education. Opening up people's ways of thinking challenged the status quo and resulted in positive side effects in the whole society. This includes: how the protection and preservation of heritage through digital means increased the public's interest in traditional culture; how maximisation and explosion of information decreased people's more simplistic curiosity, giving space to enter into a phase of reflection, and a return to Eastern way of thinking. Live interaction and virtual communication has broken down the spatial distance and the confines of class, even generating influence on the political realm; globalisation of culture, and a return of self-consciousness, moving from obtuse points of view to reflection. It has progressed our thinking. We are living in an era where Eastern culture cannot be any more marginalised, and the 'digital' allows Chinese culture to have a new role in our life, in China and abroad.



Fig. 1 Standing, 2014, 40 cm, cupronickel, (Photo: Yang Chao)

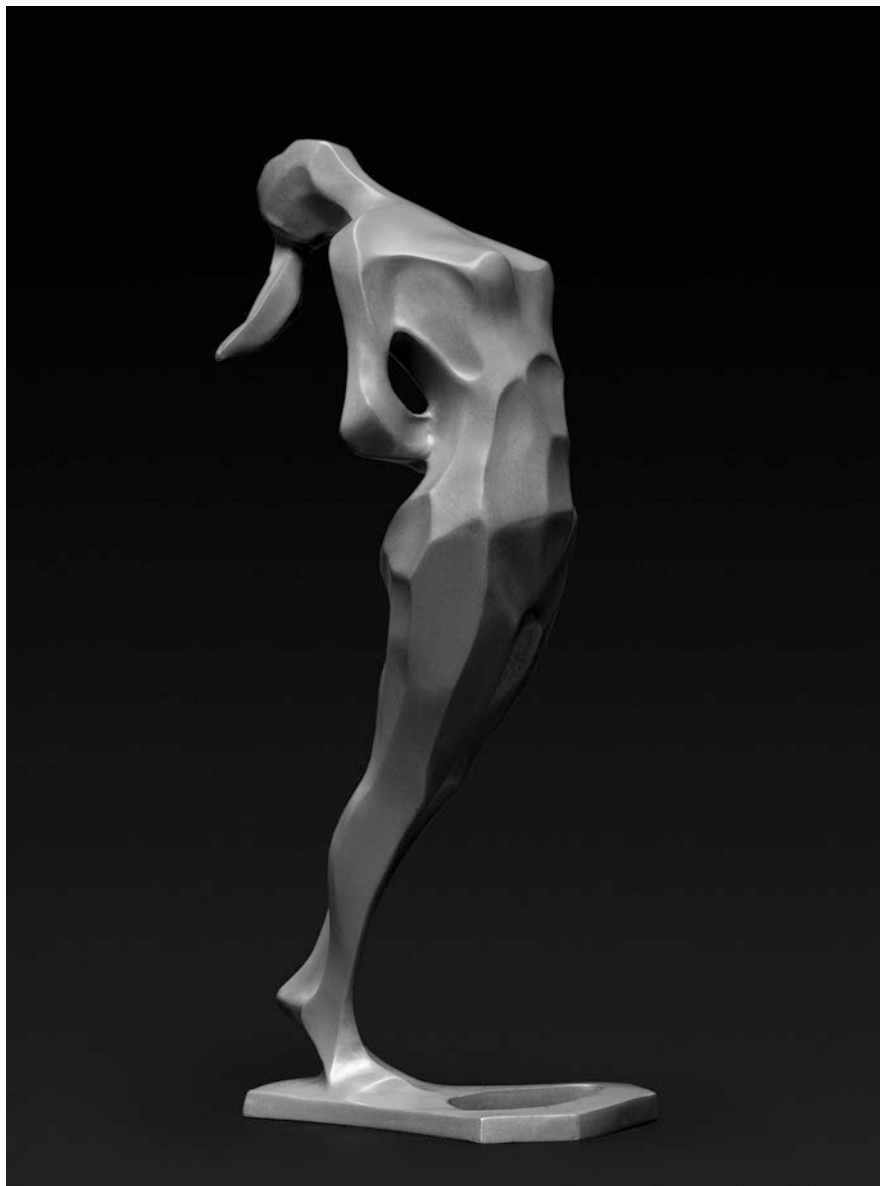


Fig. 2 Opening, 2014, 40 cm, cupronickel, (Photo: Yang Chao)



Fig. 3 Walking, 2014, 40 cm, cupronickel, (Photo: Yang Chao)

Acknowledgment The author gratefully acknowledges comments made by Elisa Debernardi and May Pettigrew on a draft of this chapter.

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Erratum to: The Spanish Republican Exile: Identity, Belonging and Memory in the Digital World

Lidia Bocanegra Barbecho and Maurizio Toscano

Erratum to:

K.J. Borowiecki et al. (eds.), *Cultural Heritage in a Changing World*
DOI [10.1007/978-3-319-29544-2_14](https://doi.org/10.1007/978-3-319-29544-2_14), © The Author(s) 2016

The affiliation of the author Maurizio Toscano has been incorrectly captured in Page 237 and the correct affiliation is as follows:

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DOI [10.1007/978-3-319-29544-2_14](https://doi.org/10.1007/978-3-319-29544-2_14)

Appendix A: RICHES Project and Resources

1 Introduction

RICHES¹ is a research project funded by the European Commission under the Seventh Framework Programme.

The project started in December 2013 and runs until May 2016, developing a wide range of research, policy advocacy and communication activities.

The general scope of RICHES is to recalibrate relationships, bringing together Cultural Heritage (CH) and people together in a changing Europe and finding new ways of engaging with heritage in a digital world.

All the activities carried out in the project to fulfil these objectives produced a series of outcomes, which can be classified in the following two main areas:

- Resources related to Research

These include: scientific publications; co-creation practices and toolkits; the RICHES taxonomy; an interactive showcase presenting case studies related to digital heritage mediated by libraries and museums; examples of virtual performances; data and statistics.

- Resources related to Policies

These include: policy reports and recommendations to support the development of new policy for enhancing CH; foresight studies to support the development of strategic agendas and joint programming in Europe; reports of the Policy Seminars organised by the project; information about the networking activities and how to join the RICHES network; list of useful links to European, National and International policies on CH.

¹ <http://www.riches-project.eu>

In order to make available these results to the broader public, the RICHES Resources website² was designed and developed.

This Appendix provides an overview of the RICHES project and its Resources website.

2 The RICHES Project

RICHES is the acronym of Renewal, innovation & Change: Heritage and European Society. It is a research project about change; about the decentring of culture and cultural heritage away from institutional structures towards the individual; about the questions which the advent of digital technologies is posing in relations to how we understand, collect and make available Europe's CH.

Though enormously rich, Europe's CH is often locked away, or crumbling, or in a foreign language, or about a past which to many people seems of little relevance.

But this is changing.

As digital technologies now permeate all of society, compelling us to rethink how we do everything, we ask questions: how can CH (Cultural Heritage) institutions renew and remake themselves? How should an increasingly diverse society use our CH? How may the move from analogue to digital represent a shift from traditional hierarchies of CH to more fluid, decentred practices? How, then, can the European citizen (alone or as part of a community) play a vital co-creative role? What are the limitations of new technologies in representing and promoting CH? How can CH become closer to its audiences of innovators, skilled makers, curators, artists and economic actors? How can CH be a force in the new European economy?

RICHES research looks for answers to these questions by drawing together experts from cultural institutions, public and national administrations, SMEs, the humanities and social sciences.

Its interdisciplinary team research the context of change in which European CH is transmitted, its implications for future CH practices and the frameworks (cultural, legal, financial, educational and technical) to be put in place for the benefit of all audiences and communities in the digital age.

The RICHES research programme is articulated around two main goals:

- to understand how the whole value chain of CH is influenced by the digital change, from curation and preservation, to access and participation to cultural events and transmission to next generations;
- to shorten the distance between people and CH exploring co-creation processes, involvement of the media and participatory practices.

² <http://resources.riches-project.eu>

The main means of ensuring that the RICHES outputs achieve maximum impact is for the project to generate wide general knowledge of all the resources developed by the partners. The RICHES Resources website illustrated in the following sections targets in fact this purpose. RICHES impacts will be principally:

- **Social impact**
Digital media offer the potential to challenge the ‘democratic deficit’ that exists between producers/curators and consumers/users of CH, encouraging users to engage in their cultural heritage.
- **Economic impact**
The models of skill and technology-transfer developed through the project will influence production methods and capabilities in the two identified sectors of fashion and product design, having wider application in many other sectors, such as heritage institutions, cultural tourism, cultural industries, SMEs and the wider creative industries.
- **Cultural impact**
A special focus of RICHES is on performance-based CH as a kind of heritage able to stimulate innovative interactions with cultural audiences, offering models to be adapted and re-used for other CH domains.
- **Educational impact**
RICHES will influence educational processes by offering novel learning opportunities for users and, through the co-creation work undertaken by the partners, tools for the creation of user-generated learning objects, thereby providing resources for teachers and learners.
- **Technological impact**
RICHES will create the conditions for a truly user-driven technological research pull, as opposed to the technology push that has so often characterised past initiatives.

3 Research Focus

The RICHES work plan has eight work-packages, six of which are research oriented. It involves iterative processes of research and review. Its strategy established mechanisms to ensure that its wide-ranging multidisciplinary research remains closely harnessed to the project’s main aims.

The research focus has been articulated around the following areas of investigation:

- **The move from analogue to digital and new forms of Intellectual Property**
This research developed a framework of understanding of copyright and Intellectual Property Rights laws as they relate to CH practice in the digital age.
- **The context of change in which CH is held, preserved, curated and accessed**
This research developed a better understanding how digital practices are transforming the traditional CH practices of cultural

- Mediated and unmediated heritage.

This research gained further understanding of the relationship between ‘living’ or contemporary media and what is formally considered to be CH.
- Context of change in which performance-based CH is made

This research explored especially dance and body-based performance Practices, with particular regard to the case of virtual performances.
- Transformation of physical spaces, places and territories

This research evaluated how transformation is impacting upon the relationship among administrators, citizens, civil society and economic sector and how digital communications are supporting dialogues and exchanges.
- Skills and jobs

This research investigated the new contexts in which traditional skills and knowledge can be transferred into advanced manufacturing sectors through the use of digital technologies and exploring how old skills within new contexts can generate competitive advantage for the European creative industries
- Digital CH practices for identity and belonging

The research developed a better understanding of the consequences of the introduction of new digital practices in the CH domain with particular regard to their impact on issues of identity and belonging among the EU citizens.
- Co-creation and living heritage for social cohesion

This research explored what we can learn and how we can apply co-creation methods, with special attention given to their use in the media and the museums.
- Structures for community and territorial cohesion

This research considered how rural and urban places can be connected by networks of multiple dimensions, what is the role of digital technologies in facilitating these connections and what are the benefits of this digital form of CH transmission.
- CH and places

The research studied place making, promotion and commodification of CH resources. It has been centred upon public administrations adapting landscapes and monuments and re-using historical buildings to generate sustainable models to improve the quality of life and foster cultural tourism. Four case studies were developed: Monastery of the Holy Cross in Rostock, Germany, the Hamamonou district in Ankara, Turkey, the Empuries site in Spain; the Palazzo Pretorio in Pontedera, Tuscany, Italy.
- Economics of culture and fiscal issues.

The research provided an economic analysis of the impact of taxation and public-private support on CH and an improved understanding of the geography of cultural activities and ways in which fiscal policy can become more efficient in the age of digitisation.
- Innovation and experimentation in the Digital Economy

The research investigated how the use of digital technologies can transform the ways in which we understand our CH, the ways that we engage with and alter it and how we communicate and participate within it.
- Museums and libraries in the digital age

The research investigated the adoption of digitisation and digital services for preservation, access and transmission. Particular attention was given to users of these services in terms of needs, expectations and requested skills.

- **Public-Private-Partnership**

The research explored how public-private initiatives can support CH reuse, exploitation and transmission of digital CH, producing a practical report for the use of stakeholders who are approaching new initiatives based on public-private partnerships.

4 RICHES Partners

The consortium membership has been carefully selected in order to achieve a truly interdisciplinary balance of scientific expertise and research excellence across a range of academic social science and humanities disciplines, of relevant professional knowledge, skills and practices and of geographic location. The partnership includes experts from cultural institutions, public and national administrations, SMEs, the humanities and social sciences.

The project brings together ten partners from six EU countries—Denmark, Germany, Italy, the Netherlands, Spain, the UK—and one associate country, Turkey. These countries represent a wide range of organisations and their countries offer a spectrum of different national policies and programmes for CH.

Alongside the balance of national and regional dimensions, the range of necessary research disciplines has been considered. Major established academic research institutions are engaged in the RICHES project from Socio-economic Sciences and Humanities and arts disciplines including: history, human geography, sociology, law, economics, digital archiving, crafts and design, dance and performance.

In order to enhance its pan-European dimension and given the highly-focused nature of its research, RICHES enlarged its network, establishing and nurturing a sustainable Network of Common Interest, consisting of experts and researchers in the relevant fields coming from outside of the RICHES partnership.

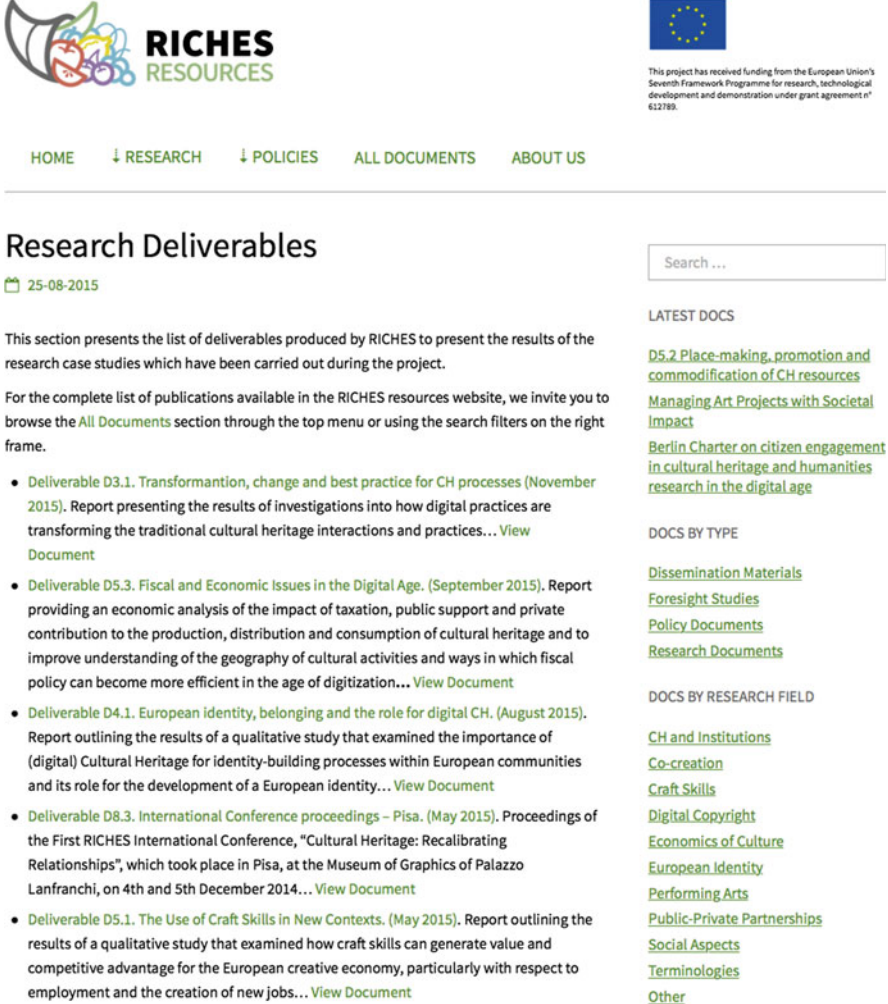
The Network participates in project activities on a voluntary basis, supporting the research of RICHES both during the project and after its conclusion. Its members share experience, promote standards and guidelines, seek harmonisation of best practice and policy, participate in questionnaires and surveys and act as a conduit for knowledge transfer from the project to policy makers, programme owners, cultural institutions, research organisations, civil society and private stakeholders.

5 The RICHES Resources Website: Research Section

The Research section of the RICHES resources website provides users with a series of useful tools and materials that relate to the research topics studied and analysed in the RICHES project, namely: terminologies; copyright issues; performance-based CH; structures for social and territorial cohesion, European identity, belonging and minority communities; food and CH; co-creation practices; CH and institutions;

place-making, promotion and commodification of CH resources; the use of craft skills in new contexts; economics of culture and fiscal issues; and much more.

This section includes the list of deliverables produced by research work packages of RICHES. Each deliverable is available to be downloaded under an Attribution 4.0 International (CC BY 4.0) Creative Commons license (Fig. 1).³



The screenshot shows the RICHES Resources website. At the top left is the RICHES RESOURCES logo, which consists of a stylized graphic of overlapping shapes in green, yellow, and red, followed by the text "RICHES RESOURCES". To the right of the logo is the European Union flag and a small text box stating: "This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement n° 612789". Below the logo and flag is a navigation menu with the following items: HOME, RESEARCH, POLICIES, ALL DOCUMENTS, and ABOUT US. The main heading is "Research Deliverables" with a date "25-08-2015" below it. The text below the heading reads: "This section presents the list of deliverables produced by RICHES to present the results of the research case studies which have been carried out during the project." and "For the complete list of publications available in the RICHES resources website, we invite you to browse the All Documents section through the top menu or using the search filters on the right frame." Below this is a list of four deliverables, each with a title, date, and a "View Document" link. On the right side of the page, there is a search bar and two sections: "LATEST DOCS" and "DOCS BY TYPE". The "LATEST DOCS" section lists four documents with titles like "D5.2 Place-making, promotion and commodification of CH resources" and "Managing Art Projects with Societal Impact". The "DOCS BY TYPE" section lists categories like "Dissemination Materials", "Foresight Studies", "Policy Documents", and "Research Documents". Below that, the "DOCS BY RESEARCH FIELD" section lists categories like "CH and Institutions", "Co-creation", "Craft Skills", "Digital Copyright", "Economics of Culture", "European Identity", "Performing Arts", "Public-Private Partnerships", "Social Aspects", "Terminologies", and "Other".

Fig. 1 Research deliverables section of the RICHES resources website

³ <http://creativecommons.org/licenses/by/4.0/>

Specific sub-sections are dedicated to present the results of two important case studies.

The first one is the case study on virtual performances. It investigated how dance and performance artists can interact with digital technologies to create new artefacts and events, and to develop new experiences which can coexist and complement traditional skills. The case study discusses how cultural expressions from the past can be reinvigorated and renewed with the benefit of leading edge digital technology, and how both artefacts and skills can be transmitted to society. The case study created also an interactive and distributed performance. Under the name of *Ultraorbism*, the performance became a live demonstration of how advanced conference systems, streaming media, networked and distributed environments can support creativity in the fields of scenic arts, especially theatre, dance and performance (Fig. 2).

The second case study focused on co-creation cultural practices. At its core, co-creation is about involving different parties (users, stakeholders) to create value jointly, e.g. during the ideation phase of a new product or service development. Through a series of steps, people are invited to contribute, evaluate, and refine ideas and concepts. A toolkit for living heritage and a series of best practices and guidelines have been developed and published in this section.

Also, a Data and Statistics section has been integrated in the Research section, providing a list of references to quantitative data (sources) on heritage and digitization.

Finally, the Research section of the RICHES Resources website includes two more sophisticated tools that have been developed in the project: the RICHES Taxonomy and the Interactive Showcase. The following paragraphs present more in details these two resources.



Fig. 2 Ultraorbism virtual performance

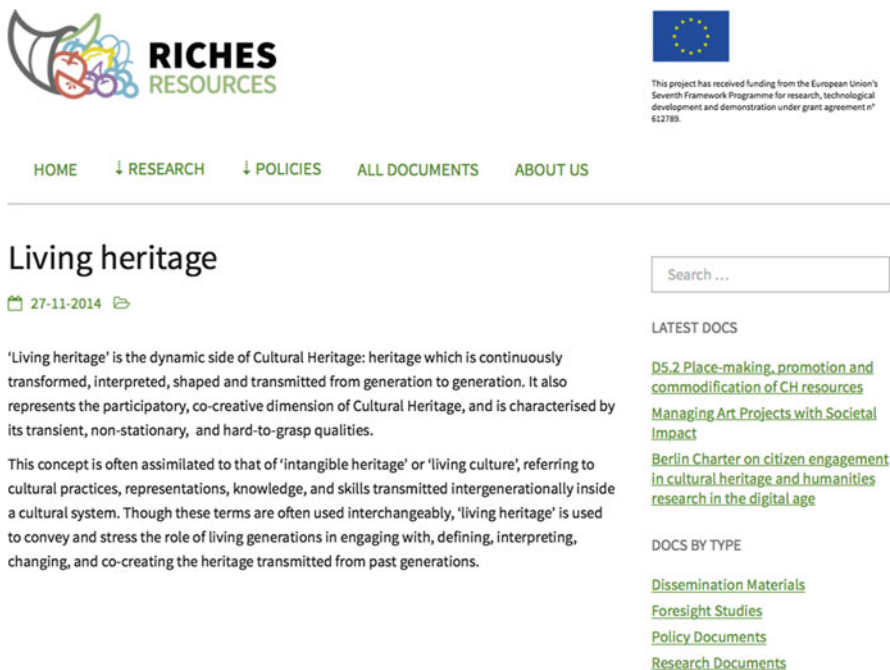
5.1 The RICHES Taxonomy

The RICHES Taxonomy (taken from the ancient Greek τάξις “order” and νόμος “rule, norm”) is a theoretical framework of interrelated terms and definitions, referring to the new emerging meanings of the digital era (such as “preservation”, “digital library”, “virtual performance” and “co-creation”), aimed at outlining the conceptual field of digital technologies applied to CH. Such Taxonomy constitutes the foundation of the project’s research work, by providing a common background and map that will guide the RICHES studies and underpin the development of further research activity.

Through its list of definitions and explanations—and in accordance with the Greek etymology of the word—the RICHES Taxonomy classifies and orders a wide range of concepts in categories of terms.

The RICHES Taxonomy is an open critical space allowing users to explore content and make suggestions of new terms or commendations on specific definitions, bringing new dimensions and points of view into the existing ones (Fig. 3).

The Taxonomy includes currently around a hundred alphabetically ordered terms, it has been developed through the shared work of the project consortium,



The screenshot shows the RICHES website interface. At the top left is the RICHES RESOURCES logo, which consists of a stylized globe made of colorful lines and the text 'RICHES RESOURCES'. To the right is the European Union flag and a text box stating: 'This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement n° 612789.' Below the logo and flag is a navigation menu with the following items: HOME, ↓ RESEARCH, ↓ POLICIES, ALL DOCUMENTS, and ABOUT US. The main content area is titled 'Living heritage' and includes a date '27-11-2014' with a calendar icon and an envelope icon. The text describes 'Living heritage' as the dynamic side of Cultural Heritage, which is continuously transformed, interpreted, shaped, and transmitted from generation to generation. It also represents the participatory, co-creative dimension of Cultural Heritage, and is characterised by its transient, non-stationary, and hard-to-grasp qualities. Below this text, it explains that this concept is often assimilated to that of 'intangible heritage' or 'living culture', referring to cultural practices, representations, knowledge, and skills transmitted intergenerationally inside a cultural system. The text concludes by stating that these terms are often used interchangeably, 'living heritage' is used to convey and stress the role of living generations in engaging with, defining, interpreting, changing, and co-creating the heritage transmitted from past generations. On the right side of the page, there is a search bar with the text 'Search ...'. Below the search bar, there is a section titled 'LATEST DOCS' with a list of document titles: 'D5.2 Place-making, promotion and commodification of CH resources', 'Managing Art Projects with Societal Impact', and 'Berlin Charter on citizen engagement in cultural heritage and humanities research in the digital age'. Below this list, there is a section titled 'DOCS BY TYPE' with a list of document types: 'Dissemination Materials', 'Foresight Studies', 'Policy Documents', and 'Research Documents'.

Fig. 3 Example of term in the RICHES taxonomy

the contribution of the people participating in the first RICHES workshop (Barcelona, 13 May 2014) and the revision of an editorial team constituted by several consortium members. It will be constantly updated and improved, with the help of the RICHES Network of Common Interest and the other visitors to the RICHES website. Any interested user can contribute by suggesting a new term or a revision of an existing definition.

The Appendix B of this volume provide a full list of the terms included in the December 2015 version of the Taxonomy.

5.2 The RICHES Interactive Showcase

One of the research tasks of the RICHES project is devoted to the analysis of the status of digital heritage mediated by memory institutions, such as libraries and museums, investigating how digital technologies are transforming the ways in which cultural institutions mediate cultural content and interact with their audiences.

The first research strand of this task analysed cases of re-use of cultural content aggregated in digital libraries for the creation of specific applications, i.e. digital collections and digital exhibitions, with the aim of evaluate the potential of museum and library online information systems to stimulate interaction with their intended audiences and increase their engagement with digital cultural content.

The second research strand focused on museums as places for education and learning and on their role in lifelong learning society. It explored the ways in which museums can contribute in increasing access to cultural life and fostering social cohesion, innovation and creativity, by integrating collections, spaces and learning programmes into a new joined-up framework which connects formal and informal learning providers.

As a result of this analysis, a number of innovative services and best practices have been identified and published in the RICHES Interactive Showcase (Fig. 4).

This showcase is an online interactive space where potentially interested users can contribute to the case study research providing feedback or suggesting new examples of best practices to be taken into account. It is organised in three main areas:

- A description of the background and of the research that led to the identification of the services that are showcased.
- A filterable lists of examples and best practices which have been collected so far, each one with a specific record page containing some basic information, an image gallery and the link to the online resource.
- A form where it is possible for any interested user to suggest new innovative services that are worth to be added to the showcase.



This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement n° 612789.







- HOME
- ↓ RESEARCH
- ↓ POLICIES
- ALL DOCUMENTS
- ABOUT US

Explore the Showcase

📅 21-10-2015

Here below is the list of examples and best practices which have been collected so far. It is possible to filter the list by clicking on one of the keywords on the top. The examples labelled with "RICHES case study" have been analysed in the research study carried out in the project, those labelled with "external suggestion" have been suggested by people outside the RICHES consortium. RICHES does not endorse their content in any way.

- All
- digital
- digital storytelling
- RICHES case study
- external suggestion
- digital collection
- digital exhibition
- digital library

<p>SMB-digital</p>  <p>Read More View Project</p>	<p>Fine Arts System</p>  <p>Read More View Project</p>	<p>Deutsche Digitale Bibliothe...</p>  <p>Read More View Project</p>
<p>Sinti - Roma</p>  <p>Read More View Project</p>	<p>Time Machine, a digital stor...</p>  <p>Read More</p>	<p>Staedel Museum, Digital Co...</p>  <p>Read More View Project</p>

LATEST DOCS

- [D5.2 Place-making, promotion and commodification of CH resources](#)
- [Managing Art Projects with Societal Impact](#)
- [Berlin Charter on citizen engagement in cultural heritage and humanities research in the digital age](#)

DOCS BY TYPE

- [Dissemination Materials](#)
- [Foresight Studies](#)
- [Policy Documents](#)
- [Research Documents](#)

DOCS BY RESEARCH FIELD

- [CH and Institutions](#)
- [Co-creation](#)
- [Craft Skills](#)
- [Digital Copyright](#)
- [Economics of Culture](#)
- [European Identity](#)
- [Performing Arts](#)
- [Public-Private Partnerships](#)
- [Social Aspects](#)
- [Terminologies](#)
- [Other](#)

POPULAR TAGS

Assignment of copyright Belonging Co-

Fig. 4 RICHES interactive showcase

6 The RICHES Resources Website: Policy Section

The Policy section of the RICHES Resources website provides users with evidence-based reports, recommendations and guidelines into which the main research outputs produced by the RICHES project are distilled. This includes policy reports and recommendations, advisory and advocacy papers, foresight studies, and other materials that have been produced for use by policy-makers, national agencies and CH practitioners.

Users can find in this section a list of references to relevant EU Policies in the field of CH as well as the list of policy briefs produced by the RICHES project. These practical resources are intended to provide support and advice to decision-makers at all levels, including policy makers, programme owners, cultural managers, public administrators and private entrepreneurs (Fig. 5).



RICHES RESOURCES

HOME ↓ RESEARCH ↓ POLICIES ALL DOCUMENTS ABOUT US

Policy Briefs

📅 25-09-2015

This page contains the list of policy briefs produced by RICHES to provide support and advice to decision-makers at all levels, including policy makers, programme owners, cultural managers, public administrators and private entrepreneurs.

For the complete list of publications available in the RICHES resources website, we invite you to browse the [All Documents](#) section through the top menu or using the search filters on the right frame.

- [European Policy Brief. Co-creation strategies: from incidental to transformative. \(August 2015\).](#) This policy brief gives a short overview of the potential benefits of co-creative methods in the CH sector, of the current practices and a number of suggestions to further stimulate co-creation in cultural heritage on a strategic level... [View Document](#)
- [European Policy Brief. RICHES Taxonomy of cultural heritage definitions. \(July 2015\).](#) This policy brief presents evidence and recommendations emerging from the research undertaken to develop the RICHES Taxonomy of terms, concepts and definitions... [View Document](#)
- [European Policy Brief. Digital Copyright Framework. The move from analogue to digital and new forms of IPR. \(June 2015\).](#) This policy brief describes how European policy-makers and European cultural heritage institutions should develop European copyright policies and strategies for the cultural heritage sector using the rights to culture and cultural rights as guiding principles... [View Document](#)

Search ...

LATEST DOCS

- [D5.2 Place-making, promotion and commodification of CH resources](#)
- [Managing Art Projects with Societal Impact](#)
- [Berlin Charter on citizen engagement in cultural heritage and humanities research in the digital age](#)

DOCS BY TYPE

- [Dissemination Materials](#)
- [Foresight Studies](#)
- [Policy Documents](#)
- [Research Documents](#)

DOCS BY RESEARCH FIELD

- [CH and Institutions](#)
- [Co-creation](#)
- [Craft Skills](#)
- [Digital Copyright](#)

Fig. 5 Policy briefs section of the RICHES resources website

A specific sub-section is dedicated to the Policy Seminars organised by RICHES in Brussels, in 2015 and 2016. The seminars comprise political updates by representatives from the European Parliament and the European Commission, the presentation of policy recommendations from the RICHES project and round table discussions involving major stakeholders. The seminars are informed by the Policy Briefs, reports and recommendations published by the project.

The first Policy Seminar, held in October 2015, focused on the following themes:

- The need to develop and to use a common taxonomy to enable a more profitable dialogue between stakeholders belonging to the different sectors involved in the CH research, namely academies, CH institutions, cultural and creative enterprises, public administrations, policy makers, etc.
- Innovation in copyright frameworks and open access to data and information.
- Co-creation practices that offer the CH sector innovative approaches to breaking down barriers.

A second Policy Seminar, planned to take place in May 2016 will be structured around the following themes:

- The use of craft skills in new contexts.
- Community-led developments and the role of local food movements.
- European identity, structures for social and territorial cohesion and minority communities.
- Fiscal and economic issues in the digital age.
- Digital libraries, collections, exhibitions and users: exploring the status of digital heritage mediated by memory institutions.

Finally, the Policy section of the RICHES Resource website contains a webpage that presents the networking activities carried out by RICHES. This area aims to provide information contributing to establish new, profitable collaborations and synergies with cultural institutions, public administrations, national and regional authorities, cultural and creative SMEs, humanities and social sciences research centers and other projects working in the CH sector.

A first networking session for EC projects was organised jointly with the first Policy Seminar. Partners from 13 EU-funded projects discussed about:

- The impact that CH projects are delivering, in order to identify opportunities to improve the effectiveness of their results.
- The knowledge about targeted communities, in order to discover similarities in approaches, gaps and omissions to be served jointly, framework conditions that help to determine the success or otherwise of project outcomes.
- The synergies and the potential for collaboration among projects.

A second networking session is planned in May 2016, in the framework of the second RICHES Policy Seminar.

7 Documental Repository

A documental repository has been integrated in the RICHES Resources website to store all the relevant documents that have been uploaded.

It is possible to browse the repository through the top menu or using the search filters on the right frame. The order by which the documents are displayed is the publication date, starting with the most recent one (Fig. 6).



The screenshot shows the RICHES Resources website interface. At the top left is the RICHES RESOURCES logo, and at the top right is the European Union flag with a text box stating: "This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement n° 612789." Below the logo is a navigation menu with links: HOME, RESEARCH, POLICIES, ALL DOCUMENTS, and ABOUT US. The main content area features the title "RICHES Think Paper 01. Copyright and Cultural Heritage: Developing a Vision for the Future" and a search bar. Below the title is a metadata section with icons for date (06-11-2015), location (Digital Copyright, Foresight Studies), and tags (Assignment of copyright, Copyright, Digital copyright, Intellectual Property Rights, Moral rights/Droit Moral). A table provides detailed metadata for the document. On the right side, there are two sections: "LATEST DOCS" with a list of document titles and "DOCS BY TYPE" with a list of document categories. At the bottom center, there is a "Download" button.

Title	Copyright and Cultural Heritage: Developing a Vision for the Future
Creator	RICHES Project
Contributor	-
Subject	Copyright and Cultural Heritage
Description	This Think Paper raises questions about the relationship between European cultural heritage and copyright in the light of the fundamental and disruptive changes brought about by new and emerging digital technologies and which promise profound transformation in the future. It advocates that a human rights approach should be taken to the use and re-use of our cultural heritage and that copyright should be used as a tool to support cultural rights.
Publisher	RICHES Project
Date	October 2015
Type	Report
Format	PDF, 486 Kb
Source	RICHES Think Paper Collection
Language	English
Rights Management	Attribution 4.0 International (CC BY 4.0) Creative Commons

Fig. 6 Document page in the RICHES resources website

Each document is provided with a set of descriptive metadata which follows the standard Dublin Core format.

The documents are also associated to one type and one or more research field and tag and tags.

The types of document are: Dissemination Materials, Foresight Studies, Policy Documents, Research Documents.

The research field are those addressed by RICHES, namely: CH and Institutions, Co-creation, Craft Skills, Digital Copyright, Economies of Culture, European Identity, Performing Arts, Public-Private Partnerships, Social Aspects, Terminologies.

The tags are keywords chosen from the list of terms that are included in the RICHES Taxonomy.

Types, research fields and tags provide users with additional filters to browse the RICHES Documental Repository.

www.digitalmeetsculture.net the official media partner.


The online magazine www.digitalmeetsculture.net is the official media partner of the RICHES project. In addition to publish news about the project, it hosts a permanent showcase, which provides in depth information on RICHES activities and results. The showcase is accessible via a dedicated banner in the home page of the magazine.

Digitalmeetsculture has a growing audience of c 25,000 visits a month from all over the world, offering a high profile review of innovative initiatives in the fields of digital preservation, digital art, digital humanities, creative industry, cloud computing, and intelligent services based on the re-use of open data.

The showcase of RICHES project on [digitalmeetsculture](http://digitalmeetsculture.net) is an effective instrument for the dissemination of research results, policy recommendations, guidelines and examples of best practice, as illustrated in the following Fig. 7.


Friday, 25 March 2016

WEBSITE RICHES RESOURCES PROJECT PARTNERS RESEARCH FIELDS ACTIVITIES OUTCOMES NETWORK CONTACTS





RICHES
RENEWAL, INNOVATION AND CHANGE
HERITAGE AND EUROPEAN SOCIETY



BLOG HOME
RESERVED AREA

Username:

Password:

MEDIA PARTNER

DIGITAL CULTURE

RELEVANT NEWS from Digitalmeetsculture

Madrid, 22-24 June 2016

E-Learning 2016: New Strategies and Trends / Call for papers deadline 31/3/2016

Coventry (UK), 4 March 2016 - Digital Echoes Symposium 2016


(Re)Collecting the Past: (Re)Making the Future

Rode

The reliquary of Herman Rode, preserved in Nijmegen Museum in IJssel, is the focus of a educational demonstrator developed by Estonian Ministry of Culture

Young Art Detectives – students engagement with the Rode Altarpiece Demonstrator


PRESENTATION OF THE PROJECT



RICHES – Renewal, innovation & Change: Heritage and European Society

RICHES (Renewal, innovation & Change: Heritage and European Society) is a research project about change: about the decentring of culture and cultural heritage away from institutional structures towards the individual and about the questions which the advent of digital technologies is posing in relation to how we understand, collect and make available Europe's cultural heritage (CH). [Continue reading -->](#)


IN FOCUS



Brussels, 8 April 2016

EC Workshop on CULTURES & CITIZENSHIP: RESEARCH & INNOVATION

Friday, 8 April 2016, 9.00-16.00 Brussels, Covent Garden, 9th floor, room 183 (COV2 9.0183) 16, Place Charles Rogier, BE-1210 Brussels This workshop will gather projects on Social Sciences and Humanities that focus on different aspects of cultures and citizenship. Agenda ... [Continue reading -->](#)



Brussels, 23 May 2016

New Horizons for Cultural Heritage

"New Horizons for Cultural Heritage – Recalibrating relationships: bringing cultural heritage and people together in a changing Europe" is the Second Policy Seminar organised by the RICHES project to discuss how the project can provide insights to support evidence-based policymaking in Europe. The seminar comprises political updates by representatives from the European Parliament and the European Commission, the presentation of policy recommendations from the RICHES project and Round Table / World café style discussions aimed at providing 'joined-up' policy recommendations to be used in the definition of the H2020 work programme for 2018-2020. [Continue reading -->](#)

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Project website: www.riches-project.eu


COORDINATOR



Coventry University


COMMUNICATION MANAGER


PROMPTER

PARTNERS


HANSESTADT ROSTOCK


RESEARCH CENTER FOR MATERIAL CULTURE



RICHES
RENEWAL, INNOVATION AND CHANGE
HERITAGE AND EUROPEAN SOCIETY

Fig. 7 RICHES showcase on digitalmeetsculture

Appendix B: The RICHES Taxonomy

1 Introduction

The advent of digital technologies has brought new creative practices and transformed the Cultural Heritage (CH)'s traditional methods of preservation and promotion. As institutions, curators, researchers and artists are rethinking and remaking themselves, shifting from traditional to renewed practices, also using new technologies and digital facilities, new meanings associated with terms such as “preservation”, “digital library”, “virtual performance” emerge every day. A variety of definitions of CH-related concepts are shared and used interchangeably, making difficult the tasks of research and knowledge sharing. How we re-think and explain this new terminology is one of RICHES' main objectives, contributing to a better understanding of how the changes in Europe today are impacting upon the European CH. The RICHES Taxonomy provides the conceptual framework for the research, through an agreed baseline of terms, definitions and explanations giving a rigorous, coherent and global approach to the project and to new investigations.

The terms, concepts and definition provided in the RICHES Taxonomy aim to:

- Ensure that appropriate academic, professional and technical standards for research are met in identifying, analysing and understanding both existing ways and new models for defining CH and CH practices
- Develop a common CH language to serve the interests of the wider and multi-disciplinary CH community including: policy-makers, cultural ministries of member states, regional, national and state authorities, public administrations, European institutions and researchers and professionals from different sectors

The RICHES Taxonomy is the result of an ongoing and iterative work based on the analysis of the main outcomes of relevant policy papers and recommendations and of co-creation events and other workshops, seminars and conferences, bringing partners, interested associates, experts, professionals and researchers together.

The Taxonomy is targeted towards:

- CH organisations
- Arts, Humanities and Social Sciences experts and researchers
- SMEs working within the digital cultural economy and industrial associations and organisations dealing with creative industries
- Cultural ministries of member states within and beyond the project partnership
- Regional, national and state authorities; public administrations; European Institutions
- General public and citizen-scientists

The RICHES Taxonomy was published as an online resource on the RICHES project website in early December 2014, regularly updated and reviewed, and it has been migrated in the new RICHES resources website in October 2015⁴ for the use of RICHES' researchers and wider CH community. It makes available around 100 terms and concepts for consultation, multiple perspectives, notions and knowledge and a common framework of CH understanding in the digital age. It is licensed under an Attribution-ShareAlike 4.0 International (CC BY-SA 4.0) Creative Commons license.⁵

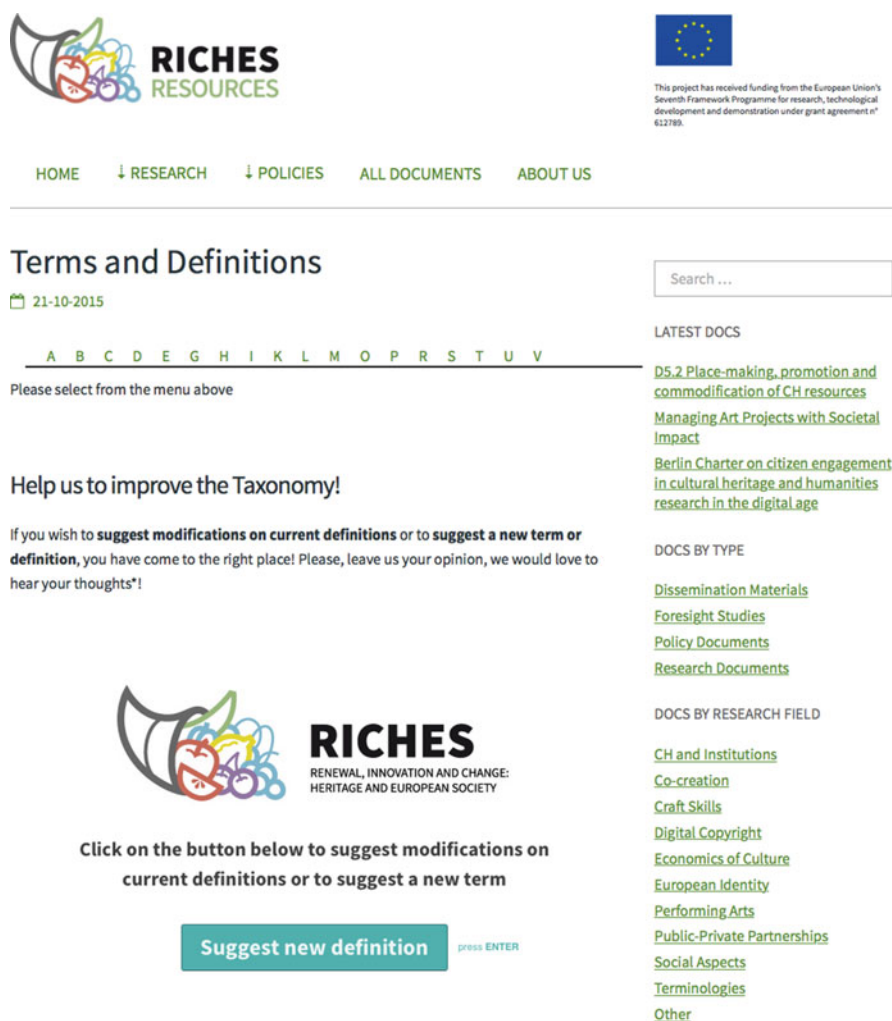
The Taxonomy has given strength and a global approach to the RICHES project and aims to open now a new path or space for research and reflection, strengthened by the Editorial Team's commitment to incorporating "new terms/trends/facts", and encouraging the proposal, suggestion and submission of new concepts. In this light, it is intended to be a living, dynamic and evolving tool which is expected to grow in number of terms and definitions delivering impact throughout the project's lifetime and beyond.

The version of the Taxonomy provided in this Appendix is dated December 2015. Further updates will be accessible online at:

resources.riches-project.eu/taxonomy (Fig. 8)

⁴ <http://resources.riches-project.eu/research/taxonomy/>

⁵ <http://creativecommons.org/licenses/by-sa/4.0/>



RICHES RESOURCES

HOME ↓ RESEARCH ↓ POLICIES ALL DOCUMENTS ABOUT US

Terms and Definitions

21-10-2015

A B C D E G H I K L M O P R S T U V

Please select from the menu above

Help us to improve the Taxonomy!

If you wish to **suggest modifications on current definitions** or to **suggest a new term or definition**, you have come to the right place! Please, leave us your opinion, we would love to hear your thoughts*!

Click on the button below to suggest modifications on current definitions or to suggest a new term

Suggest new definition press ENTER

Search ...

LATEST DOCS

- [D5.2 Place-making, promotion and commodification of CH resources](#)
- [Managing Art Projects with Societal Impact](#)
- [Berlin Charter on citizen engagement in cultural heritage and humanities research in the digital age](#)

DOCS BY TYPE

- [Dissemination Materials](#)
- [Foresight Studies](#)
- [Policy Documents](#)
- [Research Documents](#)

DOCS BY RESEARCH FIELD

- [CH and Institutions](#)
- [Co-creation](#)
- [Craft Skills](#)
- [Digital Copyright](#)
- [Economics of Culture](#)
- [European Identity](#)
- [Performing Arts](#)
- [Public-Private Partnerships](#)
- [Social Aspects](#)
- [Terminologies](#)
- [Other](#)

Fig. 8 Form on the website to contribute with new terms and suggestions

2 The RICHES Taxonomy: List of Terms and Definitions

2.1 Analogue and Digital

‘Analogue’ indicates the quality of an object that is similar to or reflects the characteristics of another object. An example of analogue media is analogue photography, which generates an analogy with a real-life phenomenon by means

of chemical processes. The analogue format for data storage is characterised by information transmission through the modulation of a continuous transmission signal. By way of contrast, the digital format represents physical magnitudes (such as sound, space, and colour) through a binary system of values (1-0, positive-negative).

Within the Cultural Heritage sector, the conversion from analogue to digital has been an extended practice growing in importance over the past decades. In many cases, an artwork may exist in both analogue and digital formats. For example, a photograph may have an analogue version on film and a scanned version. The analogue and digital formats come with different advantages for storing, displaying and enhancing access to Cultural Heritage objects. Analogue versions are theoretically more faithful and rich representations, while digital versions involve a process of simplification and reduction. Yet, digital formats have their own advantages, particularly for their capacity to aggregate different media formats (for example, video and still images), the ease of transfer among compatible platforms, and easier storage of large amounts of data.

Sources

- Oxford English Dictionary. ‘Analogue’ and ‘digital’ entries. <http://www.oed.com/>

2.2 Assignment of Copyright

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

2.3 Augmented Reality

Augmented Reality (AR) is a set of technologies that enhance the perception of reality, by adding overlays of information about the environment and its objects through computer simulation. AR differs from virtual reality: while virtual reality replaces the real world with a simulated one, augmentation is conventionally in real-time and uses real elements from the user’s environment with virtual reality overlays.

Augmented reality has many applications in the Cultural Heritage domain. For example, it can be used in archaeological sites to provide on-site reconstructions of ancient places, or audio alerts and descriptions of historical places. AR technology can also be used to enrich museum visiting and learning experiences, by adding different content layers or supplying computer-generated simulations.

2.4 Authenticity

The term ‘authenticity’ can be used to describe a thing, including heritage objects, an experience, or a person. In all instances the term conjures up notions of originality, truth and sincerity, or a quality of being real as opposed to being fake. For example, we can speak about ‘an authentic tourist experience’ or about ‘the authentic self’ or ‘an authentic painting’. The notion of ‘authenticity’ has had a long history within the social sciences and humanities and is still commonly used in everyday life. Earlier definitions of authenticity eschewed ideas of commodification, placing greater emphasis on ideas of tradition. An object, for example an artefact in a museum, was deemed authentic if it was made by a traditional artist to serve a traditional function. Objects made for the consumer or tourist were deemed inauthentic. Such definitions have however come under significant criticism in recent years with some critics pointing out the socially-constructed nature of authenticity. Authenticity, in this sense, is negotiable. Such criticisms have led to the development of new ways of thinking about what is authentic, giving rise to terms such as ‘staged authenticity’, used, for example, to describe touristic experiences of particular cultural practices.

2.5 Authority

In the context of Cultural Heritage, authority refers to the power that a person or group of persons have to define what is regarded as heritage, and to decide how that heritage might best be preserved and exploited. More recently, concepts such as shared authority have emerged to describe practices of power-sharing about heritage between traditional heritage brokers, such as professionals in museums, archives and libraries, and those for whom the heritage is deemed to belong or have belonged. Affiliated with the term ‘authority’ are terms such as ‘author’ or ‘authorship’. The author—in most instances—is deemed to have legitimate claim, authority over or responsibility for that work.

2.6 Authorship

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

Joint or co-authorship arises where two or more people have contributed the right level of intellectual creation to a copyright work and their contributions cannot be separated. For example, in a collection of essays authorship in each of the essays will reside with the individual author because they can be readily be separated from each other. Where however two or more authors have collaborated in painting a

picture, and it is not possible to point to part of that picture and say that one author rather than another painted that part, then the authors will be joint authors in law.

2.7 Belonging

At its most mundane, the verb ‘belonging’ describes the quality of fitting in, or being a member of a particular group, including family, friends, or community. In recent years the concept has, within a broader framework of the politics of belonging, been increasingly associated with concepts such as identity, recognition, (social) inclusion or (social) exclusion, especially in relationship to ideas about citizenship. The question of what groups can be regarded as belonging to Europe, for example, has become more salient and contested in recent years. In this sense the concept of ‘belonging’ describes a struggle to become part of a group, where the decision to include or exclude rests with an authority more powerful than the individuals who desire inclusion or recognition. It is within this framework that the concept of belonging is relevant for the Cultural Heritage domain. In this stance, Cultural Heritage becomes one of many factors upon which notions of inclusion or exclusion—essentially, questions of belonging—are negotiated and contested, especially under the authority represented by the political community of the nation state or the region.

2.8 Citizen Science

‘Citizen science’, also termed ‘crowd science’ or ‘crowd-sourced science’, refers to the method and practice of involving members of the public in the conduct of professional or specialist research in order to perform activities such as data gathering, observation, calculation, testing, measurement and technology development. Citizen scientists often work in collaboration with professional researchers and research institutions in the frame of larger-scale projects where they perform defined tasks.

Despite the novelty of the term, citizen science is not a new practice. It reflects the way research was conducted by self-made and often self-funded scientists and inventors before the institutionalisation of research and its concentration in research centres, think tanks and universities. Yet, the contemporary practice of citizen science is also fundamentally different from the past in several respects. First, it is uniquely supported by digital technology, which affords new modalities for engaging citizen scientists, facilitating their research activities, and collecting and centralising inputs from diverse groups of contributors. Secondly, the collaboration between established researchers and voluntary citizens with an interest in science reflects an underlying openness towards the democratisation of research, bridging the gap between professional expertise and public engagement in the pursuit of science. As such, citizen science is an exclusively contemporary movement towards the co-creation of “a new scientific culture”, which brings value to science while

contributing to the enhancement of knowledge and skills of volunteer collaborators (EC 2013).

Sources

- European Commission (2013) Green paper on citizen science. Citizen Science for Europe: Towards a better society of empowered citizens and enhanced research. Available at <http://ec.europa.eu/digital-agenda/en/news/green-paper-citizen-science-europe-towards-society-empowered-citizens-and-enhanced-research-0>

2.9 Civil Society

‘Civil society’ stands for the totality of citizens and the social organisations representing and acting to promote their will, interests and voices in a society. It is most commonly used as an umbrella term covering all individuals, groups and the forms of organisation that are non-governmental. In some perspectives civil society is equated with the third sector, therefore excluding private and for profit organisations alongside governmental organisations. Some other approaches include economic actors in definitions of civil society.

The main actors of civil society are civil society organisations, which can include organised interest groups, labour market entities such as trade unions, professional associations and non-governmental organisations (NGOs), educational and community-based organisations, and other forms of association and organisation which mediate citizens’ participation in social, cultural, political and religious life. These organised forms of civil society perform an important role as representatives and facilitators mediating between citizens and the EU and national governments. Through its organisations, civil society is a building block of our contemporary European society, a catalyst for maintaining vibrant democracies and enabling citizens’ socio-cultural and political participation. In particular, civil society performs two roles.

First, civil society gives life to democratic procedures and rules that formally and organisationally constitute European democracies. It enables citizens’ participation in political life well beyond the traditional channels such as the right to vote. Civil society organisations represent and promote citizens’ interests and can become influential in agenda-setting and decision-making by governmental agencies.

Secondly, civil society organisations and associations are catalysts and facilitators for socio-cultural and economic activities, contributing to education and to a rich cultural life. Examples of civil society organisations and initiatives are art and culture clubs, museums, historical societies, dance and folk culture, and literary clubs.

Sources

- Commission of the European Communities (2002) Towards a reinforced culture of consultation and dialogue—General principles and minimum standards for consultation of interested parties by the Commission. COM(2002) 704. Brussels.

2.10 Co-creation

Co-creation describes joint or partnership-oriented creative approaches between two or more parties, especially between an institution and its stakeholders, towards achieving a desired outcome. While the term is sometimes used interchangeably with ‘collaboration’, co-creation places a greater emphasis on process. Similarly, emphasis is placed on creating conditions of equality among the different stakeholders involved in the creative process: the contributions of the different co-creators are equally valid. The process orientation in co-creation is regarded as important for increasing stakeholder ownership or buy-in for the project or product that is being created. Such approaches also promote greater trust and more sustainable relationships between the different parties involved. Co-creation has developed increased salience within Cultural Heritage institutions in recent years, describing the co-construction of products and experiences by both the institution and the community.

Because co-creation involves the creative input of different stakeholders and therefore involves joint authorship of a project or product, issues of intellectual property rights may emerge with co-creation projects.

Sources

- Kambil, A., Friesen, G. B., and A. Sundaram (1999) Co-creation: A new source of value. *Outlook Magazine* 3.2 (1999): 23–29.

2.11 Collaborative Environments

The term is traditionally used to describe online environments where two or more participants work collaboratively to accomplish a shared goal. Collaborative environments are created using a range of computer and communications tools including instant messaging and chat-rooms, discussion databases, mobile communicators, shared whiteboards, media spaces and audio, video or web conferencing tools. While the term collaborative environments has been restrictively used for virtual or online spaces, it bears relevance for real, non-virtual, spaces that facilitate co-creative practices among different participants to achieve a common goal.

2.12 Collective Licensing

2.12.1 EU Context

Collective licensing is a mechanism whereby collecting societies are given a mandate by their members to licence specified uses of copyright protected works to third parties. These works are made available via blanket licences which apply to

a particular class of user (such as schools) and for a specific type of use (such as photocopying). Collecting societies are regulated under EU law to ensure good governance. To date, licences are limited to individual territories. A current EU proposal suggests a multi-territorial approach for on-line music licences.

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

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

2.13 Commodification

Refers to the process of converting human, social or cultural value into market value, applied to goods, services, ideas, and other forms and products of human creativity that do not initially possess a market value. The term is often used critically in the vein of Marxist theory, to analyse processes by which items or entities that can be considered unique or inestimable in economic terms, are changed into utilities or sellable goods and services. Slavery is an extreme form of commodification, in which human beings are assigned an economic value and traded like common goods. While the term has been used interchangeably with ‘commoditization’, the latter is at times used to describe the transformation into commodities of goods and services with initial distinctive attributes.

The commodification of heritage captures the process in which economic value comes to prevail over cultural value in the way cultural expressions, experiences and objects are communicated, described, perceived and marketed. This phenomenon is associated with cultural tourism, which markets cultural experiences and in this process promotes culture as a bundle of cultural goods and services that can be marketed, sold and bought. In a critical perspective, commodification is associated with the negative effects of globalisation, causing the dispersion of local value and authenticity while a local culture is aligned to a global economy. By way of contrast, in a sustainable development optic, heritage commodification can also be seen as a source of capital flow from touristic activities, which can be directed and invested to benefit local communities living around heritage sites.

2.14 Communication to the Public

2.14.1 EU Context

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

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

The public: There should be a relatively large but indeterminate number of potential beneficiaries of the communication. Communicating a signal to hotel rooms (an indeterminate public) where there is a revolving public is sufficient but a dentists' waiting room is not (a small determinate group at any one time).

The new public: The communication must be directed at a public not taken into account by the copyright owner at the time of the initial communication—a new public.

The profit making nature of the communication: Does the communication influence the behaviour and decisions of clients? Communication in an hotel is of a profit-making nature because it is an additional service that might attract additional guests. A dentist's waiting room is not a profit-making nature and would not have any impact on the number of clients.

2.15 Community Cohesion

'Community cohesion' is a contested concept that emerged in Britain after the 2001 urban disturbances in Northern England. It was formulated by government and refers to the need to build strong social relationships between people from different ethnic backgrounds often with the aim of addressing social tensions. Initiatives to promote community cohesion are often developed at city wide and they usually try to emphasize a sense of 'belonging' by highlighting the commonalities rather than differences that exist between social groups.

2.16 Copyright

Copyright is the right for an author to control the reproduction and dissemination of literary and artistic works that he/she creates (authorial works). Also protected are the media through which authorial works are made available including sound recordings, films and broadcasts. These rights are called either copyright or neighbouring rights. The rights give to the owner exclusive economic rights for a set period of time to copy the work, issue copies of the work to the public, rent or lend the work to the public, perform, show or play the work in public, communicate the work to the public, and to make an adaptation of the work. The author also has moral rights in the works with the right of integrity and the right of attribution being the most common.

2.17 Copyright Term

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

2.17.1 International Context

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

2.17.2 EU Context

Literary or artistic work: 70 years after the death of the author. In the case of joint authors 70 years after the death of the last author

Anonymous or pseudonymous works: 70 years after the work is lawfully made available to the public. When the pseudonym leaves no doubt as to the identity of the author, or if the author discloses his identity, then the term of protection shall be as for literary and artistic works.

Cinematographic or audiovisual works: 70 years after the death of the last of the principal director, the author of the screenplay, the author of the dialogue and the composer of music specifically created for use in the cinematographic or audiovisual work.

Musical composition with words: 70 years after the death of the last author.

Photographs: 70 years after the death of the author.

Phonograms (sound recordings): 70 years after the fixation is made. If the phonogram has been lawfully published within this period, 70 years from the date of the first lawful publication.

2.18 Craft Skills

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 luxury goods. Craft skills are regarded as an intrinsic part of Cultural Heritage and are regarded as vulnerable for a variety of reasons, including displacement by automated manufacturing, the relatively high cost of 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.

In Cultural Heritage terms, craft skills can have contemporary relevance in different ways:

- As transferable capabilities in new contemporary contexts—for example in areas such as contemporary crafts whereby craft skills can be applied within new aesthetic contexts or used with non-traditional materials and technologies
- Replication/revival—in which craft skills are exercised in the making of traditional artefacts e.g. high quality reproduction furniture
- As hybrid functions which can contribute as part of manufacturing processes for specific sectors such as luxury automotive production and where they signal attributes such as exclusivity, attention to detail, value and quality.

Craft skills are often associated with a demand for high-level human capabilities:

- Manual dexterity
- Extensive training and practice
- A specialist knowledge of materials, processes and finishes
- Specific relevant cultural/historical knowledge

2.19 Creative Economy

A complex system of resource management and exploitation which relies upon the exploitation of creativity and culture (hence creative and cultural industry) for generating sustained and inclusive economic growth, social development and environmental protection.

Sources

- UNESCO (2013) “Creative Economy Report. Paris: UNESCO.

2.20 Creative Industries

The notions of ‘creative industries’ and ‘cultural industries’ indicate those sectors of the economy residing on the exploitation of culture and creativity. According to the UK Government Department for Culture, Media and Sport (DCMS), the creative industries are “those industries which have their origin in individual creativity, skill and talent” and “have a potential for wealth and job creation through the generation and exploitation of intellectual property” (DCMS 2001). Advertising, design, fashion, game development, crafts, video, photography, and performing arts are examples of creative industry sectors. The creative industries are considered important drivers of innovation, with potential spill-over effects on

other sectors of the economy. Innovation resides in the development of new products and services, but also of new ideas and approaches that can generate economic value.

Sources

- UK Technology Strategy Board. Creative Industries Strategy 2013–2016.
- DCMS (1998/2001) Creative Industries Mapping Document. London: DCMS.

2.21 Creativity

Refers to the process of conceptualising and creating an object that displays unique, novel qualities, as well as the capacity to generate novelty by an individual, group, institution or system. Creativity—understood as the potential to create something new and generate innovation—is a landmark of human and social development, which is why this concept has been amply studied in a variety of disciplines, ranging from linguistics and philosophy to economics and the sciences.

Creativity is considered the central driver for a range of creative professions spanning art, design, literature, crafts, television, advertising, and new product development among others. Creative professionals working in these sectors have been recognized as significant players in the economies of industrialized nations, and constitute the active workforce of the creative industries: sectors of the economy which generate capital through the delivery of creative services and the generation and exploitation of intellectual property attached to creative products.

2.22 Crowdsourcing

‘Crowdsourcing’ refers to the mechanism and process by which an institution, an organisation or an individual solicits and uses inputs from large groups of unidentified people, via an open call for contributions issued online. Crowdsourcing applications vary in terms of the type of services solicited, the individual or collaborative nature of the contributing agents’ work process, or the incentives used to motivate contributors. For example, crowdsourcing may involve splitting a task into micro-tasks to be outsourced, but also selecting the best out of individual contributions submitted in response to a call. Individuals may be motivated to participate in crowdsourcing by material incentives, the expectation of a prize, or only for the personal satisfaction of contributing their knowledge and talent.

Crowdsourcing practices are employed in various domains, ranging from business to science and technology, to arts and culture projects. For example, crowdsourcing is used as base mechanism for advancing citizen science initiatives, where volunteers engage in scientific research activities, often in collaboration with researchers and research institutions. In recent years, crowdsourcing has been employed by Cultural Heritage institutions for outsourcing various tasks to the general public, for instance digitisation, transcription of manuscripts, and creating

metadata for digital archives. This model is not only a means to increase the appeal and accessibility of collections for end users, but is also an effective way of spurring the appreciation of culture by active communities amongst the general public. At the same time, the use of crowdsourcing by museums and memory institutions opens theoretical and ideological debates with respect to the changing role of cultural institutions as knowledge guardians and safe keepers.

2.23 Cultural Capital

Refers to tangible and intangible products of human creativity with an actual or potential cultural value. It can also refer to the amount of cultural value displayed, contained or potentially generated by a cultural asset. In an economic perspective, cultural goods and services can be considered forms of cultural capital possessing a dual cultural and economic value.

The concept originated in the work of French sociologist Pierre Bourdieu, who expanded the economic notion of ‘capital’ and pointed to the importance of social, cultural and symbolic forms of capital in determining standards and opportunities for acquiring status, wealth and power in a society. Bourdieu proposed three instances of cultural capital: embodied (such as the knowledge and skills that enable an individual to exercise cultural authority), objectified (such as tangible assets that are assigned cultural value, such as works of art), and institutionalised (institutional sanction and legitimation of cultural value). The concept gained popularity in areas outside sociology, in particular for analysing the interplay between culture and development, and investigating issues related to cultural sustainability and sustainable development.

Cultural capital relies on, can be converted into, manifested as, or grow exponentially in relation to other forms of capital. For example, the economic value of a building or artwork increases when it is recognized as an object of exceptional cultural value. Likewise, a society or community with a strong cultural capital in the form of intangible and tangible assets can generate economic value and give rise to employment opportunities by marketing products with a cultural value and opening the need for a skilled work force to drive production and commercialisation.

Sources

- Bourdieu, P. (1983/1986) *Forms of Capital*.
- UNESCO (2004) Preliminary draft of a convention on the protection of the diversity of cultural contents and artistic expressions. CLT/CPD/2004/CONF-201/2. Paris: UNESCO.

2.24 Cultural Citizenship

The concept of ‘cultural citizenship’ emerged recently to describe a form of citizenship associated with multicultural societies, comprising a cultural community that regards itself as the majority, and minority cultural communities. The term

has been used to describe the right of the minority or marginalised cultural community to being different without revoking their rights of belonging to that society (Rosaldo 1994). This definition is based around the demands of a particular cultural group, deemed marginalised or disadvantaged based on a number of factors including their culture, to all the entitlements that full citizenship offers. While such a definition has been useful to foreground the rights of marginalised groups, it can be criticised for being too restrictive or instrumental, or for promoting too restrictive a view of culture. Moreover, this definition of cultural citizenship privileges how that particular group defines their difference from the dominant culture.

In another conception, cultural citizenship is defined as “cultural practices and beliefs produced out of negotiating the often ambivalent and contested relations with the state and its hegemonic forms that establish criteria of belonging, within a national population or territory. Cultural citizenship, then, is both about ‘self-making’—what an individual or community believe themselves to be—and ‘being made’ by the state—what kind of citizen the state wants or tries to construct of a person or community.” (Ong et al. 1996). Within this view of cultural citizenship, Cultural Heritage is central, defining what aspect of a person’s or community’s heritage is deemed important or acceptable both by the community itself and by the state to ensure all the rights of full citizenship.

Sources

- Rosaldo, R. (1994) Cultural Citizenship in San Jose, California. *PoLAR: Political and legal anthropology review* 17.2 (1994): 57–64.
- Ong, A. et al. (1996) Cultural citizenship as subject-making: immigrants negotiate racial and cultural boundaries in the United States [and comments and reply]. *Current anthropology* (1996): 737–762.

2.25 Cultural Heritage

Cultural Heritage is some form of inheritance (moveable, immovable, tangible or intangible) which has been selected (and reselected) by a nation or community. It is a politically-constructed term which involves notions of ownership and reflects social and economic systems of value and cultural politics, including human rights. It is linked with (group) identity and is both a symbol of the cultural identity of a self-identified group (a nation or people) and an essential element in the construction of that group’s identity. It is not just history but is 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.

2.26 Cultural Institutions

Cultural institutions are institutions with an acknowledged mission to engage in the conservation, interpretation and dissemination of cultural, scientific, and environmental knowledge, and promote activities meant to inform and educate citizens on associated aspects of culture, history, science and the environment. Examples of cultural institutions are museums, libraries, historical or botanical societies, and community cultural centres. Cultural institutions play a pivotal role in the maintenance, conservation, revitalisation, interpretation, and documentation of heritage, and in facilitating citizens' interaction and engagement with heritage. As such, cultural institutions are important actors in the promotion of cultural understanding, intercultural dialogue and cultural diversity, and in the transmission of culture across generations.

Sources

- Open Method of Coordination (OMC) working group of EU member states experts on the role of public arts and cultural institutions in the promotion of cultural diversity and intercultural dialogue. Report on the role of public arts and cultural institutions in the promotion of cultural diversity and intercultural dialogue. January, 2014.

2.27 Cultural Tourism

Refers to tourism activities that capitalise upon a country's or a population's culture. Cultural tourism encourages tourists to interact with and appreciate diverse manifestations of a local culture, both tangible, such as architecture and traditional visual arts, as well as intangible, such as local music, storytelling and spiritual and knowledge systems. A recent report by the Organisation for Economic Co-operation and Development (OECD) has highlighted the role that cultural tourism can play in regional development, by enabling the creation of links between tourism and culture which can enhance the attractiveness of destinations for tourists and increase "their competitiveness as locations to live, visit, work and invest in" (OECD 2009).

Sources

- OECD (2009) *The Impact of Culture on Tourism*. Paris: OECD.

2.28 Curation

The term 'curation' is generally understood as the act of caring for or overseeing specific content within a museum, library, archive or other similar institution. A curator is a trained content specialist responsible for the selection, care, development, and interpretation of heritage material, whether tangible or intangible. Within

the context of heritage institutions such as museums, curation also refers to the ways in which Cultural Heritage is selected, organised and presented to an audience, especially within the context of exhibitions or public programmes. More recently, the term ‘curation’ has also been deployed to describe how online content is selected and organised for a virtual public, including online exhibitions.

2.29 Data Migration

Refers to the process of transferring data for storage into different types of computer platforms or systems. For example data initially stored onto floppy-drives may be transferred into CDs or DVDs. Data migration can be dictated by a variety of factors, from a technology becoming obsolete (such as the floppy-drive), to the need to upgrade or replace a system.

2.30 Digital Age

The digital age describes the current period in human history, which is characterised by the rapid and paradigmatic transformation of information and communication systems brought about by advances in computer-based technology. The shift consists in the passage from systems based on analogue technology (that is based on continuous values) to digital systems (technology based on discrete, binary values). The binary language of digital systems has contributed to a fundamental transformation in the nature of information and, therefore, in the concept of communication: the technological capacity to store, transmit and process information has grown exponentially in terms of quantity and speed. That has had a great economic, and, above all, social impact: using a wide range of devices, people can create, share and receive an incredibly large quantity of information and data very quickly from one side of the world to the other.

2.31 Digital Art

Digital art is produced when digital technologies give a substantial contribution to the creation of an artistic work. This implies that digital technologies are used not only for facilitating or speeding up the creative process, but also for adding to it something more, enabling the creator to go through innovative paths and to achieve innovative artistic results, which would not be possible to achieve otherwise.

Digital art often involves interaction between artist and observer or between the observer and the artwork, which responds to her/him; digital art therefore often enables practices of interaction, social exchange, participation and transformation.

Contemporary creative industries specialising in entertainment and advertising make extensive use of digital technologies, especially in the field of visual effects, combining their commercial purposes with advanced technologies in order to achieve an ‘artistic’ result, which is intended to look more appealing to their target consumers.

2.32 Digital Copyright

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

Sources

- World Intellectual Property Organisation Copyright Treaty, 1996

2.33 Digital Divide

Refers to the unequal distribution of and access to information and communication technologies, as well as the unequal participation in the knowledge society as afforded by the use of communication technologies. Patterns of inequality can be associated with social class, gender, economic status, and geographic areas among other factors. The concept of ‘digital divide’ has been studied extensively and evolved from an initial meaning associated strictly with physical access to technology, to a more elaborate meaning in which associations are drawn with patterns of social inequality and social exclusion on virtue of racial, ethnic, and economic differences.

2.34 Digital Economy

A sector of the economy which exploits the capabilities of digital technologies for creating value and hence employment and economic growth. It is based on high mobility and dynamism, an increasing capacity to collect, store and treat massive flows of data, pervasive network effects and, it should be added, pervasive creative/artistic enterprise (such as the ability to augment reality, to generate multimedia content and to create captivating audio-visual effects).

The digital economy has impacted upon all other sectors of the economy and also on social activities, including: retail, transports, financial services, manufacturing, education, culture, healthcare, and media industries.

Sources

- EC, Directorate-General Taxation and Customs Union (2014) Working Paper: Digital Economy—Facts & Figures.

2.35 Digital Exhibition

According to the International Working Group on Digital Exhibitions, it is an exhibition which “assembles, interlinks and disseminates digital multimedia objects in order to deliver innovative presentations of a theme, or series of themes” enabling a high degree of user interaction. The term ‘exhibition’ indicates an event organised by cultural institutions to offer public access to and appreciation of objects, with scientific, didactic or promotional goals. As different from traditional exhibitions staged in museums and galleries spaces, digital exhibitions can make accessible a greater amount of items, enable users to enjoy items that may not be accessible otherwise, they are dynamic, can be constantly updated, and can remain accessible over time.

Sources

- Natale, M. T., Fernandez, S., & Lopez, M. (2012). Handbook on Virtual Exhibitions and Virtual Performances, version 1.0.
- Digital exhibitions resources. Available at <http://museumsdokumentation.de/joomla/digital-exhibitions/definition>

2.36 Digital Heritage (Digital Repository, Online Catalogue)

‘Digital heritage’ or ‘digital Cultural Heritage’ refers to digital content and materials that represent, reflect or describe human knowledge and cultural manifestations, are invested with cultural value, and considered a legacy that ought to be transmitted to future generations. Digital heritage content can be produced by converting materials originally in analogue format, or can be ‘born digital’—objects such as documents, artworks, software or websites that originate in digital format.

With the advent of digital technology and the extended practice of digitisation of collections, many cultural and heritage institutions create and maintain digital repositories. Digital repositories, also termed ‘digital libraries’, are collections of digital objects spanning different media formats (text, audio, video, among others) and accompanied by registries, protocols or standards for classifying, storing, preserving, consulting and retrieving data. Most digital repositories are provided with a search interface which allows information retrieval. When offered for public usage, the content of these libraries can be accessed remotely via computer networks.

Online catalogues are another way of offering access to information. These are online list-like arrays of items arranged according to pre-determined classification

standards and provided with descriptive details. To be effective, online catalogues should be designed in accordance with usability principles (clear structures and terminology, appropriate contextual information) to allow users to effectively search for and retrieve the records without any assistance.

Sources

- Athanasopoulos, G., Candela, L., Castelli, D., Innocenti, P., Ioannidis, Y., Katifori, A., & Ross, S. (2010). The digital library reference model. DL.org (Coordination Action on Digital Library Interoperability) D 3.

2.37 Digital Technologies

Refers to applications, platforms and tools used to create, store, manipulate, retrieve, and transmit information coded in the binary computing system, as combinations of 0 and 1 digits. Digital technologies have radically transformed the way contemporary societies deal with information and communication and feature widely in the methods utilised by contemporary society to produce and enjoy communication flows. Consequently, they are to be found not only in the fields of computing or the computer industry, but in all walks of life—employment, culture, services, public administration, and leisure time.

2.38 Digitisation

Refers to the process of converting analogue to digital data, with the purpose of enabling data processing, storage, and transmission through digital circuits, equipment, and networks. Digitisation is enabled by different electronic devices such as scanners, cameras, and 3D technology.

Cultural Heritage digitisation is part of today's agenda for many cultural and memory institutions and has two main purposes: providing a wider range of audiences access to (digital) heritage and assuring long-term preservation for the (digital) objects which are created, so that those objects can be located, rendered, used and understood both in the present and in the future. However, no process can guarantee to be eternally effective as one must consider the implications of fast-changing technology and the possible obsolescence of the electronic devices or the digitalization tools available in the present.

2.39 Disaster Centre

'Disaster centre' is a term normally associated with risk and security planning and management to prepare for, prevent or alleviate damage caused by major natural or man-made disasters, such as hurricanes, earthquakes or fire. The term has however come to have salience within technology studies as well as within Cultural Heritage

circles. For information and communication technology, the term can be used to describe both a virtual or physical space where actions can be taken to protect against irreversible data loss, equipment failure or cyber attacks. This definition of a disaster centre is germane for Cultural Heritage held in institutions, where risk and disaster management policies and procedures can be effectively implemented to mitigate against any damage to both the tangible heritage itself and the digital information that is stored about the heritage.

2.40 E-Infrastructure

In a general sense, an e-infrastructure indicates the totality of technology-enhanced networks, tools, resources, and protocols as well as the human, social and organisational resources and structures which can enable the advancement of collaborative work in a specific field of practice. An e-infrastructure in the digital heritage domain is the cloud network of Cultural Heritage from many countries, institutions and their users, that can be shared, retrieved, stored, and accessed anywhere and anytime by the power of information and communication technology.

2.41 Exceptions and Limitations to Copyright

2.41.1 EU Context

Things that may be done with a work protected by copyright without the consent of the owner of the copyright. The Information Society Directive contains a closed list of exceptions and limitations that Member States may incorporate into their domestic laws. In relation to the right of reproduction these include: photographic reproductions on paper or any similar medium of work (excluding sheet music) provided that the rightholders receive fair compensation; reproductions on any medium made by a person for private use which is non-commercial, provided that the rightholders receive fair compensation; reproduction made by libraries, educational establishments, museums or archives, which are non-commercial archival reproductions of broadcasts, reproductions of broadcasts made by “social institutions pursuing non-commercial purposes, such as hospitals or prisons” provided that the rightholders receive fair compensation.

In relation to the rights of reproduction and communication to the public these include: illustration for teaching or scientific research, provided the source, including the author’s name, is acknowledged; uses for the benefit of people with a disability, current event reporting, provided the source, including the author’s name, is acknowledged; quotations for purposes such as criticism or review, provided the source, including the author’s name, is acknowledged; use necessary for the purposes of “public security” or to the proper performance or reporting of “administrative, parliamentary or judicial proceedings”; use of political speeches and extracts of public lectures or similar works, provided the source, including the

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

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

2.42 Exploitation

The channels through which the copyright owner can make their work available to third parties by way of assignment or licence and which can be for all of the exclusive rights associated with the work or for some only of the rights and can be for the full term of protection or for part only.

2.43 European Society

Emerging from centuries of intra-European conflict and the consequences of European colonialism, European society is defined by its diversity, pluralism and heterogeneity. Both ancient traditions and contemporary culture are celebrated and sometimes contested. As a result of this shared history, a set of values - tolerance, respect for individual rights, democracy, and freedom of expression—are commonly-espoused. A large proportion of the sovereign states that comprise the continent of Europe are politically, socio-economically and culturally interconnected within the framework of the European Union. However, European society, conceptualised in broad historical and cultural terms, is not synonymous with or defined by any particular territorial, jurisdictional or supra-national organisational entity.

2.44 GIS Mapping and GIS Applications

A Geographic Information System (GIS) is an information system devised to work with spatial or geographical data, enabling operations such as geo-data capture, storage, analysis and display. GIS allows the precise location and display of several layers of information on a single map, for instance aerial views of the buildings, places of interest and entertainment, statistical data about neighbourhoods such as population density and pollution levels, and others. GIS mapping refers to the process by which geo-located data are charted onto maps. GIS applications are

systems that display or use GIS-data. Google Maps are examples of GIS applications.

GIS technology enables the visualisation of complex data sets in relation to their location on a map, which makes it a useful tool for many disciplines and for enhancing public access to information. For example, GIS allows citizens to learn about a neighbourhood, including data regarding education, number of schools, safety and entertainment. It also allows researchers to make sense of complex data sets in relation to spatial location, and also picture their evolution in time.

2.45 Heritage Professionals

The term ‘heritage professionals’ describes those persons, usually having formal academic or professional training, working within heritage institutions or more generally within the heritage field. Among others, these include curators, librarians, archivists, and arts managers. Heritage professionals have official responsibility for the heritage held within these institutions and are regarded as different from heritage users.

2.46 Identity

The notion of ‘identity’ is generally used to describe how a person defines him or herself as an individual or in relation to a group or community. It is the response to the question ‘Who am I?’ when posed for an individual or ‘Who are we?’ when directed at a group. When used to describe groups, the term denotes similarities among those deemed to share particular traits within the group or community, whether an ethnic, gendered or sub-cultural community, and is understood in opposition to others regarded as different.

While the notion of ‘identity’ has for a long time been utilised in the sense of meaning who a person is or to describe a trait or set of traits characterising an individual or a group, such uses have received significant criticism in recent years for being too restrictive and essentialist. More contemporary understandings of identity place an emphasis on choice, on those traits with which a person chooses to associate, therefore provoking a shift from identity to identification. In this sense identity can be multiple. One way in which individual and collective cultural identities are developed is through participation in cultural activities, aesthetic judgement and freedom of expression.

2.47 Innovation/Innovator

‘Innovation’ refers to the process and outcomes of bringing about novelty in ways that demonstrate progress or improvement with respect to solutions offered in the past. Innovation can be represented at every level of the social and physical world

which can be changed through human agency, and can encompass mere ideas, concepts, theories, but also new technologies, equipment, devices, forms of social organisation, or socio-technical systems. An innovator is an individual or an organization through whose agency something better than before is brought into being.

In the future of the Cultural Heritage sector, memory and heritage institutions will continue to be relevant for a society in constant evolution if they maintain a climate in which new ideas and risk-taking are encouraged. The digital era has brought to Cultural Heritage professionals and institutions the opportunity to create, develop and apply technology to enrich educational purposes, encourage audience awareness and achieve business development goals. Keeping pace with technological advancement and the evolution of social needs and interests demands cultural institutions to demonstrate innovative thinking and proactive behaviour.

2.48 Intellectual Property Rights

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

2.49 Interactivity

The capability of a medium to facilitate a two-way communication between people or between the user and the medium itself. More specifically, it is a chain process in which input and feedback are mutually consistent and meaningful and where the interlocutor/interlocutors is/are effectively engaged. In computer science, interactivity is understood as the dialog that occurs between a person and a computer programme/tool. Such interactivity is assured if the human users are motivated, engaged and enabled to express themselves by the tool.

2.50 Intermediality

Refers to practices and work characterised by the combination or fusion of different media. ‘Intermediality’ can be used within discipline-specific work, for instance in performing arts, or indicate the quality of cross-disciplinary practices.

Intermediality is primarily a response to the increasing inclusion of digital technologies within the domain of cultural expressions. Intermediality is now beginning to impact on how culture is repurposed, re-imagined and in so doing, is

challenging traditional methods of capture and documentation of Cultural Heritage. At the same time it is producing new methods for engaging with Cultural Heritage.

2.51 Interoperability

‘Interoperability’ refers to the shared quality of computers or electronic devices, by which information and data exchange among these devices becomes possible. When interoperability conditions are met, data can be transferred freely from several devices or across platforms, for instance from a desktop computer to an external hard drive or a Compact Disc.

The quality of interoperability can be applied as well to societies, communities or global communications. In this context, interoperability can be described as the ability of multiple social, political, and legal entities to work together, cooperate and exchange information (inter-operate) for achieving a common goal.

Sources

- Network Centric Operations Industry Consortium <http://www.ncoic.org>

2.52 Knowledge Exchange

Refers to sharing information, understandings and experiences among agents that can be individual or collective entities such as organisations and associations. The concept is closely related to the notion of ‘knowledge transfer’, which captures the action of transferring knowledge from one individual or group to another. The notion of ‘exchange’ is distinguished from the one of ‘transfer’ by its implication of a constant dialogue and feedback loop between generators/transmitters and receivers of information.

Knowledge that is isolated is the equivalent of lost knowledge. Consequently, the power to construct and create successful knowledge transfer and exchange has a high social and economic value. The challenges associated with knowledge transfer are related to the complexities arising from the nature of knowledge, which possesses both tacit and explicit layers and is often embedded in the tools, networks, actors and processes involved in the production of knowledge in a given locus that can be a community, a group or an organisation. Therefore, knowledge transfer is not a mere communication of messages, but implies intricate processes for the production, organisation, and distribution of knowledge in ways that ensure that knowledge is made available in adequate forms for the projected audiences and scenarios.

Knowledge transfer and exchange are becoming increasingly important in the activities of the creative industries, whose success relies on the effective sharing of skills, expertise and tools among professionals in varied fields of practice and research. The concepts are also of fundamental importance in the transmission and dissemination of knowledge across diverse sectors involved in European socio-

economic development, for instance among researchers, policy-makers and the general public.

2.53 Licence of Copyright

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

2.54 Liveness

‘Liveness’ is a term most commonly associated with performance and theatre studies, which describes the distinctiveness of experiencing live performance. With liveness, emphasis is placed on the value of interaction between performers and audiences during live performances. The term is used in order to relate ideas of what is live to what is considered real, in contrasts to recorded, remediated or representations of performances. Although the term emerged to highlight the distinctiveness of experiencing live performance, this has received criticism recently as being too global and generalising, without sufficiently accounting for context, or as being too dismissive of mediatisation as secondary to that which is live. More recently the concept of liveness has been broadened from performance studies to also include, for example, digital artistic productions that share similar principles of interactive experience.

2.55 Living Heritage

‘Living heritage’ is the dynamic side of Cultural Heritage: heritage which is continuously transformed, interpreted, shaped and transmitted from generation to generation. It also represents the participatory, co-creative dimension of Cultural Heritage, and is characterised by its transient, non-stationary, and hard-to-grasp qualities.

This concept is often assimilated to that of ‘intangible heritage’ or ‘living culture’, referring to cultural practices, representations, knowledge, and skills transmitted intergenerationally inside a cultural system. Though these terms are often used interchangeably, ‘living heritage’ is used to convey and stress the role of living generations in engaging with, defining, interpreting, changing, and co-creating the heritage transmitted from past generations.

2.56 Living Media

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 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, young people are actively involved in what is called participatory culture, characterised by low barriers to creative expression and civic engagement.

2.57 Mainstream Cultural Heritage

The types of Cultural Heritage, predominantly in the form of physical or tangible heritage, that are most frequently represented in the collections of institutions, carry the imprimatur of public and official bodies, enjoy some degree of public approbation or otherwise are most commonly accepted and widely recognised as heritage. The term ‘authorised Cultural Heritage’ is also sometimes used in this context, although no formal process of certification or listing is involved. By definition, therefore, all other forms of Cultural Heritage—intangible, popular, and everyday—may be considered to lie outside of the ‘mainstream’.

2.58 Mediated/Unmediated Heritage

Mediated heritage refers to heritage, whether natural or cultural, tangible or intangible, which is selected, cared for and interpreted (curated) by designated experts within authorised heritage institutions (AHI). These may include memory institutions such as museums, archives and libraries, and are normally associated with the state. Thus, AHI or their experts act as mediators between the designated heritage and those for whom it is preserved. AHI can employ both analogue and digital methods to mediate heritage. The use of new media technology in the curation and wide dissemination of heritage previously held in traditional or analogue form has led to the coining of the term ‘remediated heritage’.

Conversely, unmediated heritage is understood as heritage curated by individuals or groups of individuals (communities) not attached to authorised heritage institutions. Implicit in the idea of unmediated heritage is a notion of more democratic practices of designation and utilisation of such heritage, especially through new media technology.

2.59 Metadata

‘Metadata’ refers to ‘data about data’, where the root meta—derived from Greek—means ‘alongside’, ‘with’, or ‘next’. Metadata records display a set of attributes used to describe context-specific resources such as the books in a library, or the items in an archive, according to metadata standards, which are context or discipline-specific. Traditionally, the main use of metadata has been in libraries and archives. Nowadays, metadata are used not only for classifying items in digital libraries and archives, but also to describe the main attributes of web pages and improve usability.

The main purpose of using metadata is to enhance information discovery. Achieving this goal becomes a complex task with the proliferation of digital collections and archives, especially when the aim is to improve information retrieval across multiple collections. Metadata harvesting enables information retrieval across multiple collections. It is an automated process by which metadata descriptions from various sources (for instance digital archives and libraries) are combined to design aggregated services. An important aspect for facilitating metadata harvesting is the development of protocols that can enable retrieval and aggregation of data over multiple archives of different kinds. The Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH), devised by the Open Archives Initiative, is a protocol used nowadays to facilitate the process by which metadata descriptions from various archives are collected and used to develop aggregated services. This process results in a registry or repository of metadata records developed on the basis of multiple archives or collections of data.

Sources

- Breeding, M. (2002). Understanding the Protocol for Metadata Harvesting of the Open Archives Initiative. *Computers in Libraries*, 22(8), 24–29.

2.60 Moral Rights/Droit Moral

2.60.1 International Context (Berne Convention 1886)

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

Sources

- Berne Convention for the Protection of Literary and Artistic Works, 1886. Available at http://www.wipo.int/treaties/en/text.jsp?file_id=283698

2.61 Motion Capture

The process of recording 3D movement (position, rotation, acceleration) of people and objects with the purpose of generating a 3D reconstruction of an event, happening, movement or performance. Motion capture is customized for a wide range of applications and industries from animation and entertainment to medicine and sports. Over the years, the systems and technologies that enable motion capture became more advanced and sophisticated, allowing for increased precision in motion rendering.

2.62 Multi-Faceted (Multicultural) Heritage

This concept acknowledges the diversity of heritage practices that form part of every society. Furthermore, it highlights the fact that within multicultural societies a diversity of heritage practices exists, as different cultural groups living within that society identify different cultural artefacts as part of their Cultural Heritage. The term multi-faceted (multicultural) heritage can be a political concept because of the potential political struggles involved in defining what are accepted heritage values within that society.

2.63 Multimedia Channels

Information transmission channels supported by digital technology and optimized for the transmission of multiple format content, for example combining audio, video and text. The terms ‘multimedia’ or ‘rich media’ denote the comprehensive combination of different media such as sound and moving image in a single piece of content.

2.64 Open Access

Gold open access: where the publication (usually a journal article) is made freely available to the user by the publisher in an open access journal at the point of publication.

Green open access: where the publication (usually a journal article) is made available in an open access repository and freely available to the user either at the point of deposit or after an embargo period.

2.65 Open Source

Refers to a method of developing software that relies on the distributed authorship of several software developers. The designation of a software as ‘open source’

needs to abide by a number of criteria. These include: free redistribution; access to source code; allow modifications and derived works; no discrimination against persons, groups or fields of endeavour; the licence must be generic, not specific to a product, not restrict other software and must be technology neutral.

2.66 Orphan Works

2.66.1 EU Context

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

2.67 Out-of-Commerce Works

Memorandum of understanding on the digitisation and making available of out of commerce works (MOU).

2.67.1 EU Context

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

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

2.68 Owner

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

2.69 Participation

In its traditional sense, ‘participation’ indicates attending an event or an initiative, or partaking in decision-making. This basic sense has gained richer and wider connotations in relation to contemporary participatory cultures, and has come to indicate public involvement or engagement in a wide range of activities and initiatives spanning the socio-cultural and the political sphere. ‘Cultural participation’ refers to attending or watching cultural events, but can also indicate proactive engagement with culture as interpreter, producer, and communicator. Digital technologies enable new modes of cultural participation, in which users are encouraged to engage actively in interpretation, manipulation, appreciation and co-creation of cultural content. For example, museum visitors can enrich their experience by creating and saving personal collections of favourite objects on the museum website, by contributing tags and metadata in a museum-run crowdsourcing initiative, or by blogging about a cultural event they have just attended.

Sources

- UNESCO (2009) Measuring cultural participation. Framework for cultural statistics handbook no. 2. Paris: UNESCO.

2.70 Participatory Art

Participatory art occurs when the audience is engaged directly in the creative process, (becoming then a co-creative process) allowing people to become co-authors, co-actors, co-editors—besides observers—of the work. This type of art is incomplete without the viewer’s direct interaction. Its intent is to challenge the dominant form of making art and culture in the West, in which a small class of professionals make the art while the public takes on the role of passive observer or consumer.

2.71 Performance-Based Cultural Heritage

Performance-based Cultural Heritage includes all activities that are generally within the broad family of ‘performance’, which includes dance, theatre, music and other performed events that might cross over those boundaries (such as opera, physical theatre, and contemporary practices such as ‘live arts’). Performance-based Cultural Heritage may in some ways be synonymous with ‘intangible Cultural Heritage’ because the heritage that is transmitted through generations is largely ephemeral and is communicated through the performer’s body in space and time, sometimes in conjunction with instruments and technologies, and in association with other artistic practices (such as set, lighting and costume design). Performance-based Cultural Heritage may be documented in multiple ways to

provide some access to the ‘work’, which may be through image, film, scores, texts, objects, performance posters and other forms of performance-related documentation.

2.72 Performer

A performer is an artist who uses a wide repertoire of bodily movements, speech, voice, acting, music, props and objects as a form of artistic expression directed to an audience. Examples of performers are actors, singers, musicians, and dancers.

2.72.1 Legal Framework, International Context

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

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

2.73 Present-Centred Heritage

Present-centred heritage describes heritage temporalities, with the understanding that heritage has a relationship with the past yet it is experienced and negotiated in the present. A present-centred approach to heritage acknowledges the politics, economics and differential power relations involved in what has been designated as heritage from the past and therefore what heritage is deemed worthy of preservation for the future.

2.74 Preservation

The term preservation defines those actions taken to care for or safeguard (something) against deterioration. When applied to Cultural Heritage, preservation may involve methods of minimising risk of loss, slowing physical deterioration, and optimising the conditions that ensure the maintenance of the integrity of the heritage asset. In this sense preservation is not only physical but may include methods to safeguard the information about a particular heritage object or practice,

including proper documentation through digital methods. Preservation is a future-oriented concept that seeks to safeguard an heritage asset for future generation. Preservation is sometimes used interchangeably with the term ‘conservation’.

2.75 Public Domain

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

2.76 Public-Private-Partnership (PPP)

Refers to any partnership between private-sector and public-sector entities, in which the partners invest different resources and cooperate for achieving a common goal. In the European Member States, PPPs are encouraged as a means to offer improved public services, a way to generate capital in times of economic restriction, and in general for capitalising upon the resources and capabilities of the private sector for contributing to overall socio-economic development.

Sources

- European Commission (2003) Guidelines for successful Public-Private-Partnerships. Available at: http://ec.europa.eu/regional_policy/sources/docgener/guides/ppp_en.pdf

2.77 Regeneration

A comprehensive and integrated vision and action which attempts to improve the quality of life for the benefit of everyone who visits, lives or works in an area—particularly an urban neighbourhood—which has become run-down as a result of socio-economic changes, and which seeks to bring about a lasting improvement in economic, physical, social and environmental conditions. Cultural Heritage is integral to the policy and practice of regeneration. For example, one important way to preserve and re-use the historic fabric of a city is to accommodate the creative and cultural industries and various arts and community groups in refurbished, architecturally-significant buildings.

2.78 Renewal

The process or processes of conceptualising, valuing and accessing Cultural Heritage in ways that revive, resuscitate, restore, or provide fresh and new approaches to conventional and traditional methods.

2.79 Re-use

The re-working of a copyright work in whole or in part to create something different. Where the re-use falls within a permitted use (such as for parody) then no permission of the copyright owner is needed. Where the re-use is beyond a permitted use, then permission is required.

2.80 Self-Organising Communities

‘Self-organisation’ indicates the emergence of order and structure in social, natural or physical systems in the absence of a centralising or regulatory authority. The concept of ‘self-organisation’ has been studied in physical, natural and social sciences, as well as computer science and cybernetics. Its defining feature is the capacity of a system to achieve order through collective mechanisms of mutual regulation of behaviour, decision-making, and exchanges among the system components or entities.

In social sciences, the concept is often set in relation to the one of ‘self-governance’. ‘Self-organising communities’ can refer to local or virtual/online communities. Self-organisation of local communities captures forms of local self-management and self-mobilisation for producing goods and services, engaging in collective action or driving social enterprises by rallying community-held resources to meet collective goals and needs. The defining feature is that these activities are conducted in the absence of state, governmental or administrative control, though states and governments can indirectly encourage these forms of self-organisation, for instance through incentives such as funding. The main actors are members of the civil society which can be self-organised citizen groups, or non-governmental organisations. Self-organisation relies on effective communication among members, to which purpose it is important to employ reliable communication channels, feedback mechanisms, and platforms for ensuring access to a shared knowledge base. Digital technology and the Internet play a fundamental part in creating and supporting self-organising groups, by offering these provisions and allowing actors to adapt tools and services to their needs.

Self-organising virtual or online communities display the same features of self-organisation around a shared interest or goal, and are distinguished by other forms of online communities by the way they adjust and organise their behaviour and exchange in the absence of a central regulatory agent.

2.81 Social Cohesion

Refers to concepts of social integration and the need to build strong social bonds and relationships between people from different backgrounds, often with the aim of addressing social tensions or alleviating inequalities within a single community. Although the term was first used theoretically in the early twentieth century, it has become more popular recently, especially within policy discourse, and particularly as it relates to questions of integration, citizenship and belonging, and the governing of citizens within multicultural societies.

2.82 Social Media

Refers to web-based tools, platforms and applications which enable users to create, co-create, share, comment upon, modify or otherwise engage with content over the Internet. There are a wide variety of social media sites and applications, many of these customized for mobile platforms. Kaplan and Haenlein (2010) propose a classification of social media sites according to three dimensions: social presence (the type of sensorial interaction afforded, e.g. visual, acoustic), media richness (amount of data transmitted in a time interval) and self-presentation/self-disclosure (the degree of freedom and control in creating one's personal cyber-identity). Text-based applications such as crowdsourced encyclopaedias (for example Wikipedia) and blogs score lowest with respect to social presence and media richness. Blogs and social networking sites such as Facebook score high with respect to self-presentation, as they allow users to express themselves and personalize the content they produce and share. Facebook, alongside video-sharing sites such as YouTube and Vimeo are also examples of platforms that afford high media richness. The highest level of social presence and media richness are afforded by virtual games and social worlds such as World of Warcraft and Second Life, which provide virtual replicas of real-life places and patterns of behaviour and interaction.

Social media are fundamental tools for contemporary participatory cultures both for their role in enabling access to information, and for supporting user-generated content-sharing, self-expression, co-creation and social interaction in virtual communities.

Sources

- Kaplan, A. M., and M. Haenlein (2010) Users of the world unite! The challenges and opportunities of Social Media. *Business Horizons*, 53(1).

2.83 Tangible and Intangible Cultural Heritage

'Tangible Cultural Heritage' refers to physical artefacts produced, maintained and transmitted intergenerationally in a society. It includes artistic creations, built heritage such as buildings and monuments, and other physical or tangible products of

human creativity that are invested with cultural significance in a society. ‘Intangible Cultural Heritage’ indicates ‘the practices, representations, expressions, knowledge, skills—as well as the instruments, objects, artefacts and cultural spaces associated therewith—that communities, groups and, in some cases, individuals recognize as part of their Cultural Heritage’ (UNESCO 2003). Examples of intangible heritage are oral traditions, performing arts, local knowledge, and traditional skills.

Tangible and intangible heritage require different approaches for preservation and safeguarding, which has been one of the main motivations driving the conception and ratification of the 2003 UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage. The Convention stipulates the interdependence between intangible Cultural Heritage, and tangible cultural and natural heritage, and acknowledges the role of intangible Cultural Heritage as a source of cultural diversity and a driver of sustainable development. Recognizing the value of people for the expression and transmission of intangible Cultural Heritage, UNESCO spearheaded the recognition and promotion of living human treasures, ‘persons who possess to a very high degree the knowledge and skills required for performing or recreating specific elements of the intangible Cultural Heritage’.

Sources

- UNESCO (2003) Convention for the safeguarding of the intangible Cultural Heritage. Paris: UNESCO.
- UNESCO (n.d.) Guidelines for the Establishment of National “Living Human Treasures” Systems. Paris: UNESCO.

2.84 Territorial Cohesion

The idea of ‘territory’ suggests a region, a jurisdiction, or an enclave; the term is also sometimes used to describe an area of knowledge, experience, or activity. Within a spatial demarcation certain specificities exist by which that region or territory is known or defined. These can be in the form of economic, social, cultural or environmental identification markers. In a small area, there may be governance which ensures uniformity of these markers, but over a larger territory or jurisdiction such as the European Union, there is a greater likelihood of disparities and imbalances. Territorial cohesion is thus a public policy approach that attempts to ensure the harmonious development of diverse landscapes, cultures and communities by facilitating the exploitation of the inherent features of those territories. As such, it is a means of transforming diversity into an asset that contributes to the sustainable development of Europe. The concept of territorial cohesion involves overcoming divisions stemming from administrative borders and seeks to build bridges between economic effectiveness, social cohesion and environmental balance.

Sources

- Commission of the European Communities (2008) Green Paper on Territorial Cohesion. Turning territorial diversity into strength. SEC (2008) 2550. Brussels. Available at: http://ec.europa.eu/regional_policy/what/cohesion/index_en.cfm

2.85 User-Generated Content

Content made available on the internet by a user who has either created new content or modified or aggregated a pre-existing work before uploading it. The content may be, but is not limited to, a combination of all or any of: video; photo/image/drawing/painting; music; audio (other than music); text; games (in particular video games); virtual objects.

Sources

- De Woolf and Partners (2013) Study on the application of Directive 2001/29/EC on Copyright and Related Rights in the Information.

2.86 Value

Refers to beliefs and standards accepted, endorsed and sanctioned by an individual, a community or a society about what is right, good, desirable or worthwhile to abide by or pursue in one's thinking, conduct and aims.

The notion of 'value' is of importance for Cultural Heritage from two standpoints.

First, cultural values reflect beliefs that represent or convey a social group's worldview with respect to fundamental ontological and epistemological aspects, such as the purpose of human life and the worthwhile pursuits of human knowledge and action. As such, cultural values are part of a society's cultural system. They are essential elements of cultural identity, a factor of distinction from different cultures, and a source of social cohesion when they are shared amidst members of the same culture, or there is reciprocal respect when more than one culture is involved.

Secondly, 'cultural value' refers to the value assigned to cultural goods and services. This value can be appreciated in relation to its symbolic, aesthetic, historical or spiritual significance, or quantified in terms of its economic utility or worth. Cultural goods and services can be attributed a joint cultural and economic value, which are interrelated, yet can be assessed separately. For instance, a religious artwork can have cultural value attributed to it on virtue of its being the legacy of a reputed sculptor, displaying unique aesthetic qualities, and representing an entity or a scene revered by believers. At the same time, an economic value can be assigned, quantified in the amount of its utility or the money it is worth at a given moment.

Sources

- UNESCO (2005) Convention on the protection and promotion of the diversity of cultural expressions. CLT/CPD/2004/CONF-201/2. Paris: UNESCO.

2.87 Video Processing

Video processing consists in signal processing employing statistical analysis and video filters to extract information or perform video manipulation. Basic video processing techniques include trimming, image resizing, brightness and contrast adjustment, fade in and fade out, amongst others. More complex video processing techniques, also known as Computer Vision Techniques, are based on image recognition and statistical analysis to perform tasks such as face recognition, detection of certain image patterns, and computer-human interaction.

Video files can be converted, compressed or decompressed using particular software devices. Usually, compression involves a reduction of the bitrate (the number of bits processed per time unit), which makes it possible to store the video digitally and stream it over the network. Uncompressed audio or video usually are called RAW streams, and although different formats and codecs for raw data exist, they appear to be too heavy (in bitrate terms) to be stored or streamed over the network in these formats.

2.88 Virtuality

Virtuality is commonly defined in opposition to the idea of reality or actuality, so that ‘virtual’ stands for and represents effectively a real object or phenomenon, or the potentiality of an actual object of phenomenon. Initially studied in philosophy, the concept has been appropriated in technology studies, giving rise to the notions of ‘virtual reality’, ‘virtual environment’, and ‘virtual world’. These terms capture the processes and technologies enabling simulation of physical reality and sensorial experiences, in which user interactions and engagement are supported by computer graphical interfaces or stereoscopic displays. ‘Virtual reality’ indicates both the enabling technologies and their applications in the creation of immersive 3D environments.

2.89 Virtual Performances

‘Virtual performances’ are performing arts productions in which interactive technology and virtual spaces are used to mediate or augment interactions among performers, between performers and the performing space, or between performers and the audience. A wide range of virtual performances can be enacted, depending on artistic intentions and the modes of technology integration. Technology-enhanced interactions are generally distinguished by the way they facilitate connections among one or several physical spaces, among different virtual spaces, or combinations of virtual and physical spaces.