SHARING IS CARING

Openness and sharing in the cultural heritage sector

Editor
Merete Sanderhoff

SMK
Statens Museum for Kunst
National Gallery of Denmark

Sharing is Caring

SHARING IS CARING

Openness and sharing in the cultural heritage sector

Editor
Merete Sanderhoff

Contributors
Michael Peter Edson · Merete Sanderhoff · Jill Cousins
Martin von Haller Grønbæk · Henrik Jarl Hansen
Christian Ertmann-Christiansen · Tobias Golodnoff
Miriam Lerkenfeld · Lars Lundqvist · Jacob R. Wang
Shelley Bernstein · Sarah Giersing · Lise Sattrup
Nana Bernhardt · Jasper Visser · Nanna Holdgaard
Bjarki Valtysson · Ditte Laursen · Lars Ulrich Tarp Hansen
Theis Vallø Madsen · Lene Krogh Jeppesen · Peter Leth

Statens Museum for Kunst, Copenhagen

Sharing is Caring 2014
Openness and sharing in the cultural heritage sector

Chief editor: Merete Sanderhoff
Publishing editor: Sven Bjerkhof
Graphic design: Narayana Press, Odder
Translation from English to Danish: Néné la Beet
Translation from Danish to English: René Lauritsen
Proof reading: Kirsten Nauja Andersen
Images: All images carry Creative Commons licenses. Licenses are specified underneath each individual image.
Repro, print, and binding: Narayana Press, Odder
Typography: ITC Slimbach and Source Sans Pro
Paper: Arctic matt 90 g (inside pages) and Invercote 270 g (cover)

ISBN 978-87-92023-62-9 – English version

Outside cover: The Foyer Stage, DR Concert Hall, the venue of Sharing is Caring 2012. Photo CC BY 2.0 Merete Sanderhoff.
Inside cover: Studio 4, DR Concert Hall, the venue of Sharing is Caring 2011. Photo CC BY-SA 2.0 Lars Lundqvist.

sharingiscaring.smk.dk

Published by Statens Museum for Kunst, Copenhagen
Supported by the Danish Agency for Culture

SMK
Statens Museum for Kunst
National Gallery of Denmark

KULTURSTYRELSEN

Table of Contents

Foreword

"Seid umschlungen Millionen! Diesen Kuß der ganzen Welt!"
Friedrich von Schiller, 1785

The Age of Enlightenment fostered dreams of a united humanity, building on knowledge, education, and equal access to participating in society and culture. With digital technologies, we have stepped closer to fulfilling that dream. Millions, even billions, of people across the globe are connected by the Internet, where they have access to communicating, learning, exchanging, developing, creating, and sharing with each other. Enlightened ideas remain at the core of the cultural heritage sector today. How do we embrace this unique opportunity to make our institutions and work truly support a connected world? The anthology before you is an attempt at that vast and complex question.

The term 'Sharing is Caring' has caught on in a wealth of contexts, from charity projects to file sharing services. What specific meaning and value does it have in a cultural heritage context? Cultural heritage belongs to everyone. It was created by – and for – all kinds of people. The digitisation of physical heritage objects enables them to move out of storage rooms, library shelves, and file drawers, and land in the hands of the worlds' citizens. When cultural heritage is digital, there is nothing standing in the way of sharing and reusing it. It can be sampled, remixed, embedded, it can illustrate new stories and move into new media, it can adorn books, posters, and public spaces, advance research and make ideas and creativity blossom. When cultural heritage is digital, open and shareable, it becomes common property, something that is right at hand every day. It becomes a part of us.

BACKGROUND

- This anthology springs from the Sharing is Caring seminars 2011 and 2012. The speakers have converted their presentations into articles, reflecting the diverse formats of the seminars – from keynotes to ignite talks. And as the organizer, I have been able to contribute a more comprehensive article about the global tendencies which incited the seminars, and which have driven the development at my own institution.*
- The anthology spans a wide range of themes and approaches. It contains contributions from museum professionals, scholars, public sector administrators, a lawyer and a school teacher. The red line through it all is an urge to explore the new opportunities to open up and share knowledge and resources, which digitisation brings about.
- A few of the speakers have not been able to contribute to the anthology. However, all talks from the Sharing is Caring seminars have been recorded and can be accessed at http://vimeo.com/channels/sharingiscaring
- The anthology carries the Creative Commons license CC BY 4.0 http://creativecommons.org/licenses/by/4.0/ This means that all of its content may be shared, sampled, and reused in new contexts, as long as you attribute the source.**

* My article has a relatively long introduction, giving an account of my professional background and specific approach to what I call 'digital museum practice' (p. 23-31). Readers, who wish to move directly to the case study examining the development of digital museum practices at Statens Museum for Kunst, are recommended to start reading on p. 31.

** A few of the illustrations carry different Creative Commons licenses which will show beneath the individual images. Read more about the various licenses employed in the anthology on p. 264.

Thanks

My warmest thanks to everyone who has contributed to making Sharing is Caring an important hub for knowledge sharing and development in the Danish cultural heritage sector. Thanks to Charlotte S. H. Jensen, Axel Harms, Ditte Maria Bergstrøm, Jonas Heide Smith and Mikkel Thelle for ideas and sparring for the concept and programme. Thanks to all the speakers: Michael Edson, Shelley Bernstein, Jasper Visser, Jill Cousins, Martin von Haller Grønbæk, Lars Lundqvist, Bo Weymann, Jacob R. Wang, Tobias Golodnoff, Miriam Lerkenfeld, Henrik Jarl Hansen, Christian Ertmann-Christiansen, Lars Ulrich Tarp Hansen,

Sarah Giersing, Ellen Pettersson, Lene Krogh Jeppesen, Ditte Laursen, Peter Leth, Theis Vallø Madsen, Lise Sattrup, Nana Bernhardt, Bjarki Valtysson and Nanna Holdgaard for enlightening and inspiring us. Not least, thanks to my co-organizers from ODM: Hans Henrik Appel, Sofie Paisley, Nils M. Jensen and Lotte Hviid Dhyrbye, from DR: Tobias Golodnoff, Miriam Lerkenfeld and Birte Lykke Rabjerg, and from MMEx: Pernille Lyngsø, Mie Ellekilde and Lone Hedegaard Kristensen, for turning the many good ideas into reality.

Thanks to great advisors and sources of inspiration: Allegra Burnette, Lizzy Jongma, Jesse Ringham, James Davis, Shelley Bernstein, Nina Simon, Michael Edson, Hein Wils, Loïc Tallon, Lars Lundqvist, Martin von Haller Grønbæk, Peter Leth, Jacob Wang og Charlotte S.H. Jensen for being ready and willing to offer your generous advice, guidance, and friendship.

Thanks to all my amazing colleagues at Statens Museum for Kunst for unfailing helpfulness and trust: Sarah Søgaard Grøn, Mette Houlberg Rung, Pernille Feldt, Sven Bjerkhof, Mathilde Schytz Marvit, Annette Rosenvold Hvidt, Henrik Holm, Anne Skovbo, Axel Kellermann, Christopher Pott, Sebastien Brossard, Thorbjørn Wulf, Kim Brasen, Frederik Henrik Knap, Nikolaj Recke and all the art pilots, and not least our responsive, bold, and foresighted executive group.

Thanks to wonderful colleagues from other institutions for rewarding collaborations and inspiring dialogues: Lisbeth Lund, Birgitte Kirkhoff Eriksen, Nina Damsgaard, Jonna Nielsen, Trine Grøne, Dagmar Warming, Gertrud Hvidberg-Hansen, Tina Anette Madsen, Lene Bøgh Rønberg, Stig Miss, Bettina Weiland, Marianne Saabye, Jan Gorm Madsen, Anna Scram Vejlby, Lars Ulrich Tarp Hansen, Rolf Källmann, Johanna Berg, Joris Pekel, Harry Verwayen, Nick Poole and Sam Leon.

Thanks to outstanding external partners: Morten Schjødt, Mattias Bodlund, Morten Westermann and Lone Jacoby from Oncotype, Mimi Larsson from the Copenhagen Metro Company and Christine Sørensen from Google Denmark, for all the things we have built together. Thanks to the #Twitterbrain, and helpful, smart users – especially Rikke Mosberg, Peter Soemers and Rikke Baggesen.

Thanks to Mai Misfeldt and Morten Nybo for putting important material and images at the disposal of this publication.

A warm thanks to the Danish Agency for Culture and Nordeafonden for generous support and great confidence in our work.

Once again, a very special thanks to Michael Edson for incomparable and invaluable support, guidance, and feedback in the entire making of this anthology.

Finally; thanks to Jens for being the core from which everything grows. < 3

Merete Sanderhoff
Copenhagen, January 2014

[1] Franz Helm (ca. 1500-1567), Treatise on artillery and gunpowder, Southeast Germany, late 16th century, Manuscript on paper, in ink and paint, fol. 125v, LJS 254, Lawrence J. Schoenberg Collection, Kislak Center for Special Collections, Rare Books and Manuscripts, University of Pennsylvania, CC BY 4.0.

Boom

MICHAEL PETER EDSON, DIRECTOR OF WEB AND NEW MEDIA STRATEGY, SMITHSONIAN INSTITUTION

Michael opens this anthology by establishing why it is crucial for the cultural heritage sector to seize the opportunity offered by the Internet and digitization to reach global populations and make a difference in their lives. Through many years of pioneering efforts within the field of digital technologies, and generous sharing of expertise and advice, Michael has inspired institutions worldwide to dare working more openly and inclusively with the users' knowledge and creativity.

My job in this essay is not about tact or charm. My job is to sail a gunboat up your river and fire a warning shot over your city.

Boom.

The future is here. What are you going to do?

I gave my talk about "going boldly into the present" and the urgent need for change at the first Sharing is Caring conference in November, 2011 – more than 700 days ago. During those 700 days, most museums, libraries, archives, and cultural organizations didn't change much: if you visited one in 2011, met with the staff, and returned again today, you would be hard pressed to detect a significant difference. Many of the biggest and best organizations were working on new strategies in 2011, carefully measuring their steps into the digital age, and many of those plans have not been finished or implemented. Others spent the last 700 days on small digital experiments without risking much, asking much, or expecting much in return. And while we were in committee meetings, plotting our slow, careful course, the future changed – accelerated and

crashed into us – and the world in which we need to succeed became something else.

In the 700 days since my talk, the world's population grew by 140 million people – 200,000 individuals a day – each with the right to be educated; each with the right to access and shape their culture. 476 million people became new Internet users in the last 700 days, and 872 million people – more than the entire population of the European Union nations, Canada, and the United States combined – became new mobile phone subscribers. Facebook enrolled its one billionth member last year. Facebook is only ten years old, but if it were a country, it would now be the third largest nation on earth. Wikipedia, approaching its two billionth edit, is barely a teenager.

The cost of a computer chip – perhaps the most disruptive technology ever made – fell by *half* in the last 700 days. Computer chips have become 50% cheaper (or two-times more powerful) every 700 days for the last 50 years, and they are expected to keep doing so at least through mid-century, at which point they will be so cheap and powerful that if I were to describe the societal implications here you would likely stop reading this essay in disbelief.

The exponentially falling cost and rising power of computer chips also has a short-term consequence: it makes Internet access and technology affordable to more people. 2.4 billion people, 34% of humanity, are now online and connected. Even in the poorest parts of the world, it is not unusual to see pushcart vendors, rickshaw drivers, and even beggars with cell phones.

India, the world's largest democracy, has a new "virtual middle class" of 300 million people who are profoundly poor, but who, for the first time, are claiming their full rights as citizens because they are connected to the Internet and can interact with government and fellow citizens as easily as their richer, more educated neighbors. 40,000 people from 113 countries just took *Introduction to Sociology*, online, for free, from Princeton University. 830,000 people from over 180 countries have contributed time and effort to citizen science projects through the Adler

Planetarium's *Zooniverse* website. The citizens of Iceland are crowdsourcing a new constitution. Users have translated the Mona Lisa's Wikipedia page into 89 languages. The National Gallery of Denmark's website features comments from Germany, Russia, Spain, New Zealand, India, South Africa, the Philippines, Egypt, Libya, Turkey, Nigeria, Indonesia, and the United Kingdom: On one group of pages about the masterpieces of Danish art, comments by Danes are outnumbered by comments from other countries by 35:1.

Everywhere I look, I see the old rules about who has a voice, who does the work, and who gets to benefit being re-written on a global scale. It is amazing, but what surprises me most… is that we find it surprising at all. We have wanted this since the Enlightenment.

Our institutions are founded on the principle that knowledge and culture belong to everyone; that we will be a stronger, wiser, more resilient society if citizens understand their history; understand science – if they engage, ask questions, converse, learn, challenge, create, and do. We believe that culture isn't something frozen in amber: culture only has meaning when it is alive in our minds, re-worked by our hands, and loved in our hearts.

While we've been in committee these last 700 days, advancing at the scale and speed of yesteryear, the next 700 days began. The future is ready for us now; hungry for our resources, craving our expertise, listening for what we have to say. It is our obligation – our *privilege* – to respond and serve. A few brave institutions lead the way, but even they must race to keep up.

And just outside the committee room – beyond the exhibition galleries; past the library stacks, classrooms, labs, and archives – another question looms: It isn't what we do now that there are 2.4 billion of us online, it's what will happen when the next 5 billion people join us.

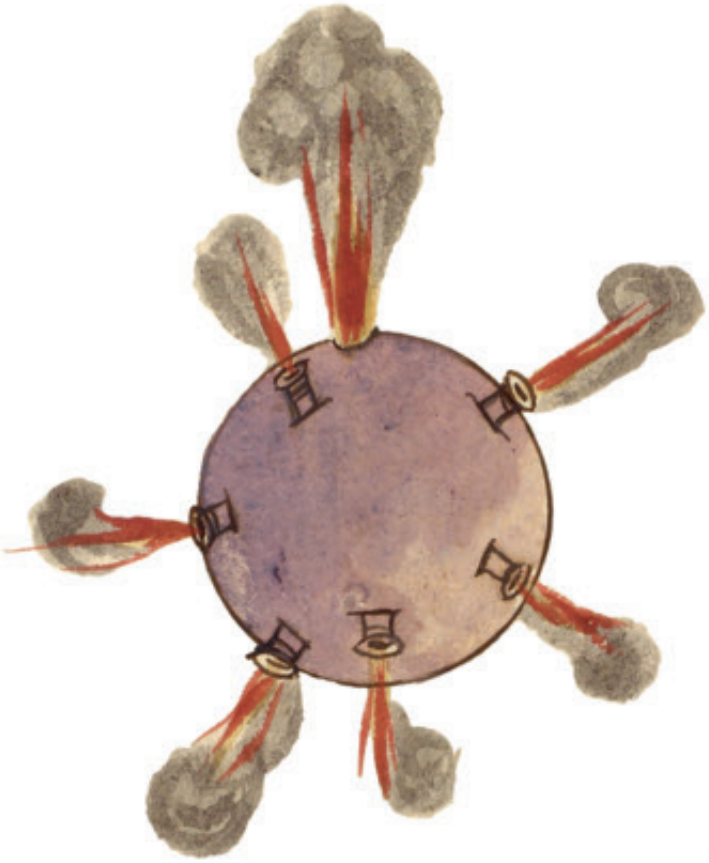
Boom.

Let's get to work.

"I gave my talk": See slides and a transcript of the talk, *Let Us Go Boldly Into The Present, My Brothers and Sisters*, at http://www.slideshare.net/edsonm/michael-edson-let-us-go-boldly-into-the-present-text-version, and the video at https://vimeo.com/4324096/2

"the world's population grew by 140 million people": 140 million is the rise in total global population, not to be confused with new births. Population data (as of mid-year, 2013) from US Census Bureau International Data Base, http://www.census.gov/population/international/data/idb/informationGateway.php.

[2] Michael Edson, Adaptation of Franz Helm's "Treatise on artillery and gunpowder" (Rare Book & Manuscript Library University of Pennsylvania LJS 254), 2013, CC BY 4.0



"each with the right to be educated": Statements about the educational expectations and the right to access and shape culture are direct references to the United Nations' Universal Declaration of Human Rights, first adopted in 1948, http://www.un.org/en/documents/udhr/index.shtml, accessed 9 May 2013.

New Internet and mobile phone users: Aggregate Internet and mobile phone data from International Telecommunications Union "2006-2013 ITC data for the world" spreadsheet at http://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx, accessed 1 May 2013.

"Facebook enrolled its one billionth member": "Revealed: The third largest 'country' in the world – Facebook hits one billion users" by Rob Williams, 4 October 2012, http://www.independent.co.uk/life-style/gadgets-and-tech/news/revealed-the-third-largest-country-in-the-world--facebook-hits-one-billion-users-8197597.html, accessed 1 May 2013.

"Wikipedia, approaching its two billionth edit": Total edits in Wikimedia projects: http://toolserver.org/~emijrp/wikimediacounter/, accessed 1 May 2013.

"The cost of a computer chip": Think in terms of computers the size of bacteria. By mid-century, a $1,000 personal computer is likely to have a billion times more processing power than the combined brains of every person on earth. Kaku, Michio, *The Physics of the Future: How Science Will Shape Human Destiny and Our Daily Lives by the Year 2100*, 2010, Doubleday, New York, p. 117. The doubling of the number of transistors that can fit on a computer chip every 18-24 months is known as Moore's Law: I use 700 days as the period of doubling, roughly 23 months.

2.4 billion people online: Aggregate Internet and mobile phone data from International Telecommunications Union "2006-2013 ITC data for the world" spreadsheet at http://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx, accessed 1 May 2013.

"Vendors, rickshaw drivers, and even beggars": This is derived from a comment by journalism professor Dr. Jack Zibluk, 3 February 2013, on the article *The Virtual Middle Class Rises*, By Thomas L. Friedman, 2 February 2013, New York Times, http://www.nytimes.com/2013/02/03/opinion/sunday/fried-

man-the-virtual-middle-class-rises.html?smid = pl-share, accessed 1 May 2013. Though there are six billion cell phone subscribers worldwide, most of these are simple "feature phones" that can send and receive SMS messages, but do not have Internet access. Falling chip prices are expected to bring Internet ready smart phones with cameras, video, GPS, WiFi etcetera within reach of current feature phone users in the not-too-distant future. A general discussion of this topic can be found in Eric Schmidt and Jared Cohen's *The New Digital Age: Reshaping the Future of People, Nations and Business* (Alfred A. Knopf, 2013), particularly in the introduction, pp. 4-8.

India's virtual middle class: The Virtual Middle Class Rises, by Thomas L. Friedman, published 2 February 2013, New York Times, http://www.nytimes.com/2013/02/03/opinion/sunday/friedman-the-virtual-middle-class-rises.html?smid = pl-share, accessed 1 May 2013.

Introduction to Sociology: Mitchell Duneier, the professor who taught this course, wrote: "When I give this lecture on the Princeton campus, I usually receive a few penetrating questions. In this case, however, within a few hours of posting the online version, the course forums came alive with hundreds of comments and questions. Several days later there were thousands … Within three weeks I had received more feedback on my sociological ideas than I had in a career of teaching, which significantly influenced each of my subsequent lectures and seminars." *Teaching to the World From Central New Jersey* by Mitchell Duneier, Chronicle of Higher Education, 3 September 2012 http://chronicle.com/article/Teaching-to-the-World-From/134068/, accessed 6 May 2013.

Zooniverse: Http://zooniverse.org. "Over 180 countries" is from 8 May 2013 correspondence with Arfon Smith, Director of Citizen Science, Adler Planetarium.

Iceland crowdsourcing a new constitution: See "Iceland is Crowdsourcing Its New Constitution", 10 June 2011, http://www.good.is/posts/iceland-is-crowdsourcing-its-new-constitution/?utm_content = image&utm_medium = hp_carousel&utm_source = slide_4, accessed 6 May 2013.

The Mona Lisa's Wikipedia page: http://en.wikipedia.org/wiki/Mona_Lisa, accessed 9 May 2013.

"The National Gallery of Denmark's website": Candidates for Google Gigapixel, National Gallery of Denmark (Statens Museum for Kunst), 20 November 2012, https://plus.google.com/photos/+StatensMuseumforKunst/albums/5812929202671334753, accessed 7 May 2013. Note that these pages are are on the gallery's Google+ site, not under the gallery's main smk.dk domain, but they are under the gallery's full editorial control and I'm therefore depicting them as being part of the National Gallery of Denmark "website." Of the 56 comments on this group of web pages, three comments were made by two individuals who identified themselves as living in Denmark; one of those is an employee of the gallery.

This belongs to you

On openness and sharing at Statens Museum for Kunst

MERETE SANDERHOFF, CURATOR OF DIGITAL MUSEUM PRACTICE, STATENS MUSEUM FOR KUNST

The most expansive essay of the anthology tells the story of six years' of basic research in digital museum practice at Statens Museum for Kunst. During this period the museum has had unique opportunities to experiment with digital media and explore new ways of activating the collections and involve users in the work. In the process, free and unrestricted access to digitised cultural heritage has become a top priority. This is the story of how Sharing is Caring came into being.

1. INVENTING THE DIGITAL WHEEL

"However far modern science and technics have fallen short of their inherent possibilities, they have taught mankind at least one lesson: Nothing is impossible."

Lewis Mumford, *Technics and Civilization*, 1934

Do you remember your first mobile phone?

How heavy was it? Did it have buttons? A visible antenna? Did it have a camera? Was it online?

Back in the 1980s my father, who is a furnace technician, had an Ericsson mobile phone in his service van. This was back before the network went digital. The telephone itself consisted of a large black box, a so-called relay station, mounted on the front panel of the car; the box was connected to the handset by a spiral wire. Today we would hardly classify this as a mobile phone. But it allowed customers to reach my father instantly, even when he was out on service calls. Some years later that mobile phone would be pressed into service during the Gulf war 1990-91. The American forces were keen to have any surplus mobile phones with relay stations and even offered to pay for them, so my father's phone was replaced by a new Ericsson HotLine model with a market value of $4,400, which was wireless and weighed less than a kilo. [1]

Most of us have an anecdote like this to tell. When I think about my father's first mobile phone and look at my own present-day smartphone I see an example of incredible technological development and evolution. Digital technologies are exerting ever greater influence on life in all its aspects – right from the Danish NemID digital identification scheme to the bike ticket I

[1] A selection of mobile phones from the Ericsson brand 1990, displayed by head of research Nils Rydbeck and campaign manager Flemming Örneholm. The new Hotline model, which my dad received in exchange for his old mobile phone, is the one that Mr Rydbeck is holding in his hand.

bought on the train this morning via my smartphone. If I want to know anything about the history of the mobile phone, or if I have forgotten whether Vivaldi wrote his last opera in 1737 or 1739, I simply Google my inquiry on my smartphone. In seconds the entire accumulated knowledge of the Internet is at my fingertips.

I am used to that now. I wasn't just a few years ago. Just as I was not used to posting status updates, to taking pictures with my telephone, instantly sharing them with my network, holding Skype meetings with people I have never met in real life, sharing work documents in the "cloud", using Twitter to actively participate in conferences that take place halfway across the globe, being able to watch whatever obscure music video happens to spring to my mind while commuting, verifying that I've used a stock phrase correctly by checking the number of hits it has on Google, or finding new inspiration for tonight's dinner on my mobile rather than in a cookbook. [2]

I note that my personal habits and expectations are constantly changing as new technologies become available. And I have no idea what habits I will adopt in future. I bring this awareness with me to work every day at Statens Museum for Kunst (SMK), the National Gallery of Denmark and the country's main museum of art. Perhaps museums are not the first things that spring to mind when you think of ongoing and restless change; rather, they tend to be associated with tradition and permanence. [3] We work with cultural heritage; one of our key tasks is to safeguard objects from the past along with the memories and meanings that go with them, preserving them for future generations. However, the ways in which we do that must be in keeping with life as it is lived outside the museum walls. When we try to envision the things we might experience and do at museums in the future our imaginations are, quite naturally, hampered by the constraints of our present-day experience. If someone had said, 25 years ago, that we could now access the collections at MoMA by swiping the surface of a mobile phone we would have dismissed the very

[2] The American internet expert Clay Shirky describes this phenomenon as 'the basic truth about technology': "…if a tool is useful, people will use it. (Surprise). They will use it even if the tool is very different from what existed before, provided it lets them do things they want to do." (Shirky, 2010, p. 100)

[3] "It would be foolish to consider museums as unchanging but their very existence implies commitment to stasis. Museums were established to capture and concretise progress – to gather up things as they became known and valued and keep them unchanged. By keeping real things they gave knowledge an underpinning framework and as such they became a pervasive networked technology which interlinked this knowledge and assured the visitor of its veracity. We may now ask 'Whose truth?' and question the practice in a multitude of ways, but nevertheless this empirical attitude remains fundamental to what museums are." (Knell, MacLeod and Watson, 2007, p. xix.)

notion. So what might we be able to do 25 years from now? Making predictions is difficult, but it will always be useful to monitor the latest developments with an inquisitive and open mind, actively helping to shape and direct them so that new technologies support and strengthen our mission and our role in society. Technology should not govern the museums' work. But in order to learn and understand how we can use new technologies and benefit from the opportunities they open up to us we must explore and incorporate not just the technologies themselves, but also the changes in behaviour and expectations they prompt in users. We must think *like users*.

Catalysts for user creativity

GLAM. That is one acronym you'll remember. GLAM is short for Galleries, Libraries, Archives, Museums, a sizable portion of the cultural heritage sector. In just a few years GLAM has become the umbrella term for what is also called Memory Organisations. The concept of GLAM has been consolidated via digital initiatives such as Europeana, the EU Commission's joint portal to European digitised libraries, archives, and museums; The Digital Public Library of America, a US equivalent initiated by Harvard University; and GLAM-Wiki, which cooperates with cultural institutions worldwide to share digitised resources on Wikipedia.

At present the international GLAM sector is confronting rapid and radical developments in the media, platforms, and channels used by us all. Over the course of a few decades, the Internet and social media have turned firmly established practices and roles upside down. Audiences have become users who may no longer be satisfied with passively receiving information and content; they have become accustomed to participating actively themselves, contributing their own knowledge, attitudes, and creativity. All this has created the basis for OpenGLAM, an international grassroots movement which endeavours to make openness the standard for the GLAM sector and to establish

OPEN
GLAM

[4] OpenGLAM originates from the global non-profit organisation The Open Knowledge Foundation, which works to ensure the free access and movement of knowledge. OpenGLAM established a set of universally valid principles for what signifies an open GLAM institution: "Galleries, libraries, archives and museums have an important role in supporting the advance of humanity's knowledge. They are the custodians of our cultural heritage and in their collections they hold the record of humankind. The internet affords cultural heritage institutions a radical new opportunity to engage global audiences and make their collections more discoverable and connected than ever, allowing users not only to enjoy the riches of the world's memory institutions, but also to contribute, participate and share." http://openglam.org/principles/

shared principles for a new OpenGLAM practice based on the culture of sharing found within the social Internet. [4]

Here, openness should be regarded in two ways:

- An open and welcoming attitude towards the users' approaches and contributions to the work of GLAM institutions (such "user involvement" encompasses popular designations such as *crowdsourcing*, *crowdcuration*, *citizen science, citizen exploration* etc.)

- Open access to the museums' digitised assets in the form of images, data, etc.

This article is mainly concerned with the latter aspect – which can, indeed, also be viewed as a prerequisite for the former.

The GLAM sector constitutes the overall context for this article, with special focus on the M for Museums. Statens Museum for Kunst (SMK) is the specific case studied, and the subject under particular scrutiny is the slow incorporation of OpenGLAM principles into SMK's DNA. The central leitmotif – which can be traced from the article's introductory bird's eye view of the challenges and potentials faced by the GLAM sector today all the way through to the presentation of the specific case – is that we must take on a new role as catalysts of the users' knowledge and creativity. In order to achieve this we need a new foundation for our work, one that comprises digital infrastructure and a digital mindset in equal measure. This article addresses how these foundations are currently being built, bit by literal bit, at SMK.

The literature serving as the basis for this article reflects a GLAM sector in the dazzling sidelight cast by external sources. References are made to Lawrence Lessig, Clay Shirky, Chris Anderson, Tim O'Reilly, Don Tapscott, and Anthony Williams – some of the most well-established thinkers within Internet culture and economics. Their analyses of new scenarios for development

and growth, for the production of knowledge, information, and culture have come to define how the Internet and digital media are described and perceived worldwide. Many of these writers are American, but their analyses have won global acclaim and use: The Long Tail, Social Media, Crowdsourcing, Cognitive Surplus, and Wikinomics are now firmly established concepts used across the world about the Internet, digital media, and the ways in which they affect our culture, economy, and self-image.

On foreign turf

This article presents six years of studies in, and development of, digital museum practice at SMK. Here, 'digital museum practice' encompasses museum work that uses digital tools or is realised on digital platforms – i.e. everything from entering artworks into collection databases, digitising works, building websites, developing digital presentation and interpretation efforts in the galleries, to webcasts of museum events, and the use of social media. Over the course of these six years I have worked as a project researcher at SMK, focusing on the digital presentation of the museum collections. During this period, openness and sharing have won increasing attention as strategic options for the cultural heritage sector. This has become a focus area for my studies and has been translated into a range of initiatives intended to demonstrate the potential inherent in transforming SMK into an OpenGLAM institution.

Let me be entirely honest; I'm not on my home turf here. My professional qualifications consist of a degree in Art History, and I have no digital background – neither practical nor theoretical. My university thesis described how a canon of art history is established and changed over time, leading to a critical analysis of the exertion of power that a canon imposes on the art scene – and, very importantly, how this can reduce diversity in contemporary art.[1] At first glance this subject may seem miles apart from the digital field that has now become my professional

focus at SMK. Nevertheless, a red line connects my background in canon criticism – a critique of the power structures determining what is included in and excluded from art history – to the ways in which digitisation and the Internet allow open access for everyone. My fundamental position is that museums should always endeavour to present art in all its diverse manifestations and be in constant dialogue with the surrounding world about which decisions inform their collecting and curating practices – what is on display and what is put away, and why. My work at SMK has slowly revealed the potential of digital media to me. Piece by piece I have found that the Internet offers almost ideal opportunities for realizing the paradigm of diversity that I described in my thesis, long before digital media became a central part of my profession. As a result, I have dedicated my efforts to the core task of exploring and developing digital museum practice that can bring my profession – art history – into a strengthened position in the digital media culture of the 21st century. "Sharing is Caring" has become my professional stance; I see tremendous potential in the GLAM sector sharing digitised collections without restrictions, co-operating rather than competing, and demonstrating trust in our users and respect for their knowledge and creativity. And, very importantly, in the realisation that what does not regenerate, will degenerate. [5]

During my time at SMK, I have noted increasing political expectations that state-subsidised museums co-operate, share their digitised assets, and incorporate user perspectives in an ongoing interplay with a new social Internet culture. Often, this is a requirement to gain access to state funds. As the nation's main art museum, SMK has a special obligation to act as co-ordinator and guide for other Danish art museums.[2] In other words, I have a pragmatic approach to the technological development and how it affects my profession. Having said that, my professional background in art history has also presented something of a challenge at times. In Plato's *Symposium* Aristophanes relates how man searches for his complementary half. Similarly, my position as an art historian occupying a job within the digital

[5] As Clay Shirky says about the opportunities created by Internet-based society: "The opportunity before us (…) is enormous; what we do with it will be determined largely by how well we are able to imagine and reward public creativity, participation, and sharing." (Shirky, 2010, p. 212)

field makes me painfully aware that my professional qualifications only meet some of the real requirements of the job. At times I have felt that, with my limited insights into the realms of technology, I have been trying to reinvent a wheel that had long since been developed and put into production by someone else. At the same time, however, my background in art history has allowed me to fulfil an important role at SMK, bridging the gap between traditional and new approaches to museological work.

My work on examining and developing digital museum practice has not rested on any formal theoretical basis. Digital museum practice was not defined from the outset as a proper professional field at SMK; rather, it has been perceived as an experiment, an add-on supplementing the museum's core activities. Classic parameters of academic study, such as choosing a specific method and carefully delimiting the area of study, were not defined from the outset; such issues have gradually come up and been addressed on an ongoing basis. Indeed, rather than research, my real task was practical in scope: Creating a vivid and engaging presentation of the SMK collections online. As this article will show, this task would expand and change along the way. This has created unforeseen challenges. The strategy at SMK has been to try out various digital media and platforms in order to learn from specific experiences. I am not an expert on digital infrastructure, copyright, or business models. Even so, over the course of the last six years I have ventured into these fields because they create new opportunities for the ways in which museum work is conducted.

Mutable practices

The process at SMK is in no way unique. GLAM institutions across the world are trying out various digital technologies, platforms, and working methods; they experiment, share the lessons learned, and seek to adapt to their users' changing needs and expectations. There are no firm guidelines in place for digi-

tal museum practice for the simple reason that the field is still in its infancy and undergoing rapid development. Knowledge about the wildly prolific field of digital media and technologies and how they can be used in a museum context is very much generated through DIY learning. [6] A surprisingly large number of people working with digital media in the GLAM sector are DIY learners. Our ranks include everything from artists to anthropologists to experts on English literature – but we rarely have formal IT qualifications on our diplomas. [7] This is first and foremost a pragmatically focused field, but even if it had been more academically inclined, the field is moving too quickly for traditional print publishing to keep up. For those reasons most of the sources for my studies are not traditional printed publications, but a wide range of wikis, blog entries, tweets, emails, presentations shared via Slideshare, online videos and interviews, etc. It is a liquid, expansive body of information and insights.

Digital museum studies is an emergent academic discipline, with Digital Heritage at Leicester University being the most firmly established example, and Digital Humanities constituting a wider, interdisciplinary field of study that looks poised to gain influence in the GLAM sector in the years to come.[3] However, digital work is still quite far away from being an established professional discipline within practical museum work – certainly in a Danish context – which means that most of the work is done on a project basis and only slowly finds its way into the operating budgets. Pioneers within the field have paved the way for 'best practices' by being the first to adopt new technologies, media, methods, platforms, and tools in their museum practice; by demonstrating value, benefits, and drawbacks; and by sharing their experiences with international peers. At SMK we have sought to learn from and build upon these pioneering efforts, but as yet the specific examples are so scattered – and the variations between the institutions so great in terms of size, collection area, user demographics, etc. – that it can be difficult to simply transpose a given practice from one museum to another. The

[6] DIY is the commonly used three letter abbreviation for Do It Yourself. The term is used for just about everything, from laying out a rosebed to education at university level. In Internet culture it is used about people who educate themselves within a subject or a trade using openly available resources (Open Educational Resources, or OER), e.g. young people who want a university degree but can't afford it, and people of all ages who wish to better themselves within new knowledge areas or acquire practical skills. Read more about the DIY phenomenon in Anya Kamenetz' publications DIY U http://diyubook.dk and The Edupunk's Guide http://edupunksguide.org.

[7] Michael Edson expresses it like this in a panel debate at the seminar The Commons and Digital Humanities in Museums: "There's a whole generation of us who were doing other things – some of them quite expertly – when the Internet got really, really interesting. There was no formal training. The job I have did not exist ten years ago, let alone twenty years ago." http://www.youtube.com/watch?v=WiyRO7t8EFE More on the same topic in "What is a museum technologist anyway?", Museums and the Web 2013. http://rjstein.com/what-is-a-museum-technologist-anyway/

cases I use to elucidate the process at SMK come from the international GLAM sector, and together they present a picture of scattered developments. Some of the most extensive examples come from American GLAM institutions, as well as museums in The Netherlands, Great Britain, and Australia. Furthermore, the Internet and digital technologies are only just now reaching a level of maturity where their potential can truly unfold itself in substantial and sustainable ways. Only now have they become ubiquitous in our everyday lives, always at hand and utterly indispensable.

Setting up digital museum practice at SMK has in itself been a DIY process. The process has received only limited managerial direction; the museum has no digital manager equivalent to its head of research and head of education. Rather, our work has taken the form of practical field studies and concrete development, driven by a desire to explore digital technologies and media, and how we can use them in our museum practice. Our method has consisted in thinking big, starting small, and moving fast, all based on the tenet "Fail Forward".[4] We have made a virtue of experimenting with new technologies and platforms that we found interesting, not always knowing exactly where they would take us. For us, it was crucially important to let digital technologies and media become a part of our everyday work life, to learn what they can – and cannot – do, using this insight to prompt further development in directions that support our mission.

We have learned a lot from this process, but at times it has been an expensive way of growing wiser. The approach has given us lots of experience that contributes to the shared pool of digital museum practices, that we ourselves have drawn on so heavily during our development process. We have been driven by curiosity and desire, but also by a sense of pressing need. Our work has prompted a growing awareness within SMK of the fact that openness, sharing, and co-ordinated efforts across the sector are what make our institutions robust and relevant

in the digital age.[5] These properties can help us transform into platforms – physical and virtual – that have meaning and value to our users, the very people we are here to serve. If we do not evolve along with the technologies that shape user behaviour, then the institutions for which we are responsible will at best become relics of a bygone era, at worst stagnant and forgotten cultural archives. [8]

[8] While I was writing this article, I re-read J. L. Borges' short story "Tlön, Uqbar, Orbis Tertius". A phrase in the story struck me as a universal, poetic wording of the same problem:"Things (…) tend to become effaced and lose their details when they are forgotten. A classic example is the doorway which survived so long as it was visited by a beggar and disappeared at his death. At times some birds, a horse, have saved the ruins of an amphitheater." (Jorge Luis Borges, Fictions, 1941-42)

Focus, format, and aim

My article is conceived as a case study describing the process of how SMK, inspired by a growing international OpenGLAM trend, has become aware that we will better be able to fulfil our function as a publicly funded cultural heritage organisation by opening up and sharing our digitised collections – particularly if we co-ordinate such efforts with colleagues, reaching across institutional boundaries. It relates how we have experimented with opening up and sharing, how we learned our first lessons – and what will be required in terms of changes and additions to scale up our efforts, transforming pilot projects into an established, ongoing practice. Finally, the article outlines how SMK plans to work with digital museum practices in the future. The article lays down two parallel tracks. The main track consists of a case study, presented in chronological order, focusing on SMK's initiatives to promote openness and the sharing of digital resources. The other track consists of images, references to literature and sources of inspiration that proved crucial at various stages of the process. The main track can be read independently of the side track; however, it intends to add a multivocal dimension to the case study, accentuating how SMK's development stands on the shoulders of giants, based as it is on the great efforts already made by colleagues within the international GLAM sector.

The article – and the anthology as such – is aimed at Danish and international GLAM professionals working with research,

content, presentation, and education activities at museums, libraries, and archives, as well as at professionals who work in ministries, agencies, boards, and professional organisations that contribute to creating the basis for the GLAM sector's work, in Denmark and abroad. The article is based on practices seen within the framework of a single, specific institution, and so it does not claim to provide a general analysis of the field of digital museum practice. However, the case study touches upon subjects – such as Public Domain, copyright, image licensing, Creative Commons, and user engagement – that will be recognisable and relevant across the GLAM sector.

Most of all, my article is dedicated to the museum users. They are the ones we are here for, and the various thoughts and ideas presented here have been conceived, and translated into action, in order to meet their needs in the best ways possible.

2. A WEALTH OF OPPORTUNITIES

"It's an ethic that defines what the new Web is becoming: a massive playground of information bits that are shared and remixed openly into a fluid and participatory tapestry."

Tapscott & Williams, *Wikinomics*, 2008

A new tier has been added to all GLAM institutions throughout the world: the Internet. Here we seem to have access to everything, everywhere, at all times. We do not need to concern ourselves with opening hours, modes of access, or whether the museum itself is thousands of miles away. If we have an Internet connection, we have access.

The role of the GLAM sector in society is, broadly speaking, to make our cultural heritage available to all, to support learning and education among the general public, to inspire creativ-

ity and personal development, and to help contribute to the building and preservation of a diverse culture. The Internet has opened up brand new opportunities for museums, libraries, and archives for gaining a wider reach and being relevant to people when and where they need them. But it also requires the GLAM sector to adjust to a radically new situation; a situation that changes our users' expectations of us and requires us to adapt, leave old habits behind, and adopt new strategies and skills to fulfil our mission. A lot of hype tends to surround digital technologies, and at times the pace of technological development can almost take our breath away. However, I – and many others – view digital technologies as something that offer us unique opportunities for fulfilling our mission in the 21st century.[6]

Even though keeping track of the technological developments can seem daunting, we nevertheless seem to adapt quickly to the new habits and comforts they bring. First, the PC entered our everyday lives, making it easy to work with data and information in a structured manner, whether you were a doctor, art historian, or accountant. Then the Internet arrived, opening up entirely new dimensions for what the PC could do for us by placing the entire world before our feet in digital form, like a Maggi cube of the world. The Internet, whose 20th anniversary was celebrated in 2013, was from the outset conceived as a free and open domain, allowing everyone to utilise its potential. [9] Finally, the PC and Internet became truly integrated when smartphones and tablets made digital access mobile and ubiquitous, putting it right into our hands.

Productivity and efficiency are not the only things to have made a huge leap ahead with the aid of the Internet's radical openness and the rapid proliferation of digital technologies. As Clay Shirky puts it in his book *Cognitive Surplus. Creativity and Generosity in a Connected Age* the emergence and global reach of the Internet has set free a tremendous surplus of knowledge and creativity. This overabundance can flow freely thanks to new social tech-

[9] That the democratic access to all the world's knowledge and resources is at our disposal is not a matter of course, but the result of a decision in principle made in 1993 by CERN, the European research centre that invented the Internet. At that time CERN decided to relinquish the copyright to the source code of the Internet and place it in the public domain. From then on, anybody could freely use it, modify it and distribute it. http://www.npr.org/blogs/money/2013/05/01/180255276/the-single-most-valuable-document-in-the-history-of-the-world-wide-web So, the Internet as we know it is registered as a commons – a common resource, which is contributed to by everyone and which can be used by everyone (Hess & Ostrom, 2007, p. 3-26). More on the concept of the *commons* on p. 62 ff.

nologies that turn passive TV audiences into multi-media producers, newspaper readers into reporters, and put people across the world in touch with each other in dedicated networks with powerful, free tools right at their fingertips. [10] We are rapidly moving out of the broadcast era, where we were accustomed to the passive consumption of content selected and related by authorised experts, into the Internet era, where we are becoming accustomed to the fact that media are also social – they are places where we arrange and organise things ourselves, pass on our own knowledge and attitudes, and help shape the way our shared reality is presented. We have gained direct access to the "publish" button, and more and more people are seizing that opportunity, pushing the button hard. Jay Rosen from the New York University simply calls Internet users "The People Formerly Known as the Audience".[7]

A general trend is emerging; many companies and institutions, that are successful online, are good at supporting and harnessing people's cognitive surplus. Instead of watching TV as a part-time job, as Shirky aptly puts it, we now have the opportunity to spend our time actively contributing knowledge, help, and skills in contexts that mean something to us and where we can make a real difference. The best-known example is Wikipedia – an encyclopaedia aspiring to encompass all the knowledge in the world, in myriad languages, created through the shared efforts made by thousands of volunteers from the entire world. An unthinkable concept prior to the Internet. But now, after the advent of the Internet, it is a tangible reality that most of us use every day, and to which people all around the world devote millions of hours of voluntary work.[8] [11]

How do they find the time? That is a question puzzling many readers of *Cognitive Surplus*. However, Shirky turns the issue upside down, asking this question: How many hours of cognitive surplus would be set free if the world's population spent just 1 % of the hours we spend watching TV every year on contributing to a common cause? Just this one per cent would correspond

[10] In *Cognitive Surplus* (2010), Shirky analyses a number of cases, demonstrating the possibilities offered to the global population by the Internet and social media – from the world's largest collaboratively produced encyclopedia Wikipedia http.//www.wikipedia.org/, PickupPal, a global community of people who offer rides to each other to save petrol http://www.pickuppal.com/pup/html, Ushahidi, a Kenyan initiative which facilitates mobile reporting of war crimes outside state controlled media http://www.ushahidi.com/, to YouTube and Vimeo, where millions of citizens of the world daily film, produce, remix and share their own and each other's videos. Lawrence Lessig predicted this development in *The Future of Ideas. The Fate of the Commons in a Connected World* (2001).

[11] "Jimmy Wales' [founder of Wikipedia] elegant vision about 'imagining a world where every person on Earth has free access to the sum of all human knowledge' may sound utopian, because how should we share knowledge? The answer is simple: We can, because knowledge today is digitised and because we communicate digitally. To Jimmy Wales it is not utopian but plain reality, now becoming so clear that we must all relate to it, namely the reality that the Internet gives everyone the chance to contribute their knowledge and that – even with a minimal effort from each individual – the collective result will be colossal as our numbers grow." (Leth, 2011, p. 11; Danish only)

to the production of more than 100 Wikipedias a year. If people have the means, motif, and opportunity they will also find the time.[9] The Internet and social technologies serve to accrue and pool people's individual enthusiasm, giving it direction and real impact. Generosity and creativity are central aspects of this culture (as is indicated by the title of Shirky's book); not because we live in an age where people are more generous and inventive than before. But, argues Shirky, because the development of the social Internet has given the world's population the tools to unleash potentials that have always been inherent in mankind, on a hitherto unseen global scale. [12]

A new museum culture

The culture of co-operation, generosity, and participation that characterises Internet culture has prompted a new economic paradigm that has been given the striking name *wikinomics*, invented by Don Tapscott and Anthony D. Williams in their 2006 book by the same name.[10] Wikinomics is based on four pillars that fundamentally change how companies and knowledge institutions can act:

- *Openness* – transparency and open standards replace secrecy and closed licences
- *Peering* – professional peers and users are actively mobilised to help develop and improve data, products, and services
- *Sharing* – information and assets are shared freely in order to allow everyone access to the ongoing development, thereby giving added impetus to the discovery of new solutions
- *Acting globally* – the global network culture makes it possible to scale up initiatives and reach far larger markets and user groups

The book *Wikinomics* is full of examples of how this new economic paradigm generates value, both in terms of sustainable solutions and cool cash. Wikinomics extends from the

[12] It sounds almost incredible with all this knowledge and creativity, now circulating freely. I thought so too until my husband started composing music about a year ago. He has no formal musical training, he hasn't attended a conservatory, doesn't even come from a musical family. But he has always had a strong intuitive musicality. With the help of the free open source programme Musescore (http://musescore.com/) he has, under his alias, Tage Aille Borges, composed more than 50 opuses, among them 16 symphonies, two piano concerts, a violin concert, four orchestral suites, a flute sonata, nine preludes for organ and a wind quintet (Borges' work on Musescore: http://musescore.com/user/28402). Through the Musescore community his music has gathered an enthusiastic following of listeners from all over the world, who comment and provide feedback on his work. Tage Aille Borges is to me the obvious real world example of the digital revolution described in *Cognitive Surplus*.

business world far into the knowledge and culture industries. In recent years a wide range of non-profit organisations and grassroots initiatives have successfully generated vast amounts of knowledge and content by opening themselves up to user contributions, collecting and combining them to form useful digital resources.[11]

Aside from the wellknown example Wikipedia, other highlights include OpenStreetMap, which has grown from its humble beginnings in 2004 to become a worthy competitor to Google Maps (more than 300,000 active contributors and more than 12 million updates as of June 2012); Librarything, where readers can catalogue their books and make them searchable to others, share recommendations, and get in touch with like-minded readers (more than 1.6 million users, more than 80 million books catalogued as of April 2013); and DigitalKoot, where more than 100,000 users helped the National Library of Finland proofread and correct more than 8 million words in digitised newspaper articles over the course of less than two years, simply by playing a simple and fun online game. In Denmark, the DR Kunstklub (the Danish Broadcasting Corporation's Art Club) seems to be taking Clay Shirky at his word, turning traditionally passive viewers into active co-creators of cultural expression. The Art Club successfully nurtures a bubbling creativity by presenting people with more or less firmly delimited tasks, prompting responses from a dedicated and growing community. The resulting cultural artefacts and statements – often beautifully crafted and thought-provoking – are exhibited by the DR Kunstklub online and at cultural institutions nationwide.[12]

When analysing what makes these diverse platforms successful, certain structural features recur:

- Influence and scope for action: Users are invited to take part in decision-making, actively affecting the service or forum to which they contribute.

- Combining work and pleasure: Users get the opportunity to contribute something useful and valuable while having fun.
- Community-oriented: The platforms establish a framework where users can meet likeminded individuals and form communities based on shared interests. One of the main driving forces for participation resides in contributing to the common good.[13]

This new culture, made possible by the Internet's social technologies and global network, changes people's perception of themselves and their relationship with the world. Knowledge and culture is no longer exclusively created by experts and professionals, served up to passive consumers; rather, it is something to which everyone can contribute. The boundaries between producers and consumers become blurred, giving rise to the so-called *prosumers*, who have become accustomed to – and increasingly expect to – participate actively if they so desire. This quite obviously has strong implications for the GLAM sector, which is situated at the intersection of this development. Our sector of expert institutions must now relate to "The People Formerly Known as the Audience" – an involved, active, and participating audience. How to approach this task? According to Nina Simon, who has kept the influential blog Museum 2.0 for a number of years and is now head of the Santa Cruz Museum of Art and History, this change is fundamental.[14] Today museums cannot simply be satisfied with producing professionally valid and engaging exhibitions; they must also develop and offer opportunities for visitors to share their own content in meaningful and appealing ways. [13]

Adjusting to this new situation is a major challenge for museums. Our institutions have strong traditions and high moral standards as far as the discharge of our duties is concerned. The tasks of collecting, recording, doing conservation, research, and educational activities are already stretching work schedules to snapping point. How can we possibly find the time to

[13] "As more people enjoy and become accustomed to participatory learning and entertainment experiences, they want to do more than just "attend" cultural events and institutions. The social Web has ushered in a dizzying set of tools and design patterns that make participation more accessible than ever. Visitors expect the ability to respond and be taken seriously. They expect the ability to discuss, share, and remix what they consume. When people can actively participate with cultural institutions, those places become central to cultural and community life." (Simon, 2010, p. ii)

[14] "Over the last twenty years, audiences for museums, galleries, and performing arts institutions have decreased, and the audiences that remain are older and whiter than the overall population. Cultural institutions argue that their programs provide unique cultural and civic value, but increasingly people have turned to other sources for entertainment, learning, and dialogue. They share their artwork, music, and stories with each other on the Web. They participate in politics and volunteer in record numbers. They even read more. But they don't attend museum exhibits and performances like they used to." (Simon, 2010, p. i)
This tendency has been prevalent for a number of years throughout museums of the Western world. According to a national user study by the Danish Agency for Culture in 2012, we are seeing a small but encouraging increase for the age group 14-29, which has increased from 12 to 15% of the overall num-

also collect the users' knowledge and facilitate their creative endeavours? How can we teach ourselves the necessary skills and competences to carry out these new tasks to proper professional standards? Is it a job for museums to act as creative playgrounds and public forums for dialogue? Couldn't people simply turn up and visit exhibitions just as they have always done?

Internet culture affects museum culture whether we want it to or not. Museums must face up to new sources of competing offers to keep up and stay relevant to next generation users. [14] The cognitive surplus of knowledge and creativity, that fizzes and pops on the Internet, will not flow into the museum ecosystem by itself. It requires effort. At the same time the Internet's free flow of content and knowledge also changes the public's general expectations on what museums can and should offer. In just a few years, users will expect easy and user-friendly access to searching and re-using the museum's online collections. [15]

In 2013, the Danish Ministry of Culture launched a digital think tank that includes representatives from the entire Danish cultural sector.[15] The initiative testifies to the fact that not only the museums, but the cultural sector in a wider sense – all the industries that form and convey cultural output and information in a country like Denmark – is under pressure from many sides: Technologies are changing rapidly, as is user behaviour. Large international enterprises such as Google, Amazon, and Netflix are in competition with Danish cultural alternatives. Users expect easy, instant, and preferably free access to information, culture, and entertainment online. This situation creates challenges for all creative industries. [16] All branches of the cultural sector are realising that the conditions, subsidy schemes, and patterns of user behaviour we know and have been comfortable with, are likely to change. If museums, and indeed the GLAM sector in general, is to have relevance and value to future users, it is crucial to adapt and assign new and different priorities to our resources

ber of visitors to Danish museums. However, the study still concludes that the older and better educated are over-represented – equivalent to Simon's statement. http://www.kulturstyrelsen.dk/publikationer/brugerundersoegelse-2012/ (Danish only)

[15] "The audience (…) will be demanding for more online access and services and at some point having a well maintained, accessible and reusable online collection will become just as basic as providing a proper wireless connection in the library." Joris Pekel in a summary of the GLAM-Wiki conference, London, April 2013. http://openglam.org/2013/04/17/glam-wiki-london-2013-highlights/ The same prediction is made in *The Horizon Report. The Museum Edition 2012;* here, free access to and use of the museums' digitised content and research resources is expected to become the norm within two to three years. http://www.nmc.org/pdf/2012-horizon-report-museum.pdf

[16] The newspaper business is the obvious example. Once, the large national papers rested safely in their roles as upholders and protectors of society, organs of enlightenment, supported by substantial state subsidies. Over just a few years the liberalisation of the market has meant drastic cuts in subsidies and a new arena where the papers have to survive on market terms. Now, where online news channels, social media and freebies have turned the Danish media landscape upside down, the big papers are in free fall. In April 2013 the free paper Metroxpress was the biggest Danish paper with almost 90.000 more daily readers than number two, the renowned 130 year old Politiken. http://www.mx.dk/nyheder/danmark/story/25425478 (Danish only)

and energy. [17] If our institutions are to thrive in the years to come, we must face the developments that will happen, whether we welcome them or not. If we act decisively and with our eyes open, we stand a much better chance of affecting the general development and ensuring that our specialised skills and institutions will hold an important position within Internet culture.

[17] The challenges for the cultural heritage sector are summarised in an internal introduction to debate for Europeana's Strategic Briefing on the Cultural Commons in Copenhagen, March 2012:
"As cultural organisations and their audiences move to an age of mass participation and social media, our sector is increasingly challenged to find a new way of expressing and delivering our public principle. If consumers have the right to access and participate in their culture, how can we deliver a cultural offer that is best-suited to the needs and expectations of an always-connected, always-on, multi-platform digital world? What would this mean for our institutions and their positioning in the cultural landscape – the way they relate to their user communities, to other stakeholders and to each other?"

3. IMAGES AND ACCESS

"…what does it mean that there are millions of images online that we are not allowed to touch at all when there are also millions of images we can use as we please?"

Peter Leth, *Creative Commons for alle*, 2011[16]

In February of 2012 I attended a dinner party where one of the guests, an art historian, related an anecdote that stuck in my mind. She was preparing a lecture for an art appreciation class at Folkeuniversitet (a Danish adult education system based on academic teaching) and needed a number of pictures for her PowerPoint presentation; pictures of artworks that she knew were in the SMK collections. She emailed the museum to request eight images in a suitable resolution. The museum replied that the images could be ordered at a price of $9 each, plus a handling fee of $14; a total of $86. Not a huge amount, perhaps, but the cost prompted her to decline the museum's high-quality images. As she replied: *"As I will only receive a modest fee for my teaching at Open University, the cost is rather too high."*

Folkeuniversitetet pays its teachers approximately $330 for a two-hour teaching session. After taxes this leaves around $180 for the speaker. Here, the lecturer would have spent around half of her fee on images for her presentation. And that would only have covered the eight pictures from SMK. After her dialogue with SMK she refrained from contacting any other museums

for images, opting instead to find all the images she needed on the Internet.[17]

Moral rights and photographic rights

The anecdote points to a widespread problem: Museums actually prevent the dissemination and use of their digitised collections by levying unnecessary fees on the use of their images. When I speak about the use of museum's digital images this involves two separate rights aspects, each with its own bearing on the issue, and these two aspects should be clarified.

- Firstly there are the *moral rights* associated with the work – these rights belong to the creator of the original work and remain in effect until 70 years after the artist's death. At that point the copyright lapses and the work is in the Public Domain.[18]
- Secondly there are the *photographic rights*. These concern the rights pertaining to the photographic record of the art-work. Some museums own the rights to the photographic images of their collections themselves. At other museums the photographer who took the pictures owns the photographic rights and must be paid and credited every time the museum uses the images.

Digital photographic images – i.e. digitised versions of photographs that were originally taken using analogue techniques, or pictures taken with digital cameras – make the transaction of images much easier compared to analogue photographs, such as Ektachromes and slides, because the transaction can take place via the Internet and be automated. Users can find and download copies of digital materials themselves, and a single digital image can be re-used an unlimited number of times. By contrast, analogue pictures must be collected manually from a specific physical setting, and returned to their proper place in the archives after use.

SMK owns the photographic rights to all its images, both digital and analogue. At least two thirds of the museum collections are in the public domain, meaning that they are not restricted by either moral rights or photographic rights.[19] In other words there are no legal impediments preventing SMK from sharing these images with the public for free. The fact that SMK (and most other museums across the world) usually require users to register and pay for using images of artworks in the public domain is often based on a wish to prevent misuse. Their concern extends to the moral rights associated with the image, and are based on worries that the integrity of the original artwork could be damaged, e.g. by being reproduced on biscuit tins or in unwanted political contexts. It also concerns the protection of photographic rights, for when museums have paid to have photos taken they will also wish to be able to turn a profit from the images by selling them for use, in publications, online, on postcards, posters, etc. In this sense the two aspects of image rights exercise a mutual influence on each other, for museums have traditionally wanted to protect the moral rights associated with their artworks by maintaining the photographic rights. The question is whether it is appropriate and responsible – in ethical and economic terms – for state-subsidised museums to restrict the use of images in the public domain.

Inexpedient impediments

The story told above highlights three problems that museums face when restricting access to and re-use of digitised cultural heritage in the public domain:

1. We are pushing interested users away from the authorised source of information about the works in our collections.
2. We are missing out by not using our potential for becoming a central hub for motivated users who wish to learn about and work creatively with art.

3. We are undermining our own raison d'etre as public cultural institution.

My encounter with the anecdote related here reinforced my awareness that museums must rethink and reinvent the way we handle our digitised collections.

4. SMK DIGITAL 1.0

"Experiment! Make mistakes!"

Angela Spinazze, member of the SMK digital advisory board, 2009

In May 2008 something happened that would have a major impact on SMK. The museum received a vast grant on a scale never seen before in Denmark: Nordeafonden donated 22 million DKK (approximately $4 million) to be used for the development of digital museum practice. The overall effort came to be known as SMK digital. Ambitions ran high right from the outset. [18] A five-year schedule comprising six projects was launched. Work began on building digital foundations in the form of a new collection database and website. The efforts also included a range of education initiatives aimed at the general public: a new Search the collections; an online universe entitled Art Stories, based on relations to other art collections and knowledge resources everywhere on the Internet; web TV and games produced by the museum itself; digital presentation and tools within the museum galleries; and the development of MySMK, a creative space for users on the museum website.[20]

International advisory board

The ambition to be a trailblazer on the digital front prompted SMK to set up an international advisory board to provide inspi-

[18] SMK's annual report for 2008 tells us that the museum had "… an ambition to become a leader within digital communication. The museum's wish to create a comprehensive, visionary and 100 % digital art museum found backing with Nordea-fonden, which chose to support the project with 22 million DKK over 5 years. The donation from Nordeafonden is the biggest in the museum's history. At the same time, it is a targeted investment, which also on an international level will make the museum a front runner, in terms of development and use of digital media." (SMK annual report, 2008, p. 16; Danish only)
http://www.smk.dk/fileadmin/user_upload/Billeder/om-museet/organisation/aarsrapporter/aarsrapport2008.pdf

ration for the process. The board members came from a range of museums that had inspired our own visions for digital museum practice. By getting the board involved, we gained direct access to a range of digital museum professionals that we regarded as leading figures within the field. [19] The concept for SMK digital that had prompted Nordeafonden to sponsor the project was inspired by overall tendencies towards user involvement and participatory design described by Nina Simon in her influential blog Museum 2.0[21]; tendencies that Shelley Bernstein had turned into tangible practice in the groundbreaking exhibition *Click! A Crowd-Curated Exhibition*, just to name one prominent example. [20]

With their experience and expertise, the advisory board opened up a wide range of doors to new methods and practices we could employ. But which of these were suitable for SMK? The board encouraged us to get to know our users by taking a very practical, hands-on approach: Defining target groups, talking to them, listening carefully to what they said, and of course acting on it. Exciting suggestions came flooding in. We were encouraged to integrate user comments and creative contributions on the museum website and in the galleries, to involve audiences in the display and hanging of the collections, to use game mechanisms when designing learning activities, to make daily rounds of the museum to speak with users, and to do it all right now instead of putting it off for later. A new, user-centric focus emerged. As did a growing sensation of a pressing urgency as we observed what was going on at fellow museums internationally – an increasing awareness of the fact that the digital field evolves a great deal faster than we were accustomed to in museum work. [21]

At the time when we received the funding for SMK digital, the museum was still in many ways thinking and operating in broadcast terms. Even though people in various parts of the organisation had begun to pick up on and be inspired by new forms of museum practice, a general shift in mindset and everyday practices was still required before the many ideas could be prioritized and put into actual practice. The introduction of

[19] At the launch of SMK Digital the international advisory panel comprised the following members:

- Allegra Burnette, Creative Director of Digital Media, MoMA
- Angela Spinazze, Information Architect, ATSPIN consulting
- Frankie Roberto, Web Producer, Science Museum London
- Johann Holland, Research Engineer/Consultant, Institut de Recherche et Innovation, Centre Pompidou
- Nina Simon, Designer/Researcher of Participatory Museum Experiences, Museum 2.0
- Robin Dowden, Director of New Media Initiatives, Walker Art Center

[20] "Click! is a photography exhibition that invites Brooklyn Museum's visitors, the online community, and the general public to participate in the exhibition process. Taking its inspiration from the critically acclaimed book *The Wisdom of Crowds*, in which New Yorker business and financial columnist James Surowiecki asserts that a diverse crowd is often wiser at making decisions than expert individuals, Click! explores whether Surowiecki's premise can be applied to the visual arts – is a diverse crowd just as "wise" at evaluating art as the trained experts?" https://www.brooklynmuseum.org/exhibitions/click/

SMK digital offered an opportunity to hire project staff with specific digital qualifications in multi-media productions and website design. However, no manager with expert qualifications within the digital field was appointed. The overall management of SMK digital fell under the museum's existing managers. SMK digital was launched with great ambitions and intentions, but at the same time with a lack in the organisation of professional insight into the digital field.

One of the advisory board members, Angela Spinazze, gave us this piece of advice: *"Experiment! Make mistakes!"*. While this may sound obvious, the phrase embedded itself firmly in the programme's collective consciousness, giving us the courage to begin work on the challenges we were facing, experimenting as we went along and learning from our mistakes.

[21] The international advisory board of SMK digital gathered for workshops at the museum in October 2009. Frankie Roberto is presenting.

In November 2008 SMK digital launched Denmark's first digital museum strategy, collecting and combining objectives within digitisation, education, and communication activities.[22] One of the strategic objectives stated that *"SMK digital is a catalyst for the users' creativity"* – an objective that revealed a growing awareness within the organisation of the new role that SMK wished to play. The strategy stated that this objective would be reached by getting to know our users and by working systematically on incorporating users in the planning and production of the museum's communication and education activities.

From the outset emphasis was placed on learning processes, sustainability, and accessibility, building bridges between the physical and the digital museum, and – most of all – emphasis was on the users. A consistent preference for open standards was formulated, and during the initial stages a number of important decisions on this issue were made – aided by our international advisors. We chose to build a new website using an open source Content Management System. We decided to join the development of CollectionSpace, an international and open source-based database system for museums.[23] This process proved more time-consuming than originally anticipated, and over time this would also affect the rest of SMK digital due to a fundamental lack of a consistent digital infrastructure – a condition I will return to. Last, but by no means least, we made a commitment to being open to the world around us; we wanted to maintain an ongoing dialogue with our users and act as a catalyst for their creativity.

5. ART HISTORY ON THE INTERNET'S TERMS

"Any point of a rhizome can be connected to anything other, and must be. This is very different from the tree or root, which plots a point, fixes an order"

Deleuze & Guattari, *A Thousand Plateaus*, 1980[24]

Visions

The project within SMK digital which I became attached to was Art Stories.[25] Before this, I had been working on a smaller project with a firmly defined scope: It aimed at bringing SMK's collections of Danish art – and the research associated with it – online. Suddenly, the generous support of Nordeafonden gave us the opportunity to be more ambitious. This gave rise to the vision of presenting art history on the terms offered by the Internet.

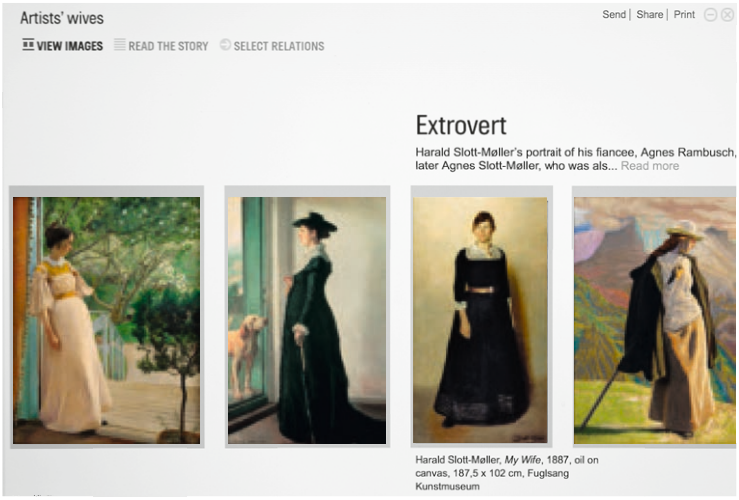
The vision was based on a critical attitude towards canons in art history. Museums such as SMK own very large collections, but the general public only see a fraction of them – they see the artworks that the museum curators have chosen to display in the galleries at a particular time.[26] Visitors are only presented with a narrow and time-specific selection made from a much greater wealth of artworks hidden away from the public gaze in the museum's storage facilities. In my earlier work I have carried out an in-depth critical analysis of art history's canon and the power structures determining what is included in art history books and museum collections, effectively deciding what the public has access to. An art historical canon is based on accepted professional criteria, that are constantly being challenged and debated and which change over time. Taken together, these criteria may be defined as a paradigm – a lens through which the world is viewed. Change the lens, and you change the perspective. [22]

Together, the evolution of the Internet and the digitisation of art radically change the accessibility of museum collections. Digitised art can be viewed in all its diversity on the Internet, that eliminate the physical constraints that apply to a brick-and-mortar museum. [23] This opens up new alternatives that eliminate the need for reduced access to the true diversity of the collections imposed by physical presentations. The long-term ambition behind Art Stories was to show all aspects of

[22] "An art canon is (…) a period picture of the leading tastes and self image during a particular period. But within the term canon also lies an expectation of something eternal – that certain artists and works always will hold a special place in art history and that you, if you know of them, have a good overview of the most important points in art history. The concept of the canon thus holds a paradox, which is of great importance to how art history is written." (Sanderhoff, 2007, p. 191)

[23] "Digitisation makes two important things possible: Accessibility and participation. It is a giant leap forward." Discussion of the perspectives in digitising museum collections, in an interview with HAVE backstage, February 2012: http://vimeo.com/34958955

Design by Oncotype.



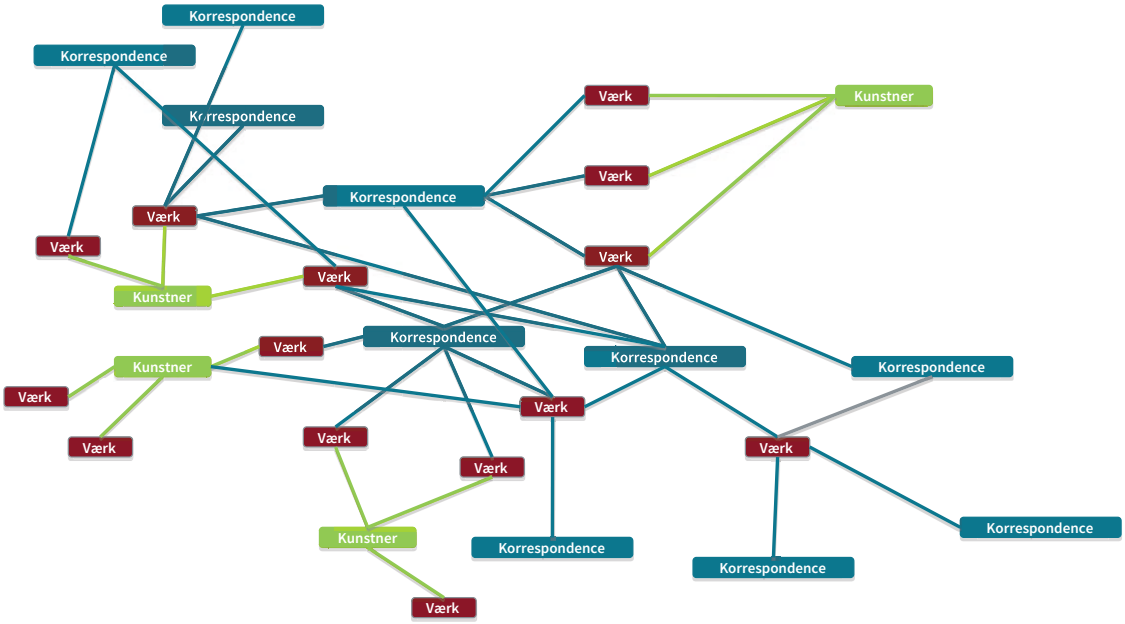
[24] An example of artworks from various collections coming together in Art Stories to form relations with each other. Here, artworks from SMK, The Hirschsprung Collection and Fuglsang Kunstmuseum are connected by the common theme Artists' Wives. http://www.smk.dk/en/explore-the-art/art-stories/stories/vis/artists-wives/

our collections, from the well-known to the obscure and the neglected, leaving it up to users to decide what was interesting to *them*. At the same time we wanted to make use of the networked structure of the Web and to demonstrate how SMK's collections are interlinked with art located all around the world. Here we could show artworks side by side even though they are physically located in different museums on different continents. [24] More than that: we could provide links to a wealth of online sources that would enrich the experience and appreciation of each individual artwork: Wikipedia entries, music, literary works, maps, archivalia. And even more: we could open up opportunities for people to relate their own stories about art, sharing links to relevant images, uploading their own pictures, etc. The contours of a wide-ranging web of stories and information about art began to take shape.

The vision behind Art Stories was heavily influenced by Gilles Deleuze and Felix Guattari's description of the *rhizome* – a concept of linguistic philosophy or "image of the mind" as the authors themselves call it that is by its very nature difficult to delimit. They themselves describe it using numerous inventive metaphors in order to avoid a single, clear-cut definition, which would go against the grain of the essence of the rhizome. It is a non-hierarchical, widely proliferating web of endless connections – rather like a fungal organism spreading in all directions underground, sprouting mushrooms up through the crust of the earth in the most unpredictable places.[27]

The rhizome is often used as a metaphor for the Internet. [25] For us, it also offered a striking metaphor for art history, specifi-

[25] In a dissertation on the ontology of the Internet, Chuen-Ferng Koh suggests that the diversity of the Web is similar to, and potentially even bigger, than what Deleuze & Guattari claim is characteristic of the heterogeneity of languages (Chuen-Ferng Koh, 1997). Draft of a rhizomatic information architecture for Art Stories, developed in collaboration with Advice Digital, 2009.



cally when viewed from a canon-critical position. [26] By using the rhizome as the underlying structuring principle of Art Stories we wanted to show art history as a web where any individual point can be linked to any other point.

One of the metaphors used by Deleuze and Guattari to describe the rhizome is a map: flat and open along all sides. It offers a plethora of entry points: it does not matter where you step in. The authors explain that it can be reworked by individuals, by groups, by social formations, and so it is always changing, always becoming, always being created. In a sense, as far back as 1980 this book had captured the fundamental contours of Web 2.0 – a web that is continually affected, increased, and transformed by the people who constitute it. [27] All these metaphors bred and multiplied in our imagination, so we conceived the idea of a website about the stories of art with

- Multiple entry points
- Multiple voices
- Multiple paths to choose
- Multiple co-creators

We are certainly not the only ones to come up with this kind of idea, nor were we the first.[28] Rather, the concept can be said to have grown out of the Internet's technological potential and concomitant new expectations on how to approach the world, its information, and its content. A major factor in how people approach content on the Internet can be described as "the long tail". The term has become a popular designation for the figure that appears on statistical graphs on Internet trade: The popular mainstream products at the top of the graph always attract many hits. But at the same time the few hits located far from the peak form a long tail of more scattered, yet stable demand for products that fall outside the mainstream markets. Chris Anderson's book *The Long Tail. How Endless Choice is Creating Unlimited Demand* describes how the Internet has enabled the phenomenon

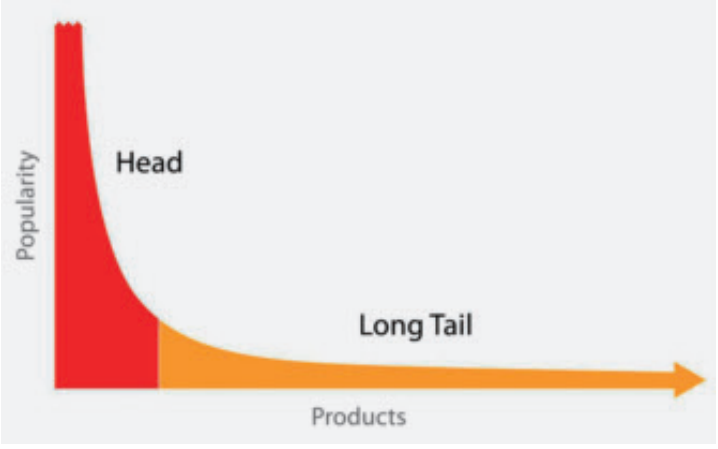
[26] "If you try to imagine that in the blink of an eye you could execute a paradigm-change, that would make the postmodernist mantra "anything is possible" valid, what consequences would that have for art history and broader yet, the art institution? (…) This change in paradigm would primarily mean that the hierarchical difference between centre and periphery in [contemporary] art would be evened out. A paradigm, which literally is 'both-and' would not be able to claim that some [contemporary] art forms were more central than others (…). The 'both-and paradigm' means that one view of art does not exclude another. This makes room for opposite strategies and thus a real diversity on the art scene." (Sanderhoff, 2007, p. 193-96). My dissertation had contemporary art as its investigated field. However, the mechanisms driving canonisation can also be applied in broader perspective to the writing of art history. Therefore, I have isolated the word *contemporary-* with sharp parentheses in the cited passage.

[27] Web 2.0 describes the active Internet where users interact and collaborate with others to create and comment on content, e.g. on social media. The term Web 2.0 was coined in 1999 in an article by Darcy Dinucci, but gained traction with Tim O'Reilly's conference Web 2.0 Summit from 2004 onwards. http://en.wikipedia.org/wiki/web_2.0

of the long tail, and how the long tail has enabled niche cultures to challenge the hegemony of the mainstream. [28]

The "long tail" demonstrates that there is a demand for even the most obscure phenomena when they become available on the Internet. Unlike the physical world the Internet can be thought of as having unlimited storage space, and in principle any product can be displayed on the front shelf. With Art Stories, we wanted to transfer the idea of the long tail from the realm of online shopping to that of art collections: when more and more works from our collections become digitised and available online, the greater the chance that someone will find niche works that have special value for them.[29] Thus, the long tail can challenge the traditional canon-based frame of mind. The Internet's vast capacity counteracts the notion that a museum must give prominence to specific parts of their collections at the expense of others because there

[28] "Unlimited selection is revealing truths about what consumers want and how they want to get it in service after service [from Netflix to iTunes Music Store]. People are going deep into the catalog, down the long, long list of available titles, far past what's available at Blockbuster Video and Tower Records. And the more they find, the more they like. As they wander farther from the beaten path, they discover their taste is not as mainstream as they thought (or as they had been led to believe by marketing, a hit-centric culture, and simply a lack of alternatives)." (Anderson, 2009, p. 16) Jasper Visser also refers to the long tail, but is more sceptical of its potentials. See p. 213 ff.



Source: http://www.longtail.com/

is not enough room to show everything at all times. In principle museums can now make EVERYTHING available, allowing users to choose for themselves. The counterpoint to this thought is that, as the amount of information and content keeps growing, a greater need for structured and qualified selection arises. Users sometimes need that content to be screened and selected by trustworthy sources. Therefore, unlimited access and curating are not mutually exclusive. Quite the contrary; the role played by the competent curator has become more important than ever in an era where the quantity of information available grows vaster by the second.

Much of the content offered and produced by museums falls within the long tail. Even though museums are fond of focusing on blockbuster exhibitions and famous artists, the true substance of our collections and exhibitions can only, when viewed within a wider media perspective, be regarded as niche phenomena. In Denmark, for instance, we refer to C. W. Eckersberg and Asger Jorn as "big artists", but they are only big within our own limited world. The Internet offers optimal conditions for turning this basic fact into an asset. When no longer inhibited by conditions such as the geographical location and limited wall space of the physical museum, our collections can be reached by potential users across the globe. The online museum can be visited at any time by anyone from anywhere, and there is unlimited space available. Also, the Web 2.0 culture means that users can act as ambassadors for content they appreciate. They comment on and share what they like with their network. This brings a larger portion of the collections into circulation online, continually increasing the likelihood of new recipients becoming acquainted with them.

Diversity

Art Stories was intended as a website that unveiled and provided access to art in all its myriad forms, allowing users to dig out

obscure and peculiar gems that would, for a variety of reasons, rarely or never see the light of day in the galleries of SMK. The design was based on making the images the point of entry for more information about them. We had seen far too many websites about art where the artworks themselves were lost amid oceans of text. That was a shame, as high-quality digitisation offers opportunities for close scrutiny and careful contemplation of images online. In order to promote visual exploration and a sensuous discovery of the artworks we worked towards showing the artworks in the largest formats and resolutions possible. [29]

Diversity is a central concept within the rhizome theory and in Art Stories. The site was designed with an emphasis on a multitude of clearly identified voices; a trend that has become increasingly widespread among museums in recent years – inspired by social media where you can see who is saying what. This approach marks a break with the "voice of the museum" – the anonymous, but authoritative voice traditionally used by museums. By naming the scholars and curators behind each story we wanted to share authority among several persons, each of them with their own distinct approaches, and leave it up to users to assess the various interpretations of art. The many different voices were intended to prompt users to reflect on their own position when encountering different approaches to a given subject.

Art Stories also aimed to promote diversity by linking to external sites. The idea was to use the Internet's vast accumulated store of information as a handy reference library for Art Stories. Instead of providing explanations for everything – for example explaining the identity of the historic character Struensee in an article about the 18th century artist N. A. Abildgaard – we provide links to existing online sources whose content we find professionally adequate. This decision was based on two arguments: If something has already been suitably described online once there is no point in doing it again. And, if a given source might potentially be useful to users, it makes good sense to link to it. [30]

[29] Since then, the idea of cultivating the lust for discovery with high-res digital images has shown itself on websites like Pinterest and the Google Art Project, and it is one of the basic principles of the Rijksmuseum's popular Rijksstudio website: "A focus on the image. Many museum websites present a wealth of information and "data." Rijksstudio believes in the strength of the images themselves, which are used to create an engaging online aesthetic experience. High-resolution images (…) which are of real value to the user." (Gorgels, 2013) http://mw2013.museumsandtheweb.com/paper/rijksstudio-make-your-own-masterpiece/

[30] A similar way of thinking has been determining for Walker Art Center's decision to pull in art news from a variety of online sources to their website http://www.walkerart.org/. If it's interesting to their target groups, why not aggregate it for the users? At the same time Walker Art Center optimises their content production by drawing in relevant content from other trustworthy sources. For a walk-through of the principles behind the website, watch this presentation from MuseumNext 2012: http://slideshare.net/museumnext/walker-13384889 The same principle was used in the relaunch of the Rijksmuseum's homepage in 2012. Here, introductions to artists in the collection such as Rembrandt and Vermeer are eliminated, because they are already so well described on Wikipedia.

Reality check

Art Stories was conceived as a way of presenting art history on the Internet's own terms. A website about art that could serve as a destination in its own right – a different way of experiencing art which is not opposed to, but supplements the encounter with the original work of art at the physical museum.

However, for Art Stories the transition from thought to action proved fraught with unforeseen obstacles.[30] First of all, in the development process we had to face that our museum organisation did not yet have the courage to open up to user-generated art stories. Thus, offering an opening for the users' own stories and images was not realized as intended in the first version of Art Stories. Another challenge was technical in scope and concerns the system we developed. (This would follow later, see pp. 89-95). Ironically we had the vision, but not the capacity and overview required to build a scalable system where the content could grow and create ever-new relationships. As a result we ended up with a classic silo; a closed system that cannot draw in new content and data in a dynamic fashion. All updates must be made manually. Unlike for instance the Tate, we do not have a subject index for our works, nor do we have a digitised back catalogue of research-based publications about our collections, which means that we cannot enrich the content in Art Stories with existing published information.[31] This means that little new content has been added to Art Stories since its launch, and that there is already a need to rethink the basic infrastructure and workflow of the site.

A third major challenge concerns clearance of photo rights. This became evident when we began to request image files from other museums in order to show them side by side with our own works within the new Art Stories universe. The costs were tremendously high. Just one image could cost several hundred dollars, and even that would only buy us clearance for a limited period of time. The labour involved in writing to each

rightsholder, asking for files, describing the intended usage, and so on, turned out to be a major drain on our manpower. What is more, the use of images from other collections prevents us from posting Art Stories videos on YouTube, where they could gain much wider exposure than when shut in and restricted to the museum's own website. [31]

The vision of presenting art history on the terms set by the Internet had made good sense to us. It looked like the perfect medium for unfolding the paradigm of diversity. But then we came up against something that limited our options: copyright.

[31] In *The Future of Ideas*, Lawrence Lessig describes how the creative potential of the Web is suppressed by copyright law. "All around us are the consequences of the most significant technological, and hence cultural, revolution in generations [the Internet revolution]. This revolution has produced the most powerful and diverse spur to innovation of any in modern times. Yet a set of ideas about a central aspect of this prosperity – "property" – confuses us. This confusion is leading us to change the environment in ways that will change the prosperity. Believing we know what makes prosperity work, ignoring the nature of the actual prosperity all around, we change the rules within which the Internet revolution lives. These changes will end the revolution." (Lessig. 2001, p. 5) http://www.the-future-of-ideas.com/download/lessig_FOI.pdf

6. FREE IMAGE SHARING NOW!

"Today, a new economics of intellectual property is prevailing. Increasingly, and to a degree paradoxically, firms in electronics, biotechnology, and other fields find that maintaining and defending a proprietary system of intellectual property often cripples their ability to create value."

Tapscott & Williams, *Wikinomics*, 2008

Art Stories opened our eyes to the fact that if we wanted to work with art history on the Internet's own terms we needed to build a foundation consisting of freely available and accessible digital images. The habitual approach to organising digital images in museums – as assets that can be bought and sold – prevented us from realising our vision of establishing a network of digital art collections. We soon realised that we could not hope to change copyright rules and conditions outside the Danish borders. But we could try within our own ranks.

The idea of showing art from different collections side by side seemed an obvious choice and was possible online. By presenting art history digitally we could create meaningful connections

between different collections, and links would make it possible to send users onwards to others. Rhizome-like, this would make it possible to enter the world map of art from any point, and from here a web of relationships would spread out in all directions. The basic idea was that creating synergies between our collections would be an advantage to museums. However, the high cost of purchasing images from each other was an obstacle.

Up until this point, that particular issue had not attracted much attention within the Danish museum scene. Museums were used to showing only their own images on their websites, regarding each other as competitors fighting for the favours of the same users. However, the digital realm presents an alternative: The more art is made available online, and the better the connections and meaningful relations between them, the greater the "consumption" of art. Think along the same lines as the recom-

[32] The five museums participating in the project were The Hirschsprung Collection, Funen Art Museum, Vejle Museum of Art, KUNSTEN Museum of Modern Art Aalborg, and SMK. Here, Lars Ulrich Tarp Hansen from KUNSTEN Aalborg and Jonna Nielsen from Vejle Museum of Art are developing the concept for billeddeling.dk at a workshop, June 2010.

mendations function found on the major Internet retailer site Amazon, that offers relevant recommendations when a customer buys a product, based on the customer's own actions and the actions of other users: "Customers who bought this item also bought…" The online portal for the public libraries in Denmark, bibliotek.dk, features such an element in their search function. Transposing this principle to art collections could easily be done: "Users who looked at/enjoyed this work of art also looked at/enjoyed…"

Once we had become aware of the issues concerning photo sales and image licensing within the Danish museum sector – and as we began to explore our established business models – it struck us that having museums pay for using each other's images online was entirely outdated. Why try to make a living charging each other money when we could co-operate on creating links and networks that connect our collections, thereby increasing the overall interest in them? The Danish Agency for Culture agreed with this point of view, and in 2009 they granted funds for a pilot project to explore, how Danish art museums might establish a practice of free image sharing; one that requires fewer resources and is better adapted to the digital age, its conditions, and its potential.

SMK invited four other Danish art museums to co-operate in order to identify how we usually exchanged images and how we could change that practice in order to save money and optimise our outreach. [32] Since 2006, SMK had taken part in a national digitisation project called Dansk Kulturarv (the Danish Cultural Heritage Project). [33] This collaboration had already demonstrated the strength and benefits that could be achieved by joining up and launching a nationwide effort to build a shared digital infrastructure and co-ordinate the public's access to cultural heritage in digitised form. The pilot project on image sharing continued this approach, placing special emphasis on art museums and on sharing digital images for non-commercial online use.

[33] In 2006, the Danish Cultural Heritage project gathered the seven national, archive-bearing cultural heritage institutions: the Danish Broadcasting Corporation, the State Archives, the Royal Library, the National Museum, the State Library, the Danish Film Institute, and SMK in one cross-disciplinary digitisation project. "With digitisation it suddenly becomes possible to combine collections across subject areas and physical whereabouts – using time, people, subject or geography as point of origin. These combinations of collections offer totally new ways to create overviews, insights, and coherence for the users (…). The digitisation will leave a big and important imprint on the Internet in the form of an astonishing amount of material in Danish, which will become a real alternative to the enormous amount of English-language material on the web." (Golodnoff, 2007) Read more in Golodnoff & Lerkenfeld's article p. 161 ff.

International inspiration

During the pilot we investigated a number of international examples of sharing digital collections online for non-commercial use; specifically for education and research purposes. Many museums own considerable collections that are in the public domain. A frequently heard argument states that free and democratic access – for students, scholars, and teachers – to digitised copyright-free collections is in keeping with the museum role as a trustworthy and reliable source of learning and education. [34] We also came across weighty arguments of a financial nature. Museums such as the Victoria & Albert Museum, the Powerhouse Museum and the British Museum could document that they saved money on their photo sales by switching from manual administration to a digital set-up where users can download their requested images themselves. [35]

Using digital methods of distribution caused the exposure and visibility of collections to skyrocket. The Powerhouse Museum in Sydney found that their photographic Tyrell collection attracted 20 times more views after it was posted on the Flickr Commons – an open online archive of photographic collections with no known copyright restrictions. The greater exposure of the collection meant that it was discovered by potential users who had not previously found the images on the museum's own website.[32] Interestingly, the Powerhouse Museum could document stable commercial sales pertaining to their Tyrell collection after the images were made available for download from Flickr – without copyright restrictions, but in low resolutions unsuited for commercial use. In other words, the presence on Flickr had effected a significant boost in the exposure and usefulness of the Tyrell collection without reducing the income from commercial photo sales. In addition to this, the collection data had been enriched by tags generated by Flickr users – tags that the museum incorporated back into their own database, thereby improving search results within their own collections. [36]

[34] "Photo libraries provide a great resource to enable learning and the museum sector is in a position to support the education sector by allowing images to be used in an educational manner without additional cost, yet our business models currently don't support this to the level that is required by such communities. The education sector is a great source of potential innovation and creation using high value, authoritative and trusted content that exists in museums, yet the fees for access and reproduction are too high for the majority of educational use." (Bray, 2009) http://www.museumsandtheweb.com/mw2009/papers/bray/bray.html

[35] "… it was a matter of simple cost calculations to demonstrate that the supply of photographs was losing the museum large sums of money. Although we charged considerable sums for supplying images, the costs to us of doing so were far greater. So we automated the delivery of larger, publication-size files of the images available, so that anyone could order them themselves. Orders were dealt with by the computer, delivery was free and overnight, and permission to publish was attached. Needless to say, this facility has proved immensely popular, and so far more than 150,000 such downloads of images have been supplied – used not just for scholarly publications (…) but also by those who need to see the works in greater detail. The interesting point is that this has served our own interests as well. The costs of web delivery are very small, and the savings in staff time are huge (…) Yet our income from reproduction fees from the commercial world has actually increased, since our website acts as a giant picture library and we can supply files very quickly." (Griffiths, 2010, p. 362-63)

The example offered by the Powerhouse Museum (and many other museums, especially museums of cultural history, that share their photographic collections on Flickr Commons) inspired us to integrate Flickr into billeddeling.dk. This was the simple image database that we developed, in order to demonstrate how easily museums can share their digital images. Billeddeling.dk gave all participating museums the opportunity to upload high-resolution images, incorporate metadata from the shared Danish museum registration database Regin/KID, and tag their pictures.[33]

[36] The Powerhouse Museum's experience from Flickr Commons led to fundamental considerations about basing their picture license model on increased accessibility and usefulness. "The promotional return from the attribution of collections and the integrity of providing content to the public in an open access initiative should outweigh any small fee gained from the traditional method of licensing images." (Bray, p. 6)

Billeddeling.dk also featured an option that allowed individual museums to share their images outside the closed database in the Flickr group KunstMuseerDanmark which we created for the purpose.[34] The basic concept was to offer the project partners an opportunity to share their images – not just with other museums in a closed system, but with the general public too, in order to see what synergies might arise. This would primarily involve works in the public domain to which the museums owned all photographic rights. However, only few of the participants chose to use that option. The familiar concerns about what people might do with the images if they were freely available online were very prominent among the museums. Awareness of the potentials in contributing to the Internet's store of freely available resources was limited. One of the conclusions inferred from the pilot project was that awareness-raising work was necessary and crucial to make progress.

Copyright negotiations

The work to raise awareness about the potentials in sharing images freely was not only aimed at museums. One of the key reasons why the Danish Agency for Culture supported the pilot project, was that the project group would present possible common solutions for all Danish art museums for handling copyright issues when sharing images. As a result, one of the objectives was to

negotiate a collective agreement on sharing copyrighted images with the Danish copyright organisation for art, CopyDan Billed-Kunst. Such an agreement was meant to apply to all copyrighted images in a collective pool to which all participating art museums contributed during the course of the project. We could have made things easier for ourselves by limiting the scope of the project to works in the public domain. However, as public-sector art institutions with the obligation of elucidating the history of art and culture as widely and deeply as possible, it would severely limit our scope if we only presented the older parts of our collections. One of the museums participating in the project, KUNSTEN Museum of Modern Art Aalborg, contributed a collection of artworks all under copyright, so addressing this issue was necessary.

The initial proposal made by the project partners to CopyDan was a model in which each copyrighted image was placed in a shared museum database and cleared once, allowing it to be shown on multiple sites concurrently without requiring additional payment; this would include platforms other than those of the museums owning the original artworks. With such an agreement we wanted to unlock the obvious potential inherent in having museums show images from fellow museums, throwing light on each other's works and sending users on to each other. However, CopyDan was not willing to discuss this option. They maintained that all rights must be cleared per view, not per work – and it should be noted that this means "standard views", i.e. artworks in their full, uncropped form. We also failed to find common ground when it came to more dynamic views and uses such as cropped images, digitally manipulated images, or the use of images in games and videos. CopyDan would not accept collective agreements on such usage. As a result, each case must be individually addressed by each individual museum. The only option that CopyDan was willing to discuss was predefined packages where museums do not carry out individual negotiations, but choose a pre-negotiated package with a number of "standard views" on their own platforms that match each museum's projected needs.

Of course, CopyDan's job is to protect what they perceive to be the artists' interests. The pilot project had no intention whatsoever of challenging this. Quite the contrary: artists are unlikely to find more dedicated and conscientious champions than the museums. This is precisely why we hoped that CopyDan would join us in developing new kinds of agreements that would be better suited to embrace digital media's potential for reaching and communicating with users. In the longer term we might even consider incorporating the user position, creating agreements that would be better suited to facilitate the users' growing expectations of taking part in museums' online initiatives – of being able to *do something* with museum images, remixing and reworking them, commenting on them and sharing them. Examples from the realms of literature and music show that it may be in the artist's own best interest to allow more lenient online use of their works. [37]

Danish state-subsidised museums are legally obligated to present their collections to the public, and our most important task is to promote awareness and appreciation of art and cultural heritage in all its variety to everyone. We have an obligation to use the media and channels that enable us to reach the largest possible number of users. It is absolutely imperative to be accessible on the Internet and via digital media today. In light of this fact it is a shame that some museums are forced to opt out of presenting the modern and contemporary parts of their collections because prohibitive copyright costs prevent them from offering convenient and ready access to such art.

The line of the main museum

Lengthy and not particularly fruitful, these negotiations taught us that the field of copyright changes only slowly and unwillingly. As Lawrence Lessig and Clay Shirky have both pointed out, copyright organisations have their roots firmly planted in the paradigm of the printed press, and introducing a paradigm

[37] The American sci-fi author Cory Doctorow is referred to as a case in point in Wikinomics (p. 34-37), and on the related blog wikinomics.org. "[Doctorow's] personal answer to copyright is to give away his "ebooks under a Creative Commons licence that allows non-commercial sharing." He then attracts readers who buy hard copies. Having two books on The New York Times bestseller lists in the last two years, he says, validates his particular approach." http://www.wikinomics.com/blog/index.php/2010/10/05/drm-and-us/ Wikipedia and Creative Commons offer lists and search functions for creative works published with open licenses: http://en.wikipedia.org/wiki/List_of_works_available_under_a_Creative_Commons_license http://search.creativecommons.org/

shift takes time.[35] But even if things ground to a halt in the copyright negotiations, the museums involved in the project agreed to move ahead as far as sharing works in the public domain was concerned. The project had made us fundamentally aware that sharing pays off. None of the participating museums could document any significant profit from selling images, and the administrative work involved was so time-consuming that it cancelled out any profits. Thus, all project participants were greatly in favour of transitioning to digital practices instead. [38]

One of the crucially important lessons of the pilot project was that the smaller Danish art museums would often follow in the footsteps of SMK where photo sales are concerned. SMK launched the pilot project because we had come across a major roadblock: our vision of launching a website of art history on the Internet's own terms would be far too expensive to realise under the current image licensing regulations. As the project progressed we paradoxically realised that SMK's own high prices on photo sales set a regrettable standard among Danish art museums: The smaller museums largely followed the policies set down by the nation's main museum. It was true that several of the museums employed an informal practice of free image sharing with smaller, local museums because they had long since realised that it made better financial sense to simply swap images than to transfer small amounts of money back and forth. But when SMK turned to these museums for images, they felt compelled to charge for the transaction because SMK charged such high prices for transactions the other way.

Here we were at SMK, with the ambition of becoming a "fully digital art museum", a "trailblazer" for digital museum practice, and now we found ourselves impeded by our own business model for photo sales; a policy that dates back to before the digital age began. Furthermore, SMK hampered interested users and fellow museums in their use of our digitised collections by setting the price level so high that many had to opt out of using our images in their contexts and on their platforms. [39] This

[38] In a report to the Danish Agency for Culture on the project, the participating museums explain their existing models for image sales and handling of photographic rights. Lars Ulrich Tarp Hansen, representative for KUNSTEN Aalborg, explains: "We don't claim payment for images to other museums. We don't pay for images from other museums. Included in a calculation of economic facts should be a calculation of the use of staff resources – namely, that we spend a considerable amount of time uploading, burning CDs, etc., when fellow museums order images from us. If we could upload our image files once and for all and then just approve when somebody wants to use them, it would be very easy. Or even easier: Write that all museums can use whatever they wish as long as they have an agreement with CopyDan, that would free a good deal of staff resources."
Christian Shepherd Guldsø Nielsen, representative of Funen Art Museum, backs this point of view:
"We collect money for our pictures to other museums. 1,000 DKK (approx. $185) for the loan of an existing photograph and 2,500 DKK (approx. $460) for a new one. For online use we claim 500 DKK (approx. $100) which is the relevant example in this case. We make very little money by selling images for web use (in fact I haven't sold a single one since I took over this function). I agree with Lars Ulrich Tarp Hansen (KUNSTEN Aalborg) that there are considerable staff resources to be saved by having free image sharing combined with a common agreement with CopyDan and a central server, so that we won't have to deal with everything bit by bit in the form of uploads and burning of single items from a local server every time a user

was certainly an eye-opening discovery for us. We felt that we ought to be able to use this tendency amongst Danish museums to follow the main museum's lead, turning it into something constructive.

The conclusion of the pilot project – and the message delivered to the Danish Agency for Culture, which had funded the project – was that if free image sharing is to become the norm among Danish art museums, it will require co-ordinated efforts at a national level. In the evaluation of the pilot project, which was carried out by a focus group consisting of museum professionals from nine Danish art museums, the unanimous verdict was that the ideal solution would be to expand the existing national Regin/KID museum database by adding high-resolution images for use by museum and audiences alike. The Danish Agency for Culture has been working on an update of Regin/KID for years, and one of the intentions is to integrate high-resolution images in the new version. [40]

In order to help further the development, we launched two initiatives in the wake of the pilot project:

has a need. Free image sharing now!" http://www.formidlingsnet.dk/fri-billeddeling-nu (Danish only)

[39] Jan Gorm Madsen, a representative of the Hirschsprung Collection in the pilot project: "When an interested party contacts the museum with the purpose of obtaining permission to show reproductions of the museum's work on websites, they are often very surprised at how expensive it is and they give up. A few are allowed to show the images without cost, if the museum believes that it thus supports a project important to the dissemination of art. All in all, the income from showing the museum's works on websites is very limited, and it is the museum's impression that the high prices of file-rental, where Hirschsprung follows the example of SMK, is deterring many colleagues, cultural heritage institutions, publishers and other media actors from showing images on their homepages. It is estimated that if museums and cultural institutions could freely share images among themselves, more would work with new projects and thus be able to show the visual arts to more users." http://www.formidlingsnet.dk/fri-billeddeling-nu (Danish only)

[40] More about this ongoing work in Christian Ertmann-Christiansen and Henrik Jarl Hansen's article p. 154 ff.

- We began to plan how SMK, being Denmark's main museum of art, could push Danish practices on image licensing in a direction of greater openness and greater orientation towards the digital.
- We planned a nationwide information campaign aimed at Danish museums in order to raise awareness of the potentials inherent in free image sharing.

It had proven difficult to realise the vision behind Art Stories. On a positive note, Art Stories had marked the beginning of an important journey towards co-ordinated efforts aiming at openness and sharing across the Danish GLAM sector.

7. THE BIRTH OF "SHARING IS CARING"

"Information can now be made globally available, in an unlimited number of perfect copies, at zero marginal cost."

Clay Shirky, *Cognitive Surplus*, 2010

In April 2010 I attended a session at the Museums and the Web conference that opened up new perspectives for our efforts to promote openness and sharing in Denmark. Under the headline "Museum Commons", Rich Cherry from the Balboa Park Online Collaborative and Michael Edson from the Smithsonian Institution spoke about collaboration between different institutions, based on open digitised collections.[36] [41] As head of a Danish pilot project that had discovered how museums hold back the potentials inherent in their own collections, and working towards introducing a new practice for the free exchange of digitised images, it was a revelation to hear colleagues from major institutions abroad address that very same subject and give it an overarching designation: A *commons*.

[41] Edson and Cherry pointed out many of the same challenges which we were working on solving in the image sharing project:
- Collections are inaccessible online
- Online collections are difficult to search
- Images that should be in the public domain are enclosed in expensive and restrictive licensing systems
- Online collections are not connected, so as to be searchable across the board

(Edson & Cherry, 2010)
http://www.museumsandtheweb.com/mw2010/papers/edson-cherry/edson-cherry.html#ixzz2PJNNVq4v

A “commons” designates a shared resource to which the people of a community all contribute and have free access, for instance to public parks such as Clapham Common or Uxbridge Common, which are just two of the nearly one hundred commons in the London area. [42] Due to the Internet, the commons concept is spreading within the GLAM sector. Originally, ‘commons’ were natural resources that were cared for and accessed by a small community – such as shared fields for grazing, or a village well. In the digital era, new branches have shot forth from the commons concept in the form of open data, open source code, and the Internet these are shared digital resources may use and contribute to. Within the cultural sector the digitisation of vast col-

[42] http://en.wikipedia.org/wiki/List_of_common_land_in_London For a more thorough introduction to the commons concept, in the traditional meaning of a common, freely accessible natural resource, as in the newer meaning of a digital resource (e.g. the Internet, open source code, openly licensed knowledge and data, etc.), see Hess & Ostrom, 2006.

[43] Jill Cousins at the Europeana Annual General Meeting in Berlin, December 2012. Europeana, the common access point to digitised European cultural heritage, is working on establishing a framework for a European cultural commons. Read more in Jill Cousin’s article p. 132 ff. Also see “Culture Must Always Be a Commons” by Nick Poole, CEO of the British Collections Trust and leader of the work group behind the Europeana Culture Commons initiative: http://www.collectionslink.org.uk/blog/1536-culture-must-always-be-a-commons Europeana’s definition of a cultural commons is based on Elinor Oström and Charlotte Hess’ research and Michael Edson’s set of criteria for a commons: http://www.slideshare.net/edsonm/makers-and-the-commons

lections of artworks in the public domain, combined with the Internet's scope for making these collections accessible worldwide, has given rise to a new principle within the GLAM sector: That digitised resources should be set free as a cultural commons – a cultural quarry where users across the world can seek out and find building blocks for their own personal learning and development, and for their professional and creative work – because by rights the works belong to the public, and because this is the most efficient and sustainable way for the GLAM sector to fulfil its mission. As part of a commons our collections and knowledge can gain a wider reach, and have a real impact and value for millions of people in their everyday lives. [43]

As far as the Danish pilot project on free image sharing was concerned, we were particularly stirred and inspired by the Smithsonian Commons project, which aimed to transform the world's largest cultural institution's digitised collections into a commons that the public could freely use for research, learning, creativity, and innovation. That idea gave our own project new nourishment. [44] The Smithsonian Commons project was underpinned by a very clear principle: free and unhindered access to digitised collections should not be restricted to professionals within the GLAM and education sector; it should be given to the general public too; to the people who pay for the day-to-day operation of our institutions and who we are here to serve. The Internet and digitisation makes this possible. But something is holding us back.

The pilot project on image sharing had taught us that our own traditions for image licensing had become a roadblock that prevented us from fully utilising the potential inherent in our digitised collections. In order to discuss this issue – and to put free image sharing on the agenda within the Danish GLAM sector – I joined forces with The Danish Association of Museums (ODM) to launch the seminar Sharing is Caring. The title was not only chosen because it is easy to remember. The main message of the seminar is that to share digitised cultural heritage is a palpable way to care about it. When shared freely in digital formats, cul-

[44] The rationale behind the Smithsonian Commons project:
"Abstractly, [a commons] is a set of resources maintained in the public sphere for the use and benefit of everyone. Usually, commons are created because a property owner decides that a given set of resources – grass for grazing sheep, forests for parkland, software code, or intellectual property – will be more valuable if freely shared than if restricted. In the law, and in our understanding of the way the world works, we recognize that no idea stands alone, and that all innovation is built on the ideas and innovations of others. When creators are allowed free and unrestricted access to the work of others, through the public domain, fair use, a commons, or other means, innovation flourishes." (Edson, 2009) http://www.slideshare.net/edsonm/cil-2009-michael-edson-text-version

tural heritage dramatically increases its use value, allowing users to participate in defining and shaping how and where heritage objects and information can be used. By opening up and sharing our digital resources, we safeguard their relevance and value – not least to new generations of users.[37] ODM had shared interests in making the results of the pilot project more widely known, and in supporting knowledge sharing across institutions on common digital challenges. Colleagues from the DR archives, in charge of the Danish Cultural Heritage project, signed up as co-organisers.[38]

The organisers agreed that the seminar should do more than simply present and discuss the findings from the Danish pilot project on free image sharing. Our knowledge about the subject, and the inspiration to change our institutions and internal policies, came from outside. By inviting international pioneers in the field of accessibility to cultural heritage we wanted to learn from those institutions who were leading the way towards truly embracing the potential of the digital age. Therefore, it was a major asset for us to have Michael Edson, the person responsible for the Smithsonian Commons project, accept our invitation to deliver the keynote at the first Sharing is Caring seminar in 2011. [45]

[45] Michael Edson during a debate at Sharing is Caring 2011 which took place in the red Studio 4 in the DR Concert Hall. See Michael Edson's presentation from the seminar in 2011 http://www.slideshare.net/edsonm/michael-edson-let-us-go-boldly-into-the-future and his article p. 12 ff.

The seminar was international in scope and conducted in English. Despite regional and national differences across the GLAM sector the Internet has brought us closer together, creating a growing awareness that the same global technological trends and consumption patterns affect how we work, and the ways in which we interact with the world.

We hoped that the event would bring together the Danish GLAM sector for an informative and enlightening day where the potentials and challenges inherent in opening up access to our digital resources could be discussed, and give rise to a new shared awareness for this professional community. The first seminar in 2011 attracted a large number of participants from all over Denmark, from institutions large and small, from museums, libraries, archives, the education sector, and the Wikipedia community. The fact that *Sharing is Caring* also attracted participants from other Nordic countries served to highlight the fact that we had brought up a subject that was relevant across a range of institutional and national borders, and that we had a mutual interest in co-operating on developing the cultural sector of the 21st century.

Sharing is Caring 2011 had a focus on visions and technologies. [46] How do we prepare our collections for the digital age? And what are the ethical arguments in favour of introducing openness and sharing as cornerstones of contemporary museum practice? We were introduced to the Creative Commons licences, the principles behind an API (Application Programming Interface), and to why digitised cultural heritage is better off being shared and re-used than being kept firmly locked away. [47] The subsequent evaluation told us that we had succeeded in putting sharing and openness firmly on the agenda within the Danish GLAM sector. There was evident interest in moving on from talking about it to taking specific action. Equally evident was the need for a regular and recurring forum for discussing and sharing lessons learned about open standards.[39]

[46] Documentation of the Sharing is Caring seminars: http://vimeo.com/channels/sharingiscaring

[47] See for instance the contributions by Martin von Haller Grønbæk, p. 141, Lars Lundqvist, p. 169, and Jacob Wang, p. 178 ff.

[48] Shelley Bernstein at Sharing is Caring 2012, the Foyer Stage in the DR Concert Hall. See Shelley Bernstein's article p. 186 ff.

The 2011 seminar dealt with visions, principles, and technical platforms. [48] In 2012, prompted by responses to the first seminar, we addressed the realities of day-to-day work. As a result, Sharing is Caring 2012 was given the headline "Let's Get Real!" and presented examples of specific efforts, focusing on the challenges and lessons that arise when we open up and share our digitised resources and the authority to address and engage with it. Shelley Bernstein from Brooklyn Museum delivered one of the keynotes. Her pioneering work on user involvement pertaining to the museum's exhibitions and collections has inspired colleagues worldwide. At the seminar she presented the tangible results of the Brooklyn Museum's most recent project – *GO: a community-curated open studio project* – where local Brooklyn citizens had been deeply involved in suggesting and selecting artists for an exhibition at the museum.

Just as Michael Edson had delivered the reasoning behind a new OpenGLAM mindset in 2011, Shelley Bernstein's contribution in 2012 provided a compelling case study on how to move from thought to action.

8. IT'S YOUR CULTURAL HERITAGE. USE IT.[40]

"A time is marked not so much by ideas that are argued about as by ideas that are taken for granted. The character of an era hangs upon what needs no defence. Power runs with ideas that only the crazy would draw into doubt. The "taken for granted" is the test of sanity; "what everyone knows" is the line between us and them."

Lawrence Lessig, *The Future of Ideas*, 2001

The theme of Sharing is Caring 2012 – "Let's Get Real!" – was a call to action aimed as much at ourselves as at others. For some years we had focused our efforts on digital projects that had made us aware of the potential in opening up new ways of using our digitised collections, and new kinds of dialogue and interaction with the wider world.

"What can you do *today*?" This question was posed by Michael Edson when SMK's management team took counsel with him on open image licences in the autumn of 2011. At that point we did not have the digital infrastructure necessary to release large quantities of digitised images. Our digitised collections were still stored in a closed image database, and there was a lack of indexing to enable user-friendly search. Nevertheless, we could get started on a smaller scale. The answer to Edson's question was to take a small selection of highlights – ranging from the Italian Renaissance and Dutch 17th century art to the

Danish Golden Age and early Modernism – and translate this small, but exquisite sample of the collections into a pilot project on the use of open licences.

The objective of the pilot was to explore the consequences we could expect when moving away from conventional image sales to a policy of free access. Its outcome was to be measured using three parameters:

1. Would there be an increase in the general exposure and familiarity with the SMK collections?
2. Might new, valuable ways of using the freely available images arise?
3. Would the museum lose profits from photo sales?

Background

In June 2011 SMK was invited to contribute to the Google Art Project – Google's portal to world art. Google was planning to relaunch the Art Project website featuring a wide range of new museum partners.[41] The invitation prompted important internal deliberations at SMK: If we signed the contract with Google we would be transferring the use rights of professional photographic images of artworks in a publicly funded museum to a private company, effectively entering into a public-private partnership (PPP). In recent years such partnerships have offered state-subsidised cultural institutions the opportunity to mass-digitise huge collections rapidly and efficiently, and to become part of vast presentation and distribution platforms that few publicly funded museums have the capacity to develop themselves.

But the implications of such partnerships need careful consideration. For the private enterprise offering to shoulder the task of

digitisation and presentation for public GLAM institutions must also see some return on their investment. [49] In the case of the Google Art Project, Google wished to reserve the right to use the SMK images on all present and future Google platforms. One of the key issues discussed at SMK was the fact that Google Art Project users would not be allowed to download images from the website, using them as they saw fit; they would only be able to look at them and interact with them on Google's own platform and using Google's own tools. In other words, Google Art Project is a "walled garden" that prevents users from re-using images and data on their own premises. Was it admissible for us, as a public, tax-funded institution, to transfer the rights of use of our high-resolution images to a private enterprise? Free public access to SMK's physical collections was introduced in 2006. In the age of the Internet, it seemed an obvious choice to extend that free access to the digitised collections. The collections have been acquired by the state and belong to the public. [50] If the rights of use were to be shared, they ought to be shared with everyone.

Financial incentives

In addition to the ethical arguments there were also financial incentives for introducing free access. As had already been indicated by the pilot project on image sharing, money could be saved by transitioning from analogue, closed image licensing to a digital and open format. As far back as 2004 a study of business models for image licensing among US art museums had proven, what William Noel of the University of Pennsylvania calls "an open secret" within the cultural sector [51]; the fact that the vast majority of museums lose money on traditional photo sales; none can demonstrate a profit once the cost of administration and operation are included in the calculations.[42] [52]

So why are museums not jumping at the chance to change their policies, adopting more profitable business models? Of course

[49] In 2007, Jeff Ubois and Peter Kaufmann published an insightful paper about the implications of PPP: "Libraries have been digitizing portions of their collections for more than twenty years, but recent opportunities to work with private partners, such as Google, Microsoft, and others, on mass digitization has opened up possibilities that were unimaginable just a few years ago. Private funding, commercially developed technology, and market-oriented sensibilities together may generate larger aggregations of digitized books far sooner than the library community had dreamed possible. (…) When we fantasize about that future, we imagine a single way to search all digitized books, journals, and other media; a combined index of all the full texts that will enable research that is otherwise impossible; a variety of tools to facilitate working with these materials; and the ability to create personal subsets of materials for deeper investigation. These goals cannot be realized if each commercial partner puts a fence around the materials that it digitizes and requires its institutional partners to fence in their copies as well." (Ubois & Kaufmann, 2007)
The same arguments are a main premise for Europeana's Public Domain charter: "Europeana is publishing the Charter because the Public Domain is under threat. As Public Domain information is digitised, it is often becoming less accessible to those who own it: the public. Policymakers and funding bodies need to consider the implications of removing information from the Public Domain and the knock-on effect this has for creative enterprise, learning, research and the knowledge economy. When Public Domain material changes format from a book or a picture to a digital file it must not leave

museums have a real need for covering the costs of digitising their collections. However, several researchers within the field point out a general lack of documentation that museums are actually using income from photo sales to fund new digitisation – or even that they can defray their digitisation costs via conventional photo sales.[43] Conversely, there is substantial

the Public Domain. What has been held in trust for the public for generations, often at taxpayers' expense, should not enter the private sector when it is digitised."
From a press release "Europeana Public Domain Charter: Libraries, Museums and Archives support Europe's Heritage", 25 May 2010 http://bit.ly/10LdEH0
The full Public Domain Charter can be found here: http://www.publicdomaincharter.eu/

[50] In support of this reasoning we found important inspiration from a number of international institutions and colleagues, who for years have pleaded that the cultural heritage sector should contribute to the upholding of the public domain. In 2005, Ken Hamma published an article, which argues in favour of free access to digitised collections in the public domain in what he, with reference to Walter Benjamin, calls "an age of easier mechanical reproducibility": "Art museums and many other collecting institutions (…) hold a trove of public-domain works of art. These are works whose age precludes continued protection under copyright law. The works are the result of and evidence for human creativity over thousands of years, an activity museums celebrate by their very existence. For reasons that seem too frequently unexamined, many museums erect barriers that contribute to keeping quality images of public domain works out of the hands of the general public, of educators, and of the general milieu of creativity. In restricting access, art museums effectively take a stand against the creativity they otherwise celebrate. This conflict arises as a result of the widely accepted practice of asserting rights in the images that the museums make of the public domain works of art in their collections (…) The obligation to treat assets as held in public trust should replace the for-profit goal. To do otherwise, undermines the very nature of what such institutions were created to do." (Hamma, 2005)
http://www.dlib.org/dlib/november05/hamma/11hamma.html#1
In their Museums and the Web 2010 presentation, Cherry and Edson referred to Hamma's paper as a source for the development of a commons for cultural heritage: "Whose collections are they, anyway? In many cases, public funds have supported the purchase, storage, conservation, and academic research surrounding museum collections. The public already owns these resources: shouldn't the public be able to use them on-line, without restriction? (This rationale is especially pungent when the physical collections are in the public domain.)" (Edson & Cherry, 2010)
http://www.museumsandtheweb.com/mw2010/papers/edson-cherry/edson-cherry.html

[51] "…getting the public, both scholars and the general public, to pay for digital images … this is sort of an open secret, but in the vast majority of cases, this is not a business model that works." (Noel, 2012) http://blog.ted.com/2012/05/29/the-wide-open-future-of-the-art-museum-qa-with-william-noel/

[52] A study from 2004, commissioned by The Mellon Foundation and conducted by Simon Tanner (King's Digital Consultancy Services) among American art museums, concludes:
"All those interviewed were spending as much or more money to provide services as they received in revenue, and a high revenue generally represents large numbers of transactions or new imaging. (…) Everyone interviewed wants to recoup costs but almost none claimed to actually achieve or expected to achieve this (…) Even those services that claimed to recoup full costs generally did not account fully for salary costs or overhead expenses." (Tanner, 2004)

documentation that museums are losing money on expensive administrative workflows and the inefficient manual operations associated with them. This ought to prompt the museum sector to take a closer look at their established business models – and particularly at the ideologies that cause them to be upheld. Only rarely do financial motives stand alone when museums maintain their closed licensing models and demand payment for usage of their images. The three most important reasons given by museums for their decision to employ traditional image licences are:

1. Profits from photo sales (in order to fund new digitisation)
2. Protecting photo rights (to protect sources of income for the museum)
3. Controlling how reproductions of original artworks are used (to protect the integrity of the artist and the artwork).

Out of these three, the desire to protect the integrity of the work is regarded as the most compelling argument for museums. [53]

Digital vs. analogue

The fundamental difference between analogue and digital images gives rise to a new set of challenges for museums. If you have an analogue image and share it – give it to someone else – you no longer have it yourself. If you have a digital image and share it, you still keep a copy that is exactly the same. Copying digital formats is extremely easy, which means you cannot control and monitor digital images as easily as their analogue counterparts. We can, of course, try to control the use of digital images, but realistically any such endeavour is doomed to fail. [54] At the same time, restricting access to digitised collections will significantly reduce their online visibility and, hence, demand for their contents. As several museums have already found, offering open access to their digitised collections can have great potential,

[53] In a recently published study, Kristin Kelly refers to Tanner's report: "The report found that museums viewed revenue (the income from rights activities, which is credited either to the organization's general operating budget or to the department providing the service, as an offset to costs), licensing (the rights which are conferred and which may be managed in-house or by an outside commercial agent), and control (described by Tanner as crediting and promoting the host museum and honoring the artists and their work) as the three most significant considerations associated with images of works in their collections. Of these, control was the most important factor." (Kelly, 2013)

[54] Cory Doctorow calls this "technological realism". Recognising the easy reproducibility of digital media, he has put his books on the web for free use: "Doctorow's publishing philosophy is also informed by a measure of technological realism. Like many in the cyber community, he believes that "bits exist to be copied." He describes business models that depend on bits not being copied as "just dumb", and equates lawmakers who try to prop up these business models to "governments that sink fortunes into protecting people who insist on living on the slopes of active volcanoes." (Tapscott & Williams, 2008, p. 36)

[55] The Smithsonian Web and New Media Strategy dedicates a whole paragraph to the development of new business models based on a foundation of freely accessible resources. (Edson, 2008) http://smithsonian-webstrategy.wikispaces.com/Strategy+--+Table+of+Contents

allowing them to develop new business models on top of this free service. [55]

As far as the protection of the work's artistic integrity is concerned, it may seem natural to restrict and control the circulation and use of reproductions. Many museums require people to describe what they will use their images for, and to pay for the use. However, as soon as the digital image file has left the museum it can potentially be copied and shared ad infinitum – not because the users are dishonest or have criminal intentions, but for the simple reason that digital media allow for this possibility.

To provide an example: A user purchases a digital image file from a museum in order to use it in a PowerPoint presentation. The user shares her presentation on Slideshare. Another user downloads the presentation, likes the museum's image, and posts it on his blog. One of the blog's readers embeds the image on her Facebook page, where it is viewed by 20 friends. Three of those friends share the image with their network, etc. In just a few moments the original image file has been shared hundreds of times, and no museum has the capacity to monitor the digital spread, nor to take action against users who, knowingly or otherwise, contribute to the chain reaction. Digital media act like water – they find a way. [56]

What is more, this example of how digital images spread only extends to the museum's own official photographs of their artworks. Another dimension concerns the users' own digital photographs of objects on display in museums. With the advent of smartphones, the number of people with instant access to a camera has exploded. Even though many museums continue to enforce a "no photography" policy, no museum will ever have enough guards to fully prevent digital pictures of their exhibits from being taken. And the cameras used are effectively placed within sophisticated handheld mini-computers that make it easy

The generosity in allowing free access to digitised cultural heritage and encourage reuse is an element in the business model that should not be underestimated. A free foundation that fulfils users' basic needs and signals that the museum exist for them, paired with a combination of attractive extra options, offered if and when the need arises, is an efficient way to help users and create goodwill and loyalty to your institution. The tendency to combine a free base with a selection of extra services is seen elsewhere in the public sector, documented for instance at Open Cultural Heritage Data in the Nordic Countries, April 2013 in Malmö. http://digisam.se/index.php/konferensen

[56] A very real situation, which has similarities to the hypothetical example described here, is that pupils in schools daily use digital images from the internet in connection with teaching and learning. Peter Leth, who is also contributing to this anthology, points to the fact that the enclosing of digital images will mean a collective criminalisation of school pupils and expresses a growing need for a clear indication of whether your images are the 'look at' kind or the 'touch' kind.
"Technologies create possibilities and are, just as the knowledge hungry student, not preoccupied with rules and conditions (…) Technologies could probably have been created so that we were warned, e.g. when we right-click on an image in a Google search to copy or save. But we're not, so we are led to believe (perhaps also because it's easy to do so), that when it's so easy, it must also be legal." (Leth, 2011, p. 22 – in Danish only) Read more in Leth's article p. 251 ff.

[57] The case of “the yellow milkmaid” has lent its name to a Europeana publication about the potential for the cultural heritage sector in adopting open licenses: “‘The Milkmaid’, one of Johannes Vermeer’s most famous pieces, depicts a scene of a woman quietly pouring milk into a bowl. During a survey the Rijksmuseum discovered that there were over 10,000 copies of the image on the internet – mostly poor, yellowish reproductions. As a result of all of these low-quality copies on the web, according to the Rijksmuseum, “people simply didn’t believe the postcards in our museum shop were showing the original painting. This was the trigger for us to put high-resolution images of the original work with open metadata on the web ourselves. Opening up our data is our best defence against the ‘yellow Milkmaid’”.” (Verwayen, Arnoldus & Kaufmann, 2011).
Johannes Vermeer, The Milkmaid, ca. 1657-58. SK-A-2344. Rijksmuseum Amsterdam. CC0.

to share one's pictures on the Internet where they can spread at lightning speed.[44]

Constructive action

Museums may choose to bemoan the situation, claiming that the Internet is teeming with lawbreakers. They can use watermarks and legal action to try to staunch the Internet's culture of sharing. However, there is much to suggest that such endeavours are as fruitless as fighting windmills. Instead, they could choose to realise that evolution cannot be stopped and try to turn the situation to their own advantage. At the Rijksmuseum in Amsterdam they have chosen the latter option. Studies had shown that the Internet was flooded by thousands of poor copies of the museum's famous Vermeer painting *The Milkmaid* – a hodgepodge of amateur snapshots, scans from art books and postcards, and the like. This meant that people did not "believe" the museum's authoritative reproductions of the artwork. As a result, the Rijksmuseum decided to release their own high-resolution images for use on the Internet. [57] The objective was to "flush out the poor copies", replacing them with true and accurate reproductions instead. [58]

In doing so the Rijksmuseum is in keeping with the official line laid down by Europeana in its Public Domain Charter, which identifies the public domain as a fundamental precondition for society's social and economic wellbeing:

- The Public Domain must be preserved
- A healthy Public Domain is essential to the social and economic wellbeing of society

[58] Lizzy Jongma, the Rijksmuseum's data manager, says: "Our primary mission is to 'tell the truth'. We put as much quality in our work as possible. That is why we share the best quality we have. Au contraire to other museums, we don't downgrade our images. (…) We want people to see and enjoy a true representation of our art and not some ugly downgraded image. The report of the Yellow Milkmaid is about our mission to share the best images we have, to stop all the ugly/wrong images. If people google the Milkmaid by Vermeer then we want them to find our good quality image, not all the bad and deformed versions of this beautiful painting."
From an e-mail on 6 September 2012, where Lizzy Jongma explains the motives behind the Rijksmuseum's free access policy to their images and metadata. Jongma has kindly given me permission to quote from the e-mail.

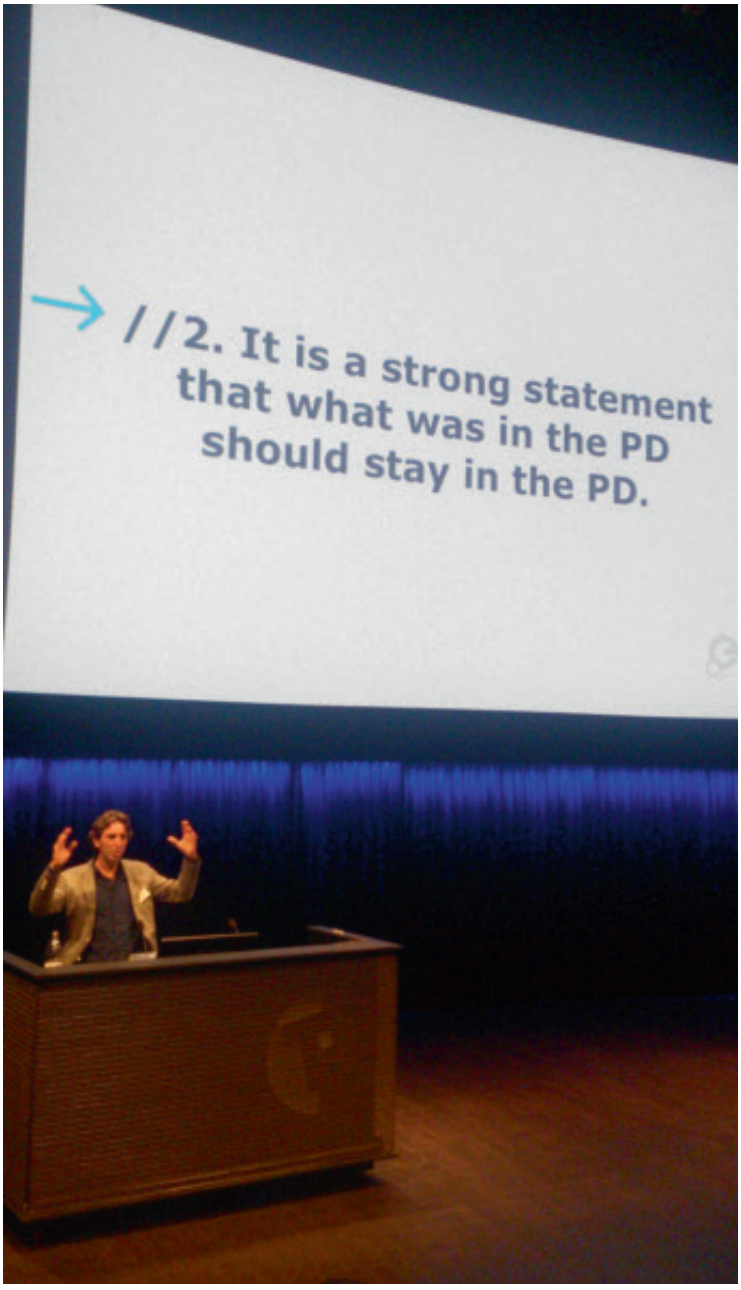
- Digitisation of Public Domain knowledge does not create new rights over it[45] [59]

An efficient tool to help prevent improper or undesired use of museum collections is to employ user-friendly open licences that clearly state what users can and cannot do with the images. Creative Commons is the most widespread open license system. Creative Commons offers an alternative to the inflexibility of traditional copyright. Simply put, it is a matter of "some rights reserved" instead of "all rights reserved". Creative Commons is a global system comprising four elements that can be combined in various constellations to form six basic licences to match each right owner's wishes and needs. For example, an artist may allow others to share and use reproductions of her work privately as long as she is credited, but still claim exclusive rights to use the work commercially (Creative Commons Attribution Non-Commercial or CC BY-NC). Or she can allow others to process her picture and make money from derived works while also requiring that derived works are licensed on equal terms (Creative Commons Attribution Share-Alike or CC BY-SA). In addition to the six basic licences the Creative Commons system offers two other options, CC0 (Creative Commons Zero) that dedicates copyrighted material to the public domain, and the Public Domain Mark that clearly indicates that a work of art is already in the public domain.[46] [60]

There is a clear dividing line between artworks in the public domain and copyrighted works of art. But considering the international GLAM sector, there are millions of artworks and objects that have long since become exempt from copyright and are in the public domain. When digitised, such collections can heighten the overall quality of the Internet's freely available cultural heritage resources – provided that they are opened up to free sharing and re-use.

[60] Read more about the Creative Commons license system in Martin von Haller Grønbæk's article p. 141 ff.

[59] At the Open Knowledge Festival in Helsinki, September 2012, Europeana's Deputy Director Harry Verwayen announced that the entire dataset of Europeana was given over to the Public Domain (PD).



Trailblazers

Over the course of just a few years, a number of international art collections have introduced policies of free access to their digitised collections in the public domain.[47] In connection with SMK's decision-making process we explored how some of them use open licences. These entirely informal studies show that the matter is addressed in very different ways. Here I will briefly review four examples that have particularly influenced SMK's choice of an open licence.

1. Rijksmuseum, Amsterdam

The Rijksmuseum has established itself as a beacon of openness by transferring 125,000 high-resolution images of non-copyrighted works to the public domain. The Rijksmuseum is home to one of the largest and most important art collections in Europe, a fact which lends particular significance to their decision. [61] With the launch of Rijksstudio – a creative hub on the museum's new website – the Rijksmuseum has taken on the role as catalyst for the user's creativity. Here, users are encouraged to create their own personal collections and to share, download, remix, and reuse images, e.g. in collages, tattoos, and music videos. The Rijksmuseum calls on users to "touch" the images and do things with them, because – as the museum's Director of Collections Taco Dibbits says – it is when you get close to the works, process them, and cut out details, that you truly remember them.[48] What is more, the museum has released their collection data through an API that allows the data to be downloaded and used by external developers and programmers free of charge. More than 30 new applications based on the Rijksmuseum dataset have been developed, offering external perspectives on how the museum's collection can be used. [62] This places the Rijksmuseum among the most progressive art museums of the digital age.

[61] In an interview with Christoph Müller Girod, Lizzy Jongma explains the Rijksmuseum's mission: "We are in the fortunate situation that a lot of our objects are from the 17th and 18th century or even much older so they are in the Public Domain. We can't claim ownership over them but we also don't need to check any legal things with them. So we can open up our collections fairly easily (…) Everything we do is with public funding and our main goal is to educate people about the history of the Netherlands and the art of the Dutch. So if we claim ownership and keep this to ourselves, we wouldn't be able to fulfil our own policy (…) Our goal is to share as much as possible with anyone because being an educational institution and being a museum and taking care of our Dutch heritage is so much more important than telling everyone that 'this is ours'." http://vimeo.com/41236531

[62] Read more about the strategy behind the Rijksmuseum's open access policy: http://mw2013.museumsandtheweb.com/paper/rijksstudio-make-your-own-masterpiece/ Hear about the thinking behind Rijksstudio: http://www.youtube.com/watch?feature=player_embedded&v=5MzgijfLV-E#! Read about the Rijksmuseum's API and get an API-key: https://www.rijsmuseum.nl/en/api

However, a certain lack of consistency has been weighing down the Rijksmuseum's open access policy for a period of time. The API provides free access to the complete dataset, which bears the CC0 licence, as well as to 125,000 images of works in the public domain in high resolution. In Rijksstudio, however, there was from the outset a curious restriction on the download of image files, prescribing that they could only be downloaded for "personal use". Users encountering the Rijksmuseum's images on this platform were thus given the impression that the images were limited to private use (equivalent of a CC BY-NC license) which directly contradicts their status as public domain. After continued critique from OpenGLAM experts in the Netherlands and abroad as well as pressure from Europeana, this restriction was removed in October 2013, one year after the launch of Rijksstudio. And the images have now been made available in extremely high resolution and quality.

2. Yale University, New Haven

In May 2011 Yale University's museums, libraries, and archives announced a policy of open access that set new standards for openness in the international cultural sector. A decision was made to transfer all images of non-copyrighted works in their collections – numbering more than 250,000 – to the public domain. The decision was based on the belief that open access would be the best way of supporting the Yale mission in the digital age. [63]

Even so, Yale University's 20 individual collections hold images and archivalia that are subject to very different stages of digital accessibility. Even though Yale's official policy makes the images part of the public domain, this does not mean that all 250,000 images can now be downloaded via the Internet. Many items have not been recorded digitally and cannot be found in Internet searches – making this happen will require years of work – but the policy is clear. As yet, the Yale Center for British Art is one of the collections that best demonstrates the intentions within Yale's policy of open access.[49]

[63] In a memorandum from May 2011, Yale University announces: "The preservation, transmission, and advancement of knowledge in the digital age are promoted by the unencumbered use and reuse of digitized content for research, teaching, learning, and creative activities. The goal of digitization is to harness the power of network technology to support these core objectives of the University by enabling global access to the collections in Yale's museums, libraries and archives. Yale University can best realize this goal by making digital copies of works from the collections available for use without limitations. To this end, we propose that Yale University neither mediate access to nor restrict use of items digitized from its museums, libraries, and archives which have been made openly available through the University's electronic interfaces, and which are no longer under copyright or otherwise restricted."
Yale also refers to Tanner's report from 2004 as documentation for the fact that free access is the most feasible business model: "Studies show that the cost of managing intellectual property and maintaining payment structures in cultural heritage collections almost always outweighs actual revenue. When transferred to the world of online digital resources, the cost of intellectual property transactions becomes even more onerous as it requires technical and legal frameworks for rights management that compromise the efficiency of the networked environment. Allowing public domain works to freely circulate is the most effective response." (Briggs, Meyers, Reynolds, Turner & Bellinger, 2011)
http://ydc2.yale.edu/sites/default/files/OpenAccessLAMSFinal.pdf

3. National Gallery of Art, Washington D.C.

In March 2012 another major US art collection, the National Gallery of Art, followed suit by launching NGA Images: more than 20,000 high-resolution images of works in the public domain. With their open policy the NGA hopes to ensure the continued relevance of their collections through active usage, and like the Rijksmuseum they hope to eliminate the poor reproductions of the museum's works online, gradually causing them to be replaced by high-quality authoritative versions. [64]

The launch of NGA Images was also prompted by financial concerns. A cost-benefit analysis of image transactions between the NGA and another giant among US museums, The Metropolitan Museum of Art in New York, revealed that the two museums, who were by far each other's main customers, paid each other almost identical amounts every year for using each other's images. This became a decisive argument prompting both museums to adopt a new, more lenient image licensing policy.[50]

4. Walters Art Museum, Baltimore

A final example of what has informed SMK's decision to start the transition towards open access is provided by the Walters Art Museum, an American collection of artworks and artefacts ranging from South-East Asian sculptures to medieval manuscripts and European 19th century painting. Images of those parts of the collections that are not under copyright have consistently been transferred to the public domain – excepting images of three-dimensional objects that are under the CC BY-SA licence – and can be downloaded from the website with a single click. The quality of images available for download, however, is fluctuating.

The Walters' reason for adopting an open access policy is that the museum is a public institution funded by taxpayer's money, which means that they should return the resources, for which the public has paid, to the public. The museum also emphasises that this is not just a matter of ethics and generosity. According

[64] In NGA's open access policy it says: "The mission of the National Gallery of Art is to serve the United States of America in a national role by preserving, collecting, exhibiting, and fostering the understanding of works of art at the highest possible museum and scholarly standards. In pursuing this mission, the Gallery makes its collection images and information available to scholars, educators, and the general public to support research, teaching, and personal enrichment; to promote interdisciplinary research; and to nurture an appreciation of all that inspires great works of art. The Gallery's open access policy is a natural extension of this mission, and in applying the policy in a global digital environment, the Gallery also expands and enhances its educational and scholarly outreach. The Gallery believes that increased access to high quality images of its works of art fuels knowledge, scholarship, and innovation, inspiring uses that continually transform the way we see and understand the world of art." https://images.nga.gov/en/page/openaccess.html
Alan Newman, Chief of the Division of Imaging & Visual Services, explains what NGA is hoping to achieve with their open access-policy: "A goal we have is to see our public domain images used ubiquitously. By offering free self-serve high-quality authoritative images we hope to flush all the bad legacy images out of the culture." That legacy is one that haunts most GLAMs, who have to cope with countless poor quality reproductions of their mainly public domain artworks being used on the internet websites as diverse as Wikipedia, Pinterest, and Cafe Press. By releasing high resolution public domain images for free download, and promoting that ac-

to The Walters it simply makes more sense to adopt an open access policy in the digital age – in terms of marketing as well as from a strictly business-related point of view. [65]

Inconsistent use of open licences

Frontrunners such as the institutions listed above have set new standards for image licensing in the cultural sector, and judging by the growing list of OpenGLAM collections we have only seen the early beginnings of the paradigm shift they is heralding. However, their different ways of using open licences is a sign that this is an area where the cultural sector is venturing into uncharted terrain, making its progress through trial and error –

cess, GLAMs can avoid this plague of "bad legacy images." (…) "Of course, we would love to see Wikipedia, Wikimedia and any and all channels using our images," says Alan. This invites the inevitable mass upload that Wikimedia's volunteers are known for: using bots to download high res openly licensed images from websites, and uploading the images, and related metadata and attribution, to Wikimedia's repository of free media, Commons. Those files will then be able to be placed in thousands of Wikipedia articles in hundreds of languages, which will be viewed by millions of people around the world. They'll also have a chance to download those images. Talk about a legacy." (Stierch, 2013) http://openglam.org/2013/01/17/keep-it-free-national-gallery-of-art-us-creates-open-access-policy/

[65] Then curator at Walter's Art Museum, William Noel, explains the reasoning behind the museum's open access policy: "… Creative Commons data is real data. It's data that people can really use. It's all about access, and access is about several things: licensing and publishing the raw data. Any data that you capture should be available to be the public (…) The other important thing is to put the data in places where people can find it – making the data, as it were, promiscuous. That means putting it on Flickr, Pinterest, that sort of thing; these are forums people are used to using and commenting on, which they already use to build datasets of their own. The Walters is a museum that's free to the public, and to be public these days is to be on the Internet. Therefore, to be a public museum your digital data should be free. And the great thing about digital data, particularly of historic collections, is that they're the greatest advert that these collections have. So: Why on Earth would you limit how people can use them? The digital data is not a threat to the real data, it's just an advertisement that only increases the aura of the original, so there just doesn't seem to be any point in putting restrictions on the data. There is the further fact that the data is funded by taxpayers' money. So it didn't seem fair to limit what taxpayers could do with the data that they paid for. (…) people go to the Louvre because they've seen the Mona Lisa; the reason people might not be going to an institution is because they don't know what's in your institution. Digitization is a way to address that issue, in a way that (…) simply wasn't possible before. People go to museums because they go and see what they already know, so you've got to make your collections known. Frankly, you can write about it, but the best thing you can do is to put out free images of it. This is not something you do out of generosity, this is something you do because it makes branding sense, and it even makes business sense. So that's what's in it for the institution." (Noel, 2012) http://blog.ted.com/2012/05/29/the-wide-open-future-of-the-art-museum-qa-with-william-noel/

as is true of digital technologies in general. Up until now, there is no established practice on how cultural institutions handle licensing of digitised works in the public domain, and as has been demonstrated in the above the open licences are applied and graded in variable ways.

As mentioned, Europeana's Public Domain charter clearly states that digitisation of works in the public domain should not lead to new restrictions on the digital copies. None the less, such practices are still widespread. And even though Creative Commons licences should in principle only be applied to copyrighted works – as an *alternative* to copyright – they are frequently applied to works that legally belong in the public domain and so should bear no license of any kind.[51] At its heart this discussion is both legal and ethical in nature. The question of how open licensing should be utilised and interpreted is not yet resolved, no answers have been carved in stone, and even though it is possible to point to certain discrepancies it is nevertheless definite progress for the usability of cultural heritage that we are moving towards "some rights reserved" rather than "all rights reserved".

Regardless of choice of licensing, it is crucial to clearly communicate all rights and restrictions pertaining to the usage of the images. One of the advantages of the Creative Commons licences is that they relieve users of the burden of tracking down the rightsholders to ask for specific permission to use a work. The licence states – in plain language and in machine-readable code – what you can and cannot do. This saves a lot of time-consuming labour for users and institutions alike. Users also benefit from having many institutions and artists use the same system. It increases the chances that people recognise and are familiar with the licences and what they entail – and it reduces the risk that they become lost in a jungle of different license types or misinterpret the rightsholders' injunctions.[52]

SMK's first ventures into Creative Commons

In recent years SMK's photographers have been far-sighted in their work digitising the museum's collections. They have created one of the museum's most important assets – thousands of high quality digital images – but so far we have been shutting this asset away, preventing it from having its full potential impact on present-day media terms. This informed SMK's decision to test the Creative Commons Attribution licence (CC BY) on the body of images we contributed to the Google Art Project.[53] For practical reasons we had – like most other museums participating in the Google Art Project – exclusively contributed works belonging to the public domain, thereby evading the need to handle moral rights issues involving a commercial third party.

During the decision-making process we carefully considered all the various Creative Commons licences, gradually moving from leaning towards the most restrictive licence – Creative Commons Attribution Non-Commercial No-Derivatives (CC BY-NC-ND), which does not allow any commercial use nor any derivative works – to ultimately choose the least restrictive of the licences, CC BY, which allows for all kinds of usage, including commercial use, as long as the source of the image is credited. The explanation for this gradual movement along the scale of openness was a growing awareness of what we would miss out on by choosing a more restrictive licence. One of the objectives for trying out open licences with SMK's works was to encourage users to share our images via social media. We also wanted the Wikimedia Commons to harvest our images, enabling them to be used in Wikipedia – the most used encyclopaedia in the world, consulted by millions of users every day. Wikipedia has a high ranking within the Google search hierarchy and consistently links back to the original source of the image. So when Wikimedia harvests SMK's images we can harvest another benefit in turn: the museum's artworks will get a higher ranking in Google searches. Both of

these objectives required us to use CC BY-SA or CC BY at the least; otherwise it would not be possible to share our images in Wikipedia and several other social media platforms.[54] Why did SMK choose the CC BY license instead of consequently handing over our images of public domain artworks to the public domain with a CC0 dedication or Public Domain Mark? Being a research-based art museum, we wished to make users aware that using credits is crucial for enabling others to discover the original source. [66]

[66] For an elaboration of the reasoning behind SMK's decision to use the CC BY license, see the museum's case study on the Creative Commons' wiki: http://wiki.creativecommons.org/Case_Studies/Highlights_from_SMK,_The_National_Gallery_of_Denmark
Concerns over correct attribution is shared by many GLAM-institutions, when considering open licenses. Often licenses conditioned on attribution are preferred, because institutions need to be able to track the use of their data and content to document the effect and value of their digital efforts. (Ridge, 2013) http://openobjects.blogspot.nl/2013/04/an-even-briefer-history-of-open.html

At SMK we created a very simple solution. The images included in the Google Art Project have been made available for free download in high-resolution equipped with the CC BY licence. A simple right-click allows you to download a large image file to your own computer, while a left-click lets you read a user-friendly explanation of the CC BY licence. We only had few months and no separate budget to create a technical solution that would be able to handle downloads of large image files through our current CMS system. For this reason the technical solution is very simple, but functional nevertheless. The image files are linked to existing pages with information about the museum's highlights; pages that include brief introductory texts and videos. All that we needed to produce was an introductory page about free downloads, a page about the CC BY licence, and finally a zip file allowing you to download all of the images as one compressed file.[55]

Initial results

Free download at smk.dk was introduced on 18 April 2012. After a year (May 2013) we can cautiously conclude that the three criteria employed to measure the success of the venture all show a positive trend.

1. Do we see greater exposure of SMK's collections and brand?

The page offering free download of SMK's highlights has proven a major attraction on the website. The page became the 14th most visited of all SMK pages in 2012 and attracts a very different kind of traffic than the rest of the site. Many external sites and blogs link to the page, and in 2012 more than 7,400 visitors had downloaded one or more works. The geographic distribution of these users shows that SMK has achieved a significant international branding effect by making images freely available for download. More than 34% of these downloads are made from abroad – mostly from the US, UK, Italy, Russia, and Germany.[56]

SMK has established a position – in Denmark and abroad – as one of the early adopters of open licences in the museum world. Making high-quality and high-resolution images available has prompted greater interest from important international collaborators such as Europeana, the Open Knowledge Foundation, and Creative Commons, and it has placed SMK in the same category as important foreign collections that employ open licences.

2. Do the open images give rise to new, valuable forms of usage?

SMK's open images are shared and reused in new contexts, for example as textile prints, Images in blog entries, and as part of artistic remixes shared via social media. As was expected, the Wikimedia Commons has harvested the museum's open images, and Wikipedia Denmark has assigned two wikipedians to prepare articles about the works, the artists behind them, and related topics.[57] On Wikipedia, SMK's images are at the time of writing shown a total of 731 times on 544 separate Wikipedia pages written in 27 languages – a notable effect based on the small body of images released by SMK so far.[58] Images from SMK are used to illustrate articles on subjects from ancient mythol-

[67] Read more in Peter Leth's article p. 251 ff, and see how the images and their data are made into teaching and learning tools, on his blog http://sharecare.skoleblogs.dk/

ogy in Indonesian, Arabic, and Hebrew, entries on the "Man of Sorrows" motif in German and Spanish, a French article on trompe l'oeil painting, and the article on Camille Saint Saëns' opera *Samson et Dalila* on the English Wikipedia page. One of the most promising new forms of usage of SMK images concerns their use in Danish schools. Now, these images are ready to be integrated into the schools' digital education tools, making it easy for pupils and students to find and use the images – and to provide the correct credits when doing so. [67]

3. Is SMK losing income generated by photo sales?

Like many other museums SMK has not carried out a cost-benefit analysis of its traditional business model for photo sales that includes the costs of administration and salaries. Hence we have no firm basis for assessing the true financial consequences of open licensing. We can, however, ascertain that the total external sales of photographs has not diminished since the museum released images for free download in April 2012. Rather, it has increased slightly.[59] It would seem, then, that the income generated by photo sales has not been affected by the fact that some of the museum's most popular pictures are now available for free download – in spite of the fact that the SMK photo department consistently refers users who enquire about the open images to the download page at smk.dk. While we are not sure why, this might suggest that the greater exposure of the collections prompted by the use of open licences brings more traffic to the website, which in turn generates added sales of SMK images, many of which are still licensed traditionally. Concurrently with the introduction of a general open access policy on all SMK's digitized collections in the public domain we will closely monitor the development in traffic to smk.dk, traffic sources, and new use forms that create exposure and branding of the museum on other platforms.

Overall we can conclude that we have seen a great impact from releasing just a small body of open images. This suggests that

volume is not necessarily crucial; equally important is the strong message sent by taking a definite step towards a policy of open access.

A hole in the wall

With the decision to make SMK's contribution to the Google Art Project a collection of free images available to the general public we have sought to create a small hole in the "walled garden" of the Google Art Project. In so doing we wished to signal that presenting art digitally gains in value and impact by using open licences – this being true from the perspective of the users as well as the museums.

When selecting which SMK artwork should be the museum's giga-pixel image in the Google Art Project, we chose to involve the users directly in the decision-making process.[60] We arranged a public poll on Google + and Facebook, listing ten candidates from our collections that users could vote for. We then left it up to a democratic voting process to determine which work the Google specialists should digitise in extreme high resolution format. Over the course of the two-week voting process we received 1,652 votes from individuals in 20 nations.[61] And the voters did more than vote; they also commented on the various works of art, discussed what they were about, and helped each other find sources for the subjects depicted in the artworks.[62] The winner of the poll was L.A. Ring's painting *Whitewashing the Old House* from 1908, which made this painting part of the body of open images, thereby bringing the total tally to 160 high-resolution images. [68] Compared with the Rijksmuseum's or Yale's open collections this is indeed "starting small" but it is a start.

The Google Art Project has applauded and promoted SMK's initiatives to create greater openness and inclusion within the framework provided by their platform. The Google Art Project's

[68] The winner of SMK's Google gigapixel poll was L. A. Ring's painting Whitewashing the old house (1908). KMS4223. Experience the image in gigapixel resolution at Google Cultural Institute: http://www.google.com/culturalinstitute/asset-viewer/whitewashing-the-old-house/iAF9eXkvWzfJ9g?projectId=art-project and download it at smk.dk: http://www.smk.dk/en/explore-the-art/highlights/laurits-andersen-ring-whitewashing-the-old-house/ CC BY 3.0 SMK.

walled garden culture can be seen as an expression of the fact that the project represents a collaboration between many different institutions with different attitudes to sharing digitised materials. Critics have pointed out that Google has as yet neglected the opportunity to use the Art Project to encourage a general willingness among cultural institutions worldwide to open up their collections, letting them form part of the Internet's open remix culture.[63] The Art Project could, as an extremely attractive platform for museums across the globe *and* in keeping with Google's overall policies, actively advocate open licensing of art collections, thereby flinging open the gates to the walled garden. Having said that, the Google Art Project has – by making it compulsory for all museum partners to contribute high-resolution images – successfully demonstrated the tremendous difference that large, high-resolution image files makes for the digital appreciation of art, thereby raising the bar for online museum communication. [69]

9. OPPORTUNITIES ARISE

"Digital tools dramatically change the horizon of opportunity for those who could create something new."

Lawrence Lessig, *The Future of Ideas*, 2001

SMK's use of Creative Commons licences is motivated by a desire to encourage sharing and creative reuse of our digitised collections. The pilot project on image sharing informed us that the need for openly licensed images is on the rise – not just in the interaction between museums, but also in the education sector, in Wikipedia and the Internet in general – and that there is a growing will among Danish museums to share their images. In order to translate knowledge into action, SMK has launched a number of concrete projects that prompt museums to share

[69] The Google Art Project is highlighted as a source of inspiration for the Rijksmuseum's decision to make large images the core of their new website: "Google has thrown a pebble into the pond of the museum world with its Google Art Project. By deliberately opting to display large images in high resolution, Google has gone further than many individual museums or partnerships have previously dared. The Google Art Project can be called an eye-opener in more ways than one." (Gorgels, 2013)
http://mw2013.museum-sandtheweb.com/paper/rijksstudio-make-your-own-masterpiece/

their digitised collections – and users to make use of them in new, interactive ways.

Art Stories unfolding

HintMe is the result of an experimental pilot project with the objective to build a shared mobile communication platform, exclusively containing open images.[64] The platform was developed as a collaborative effort involving 9 Danish art museums and is based on three fundamental principles.

1. All images in the mobile platform carry Creative Commons licences – to realise the intentions of sharing our digitised collections
2. The technical solution is based on an existing platform rather than on building a new one from scratch – to save money on expensive development and maintenance
3. Users take part in the development of the platform's concept and content – to ensure that it will meet the users' real needs

HintMe is an attempt to put into practice the core vision of Art Stories: Linking up different collections on the Internet, referring users to other institutions, and facilitating a multivoiced dialogue about art. HintMe simplifies and radicalises the concept behind Art Stories. The point of entry is the artwork itself, which is accompanied by short comments (hints). These hints primarily act as keys to taking a closer look at the work but can also point to a wealth of other online content. Users can get hints pointing to particularly interesting features of a given work. And they can offer up their own hints, for instance sharing details they have noticed, or asking questions of other users or of the museums. HintMe is open to anyone who logs on, allowing them to share their thoughts and experiences.[65] [70]

[70] HintMe offers users keys to look closer at artworks, and encourages dialogue bewteen users and museums. From a user test of the beta version at SMK, 2012. The paintings are by the Danish artist N. A. Abildgaard (1743-1809).

Background

The project was born as an experiment with two objectives:

- Prompting more widespread adoption of open licences among Danish art museums
- Developing a shared, sustainable mobile platform on a limited budget

Over the course of 2010-11 the general use of smartphones exploded. Online traffic to museum websites via handheld devices was seeing strong growth, and many museums were already exploring the potentials offered by mobile platforms. Handheld devices with Internet access hold great potential for museum communication; they can encourage users to take a closer look at art, embrace outside impulses and perspectives, and facili-

tate dialogue between users and museums. [71] HintMe offers partners a chance to be part of a mobile platform in return for sharing their digitised images with open licences. The shared mobile platform was designed to be scalable. It is a responsive website that adjusts to any Internet-connected device, be it smartphone, tablet, laptop or desktop. The content is produced on Twitter, an internationally widespread social medium, and any museum willing to sign their name to the three basic principles are welcome to use the HintMe platform.[66]

Challenges

To the project participants, it seemed like common sense to create common solutions to common challenges. This proved accurate in many ways. Over the course of the pilot project the partners agreed to promote the use of open licences for images of artworks in the public domain, to co-ordinate content across our collections, and to communicate via a shared platform with a consistent, uniform design that will be familiar to users regardless of where they come across HintMe. In practice, however, we have realised that such co-ordinated efforts can be rather fragile affairs as the various museums involved will experience fluctuations in their staffing, management, strategy, and financial situation. It has been difficult to ensure continuity in the production of content and to integrate HintMe fully in the museums' operation because some participants have changed jobs, come under new management, or quite simply been too busy working on other tasks. [72]

HintMe is envisioned as a catalyst for user learning and creativity in a way that Art Stories was not ready to become (see p. 52 ff.). However, it has not truly taken off yet. At this point, tests show that users appreciate the dialogue-based and open approach of HintMe, but at the same time they have little inclination to actively participate in the dialogue going on there. In keeping with the so-called 1 % rule, most users are mainly interested in

[71] In the anthology *Mobile Apps in Museums* (2010) several of the contributors summarise the special potential offered by smartphones and tablets, at the fingertips, so to speak, of the museum visitors:
"Mobile's disruptive power comes from its unique ability to offer the individual intimate, immediate and ubiquitous access combined with an unprecedented power to connect people with communities and conversations in global, social networks (…) Understanding that the new mobile devices today are also geo-spatially aware computers capable of supporting research, communication and collaboration challenges us to "think beyond the audio tour" and our silo-like approaches to digital initiatives. It also inspires us to reinvent the museum's relationship with its many publics by conceiving content and experiences that operate across platforms and disciplines, both inside the museum and beyond. (…) The museum can not only enter people's homes and classrooms, but can also be part of their daily commutes, their international travel, their work and leisure activities as never before. How will museums understand and cater to this huge range of contexts and demands for cultural content?" (Proctor, 2011, s. 9)
"… in the age of the smartphone and tablet, a mobile museum app doesn't have to be a tour. It can be an interactive book, a map, or catalogue. It can be a game, or something completely different – some new format that takes advantage of the combination of inputs, connectivity and computing power that mobile devices contain. (…) Mobile experiences hold the promise of giving museum visitors a new way to deepen their engagement with the institution, while bringing in and (hopefully) retaining new audiences

receiving hints and in following conversations between others.[67] Given the fact that one of the project principles is that the users' real needs should be listened to and accommodated, HintMe has been designed with a particular view to offering passive users hints that expand and enrich their art experience, as well as a resource of high-resolution images of museum artworks for anyone to use. HintMe was quietly launched in the summer of 2013, and work continues to make it more attractive for users to share their cognitive surplus through active contributions to the dialogue. For example, we work with Nina Simon's spectrum for "me-to-we" design, which offers specific and concrete methods

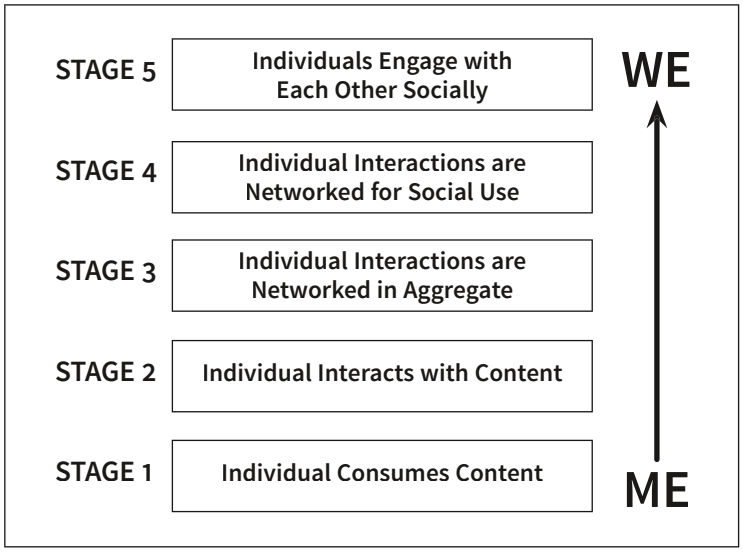
by making the museum more immediate, accessible and relevant." (Ed Rodley, "Looking Around vs. Looking Down: Incorporating Mobility into Your Experience Design", in Proctor, 2011, s. 34-35)

[72] During the development of HintMe, employees from the participating museums held a series of workshops, where we discussed and refined the concept of our shared platform, and explored new ways of working with our collections, in relation to users and across institutional borders.

for encouraging users to participate actively, co-operating with the museums and each other on producing what is at the core of it all – the content. [73]

Another very real challenge facing Danish museums in this context is the fact that Twitter has not yet become as widely used in Denmark as it has abroad. However, this trend only became clear at a late stage of the project when the first official survey of Twitter usage in Denmark was published in February 2013. Since then, new figures have shown strong growth in the general adoption of this social medium among Danes, so for now the museum partners have decided to continue to use Twitter and to develop new ways to encourage HintMe users to participate more actively in connection with art education courses, museum events, and online meetups between users and museum educators.[68]

[73] Nina Simon's model for me-to-we design.



Source: http://www.participatorymuseum.org/

Perspectives

By building a resource of openly licenced, interlinked museum images that can be accessed via handheld devices we wish to send a steady stream of digitised art out into the Internet, allowing it to be shared, commented on, processed creatively, and used for learning and teaching. HintMe is intended to be a miniature hub for open Danish art collections – a first step in the direction of providing open access to a major resource of high-quality Danish museum images. The intention is not to build an actual infrastructure for the free exchange of digitised culture – such an infrastructure is being developed on a large scale in the form of Europeana. As Jill Cousins says in her article (p. 132 ff), Europeana is working towards developing a European cultural commons aimed at gathering and making digitised culture from all European cultures freely available. With its obligation and dedication to inter-institutional collaboration, democratic dialogue with users, and open licences on high-resolution images, HintMe has attracted attention within Europeana. Free data is one thing, and within this field Europeana has firmly set a new standard. However, if we look specifically at freely available, reusable high-quality images, only few European cultural institutions have begun opening up their vaults. Even though HintMe only shares a few hundred images as yet, the fact that 9 art museums have agreed to apply open licences to their content nevertheless sends a strong signal. The project has been used as an example of the direction that Europeana wishes to pursue, and it has given Danish art museums a place in Europeana's work to develop a cultural commons.[69]

From metro fence to aesthetic playground

Copenhagen is currently expanding its public metro network. Up until 2018 a series of areas in the city are effectively converted into building sites, a fact which quite naturally causes some inconvenience and exasperation for many Copenhageners. One of the steps taken to counteract this is called Cool Construc-

tions – an ongoing initiative to decorate the large fences around metro building sites.[70] In 2013 SMK went into collaboration with the Copenhagen Metro Company responsible for constructing the Copenhagen metro. We invited local residents living in the immediate vicinity of two of the fences – by Frederik's Church and Solbjerg Square – to unleash their creativity on the museum's open images, modifying them, remixing them, cutting out details and using them to create their own collages to adorn the metro fences they look at every day. [74] The two fences have turned out very differently, the one at Solbjerg Square an analogue collage produced during a local festival in June 2013, the other a digital remix created in PhotoShop in close collaboration between young art pilots and local residents by Frederik's Church. Here, I will zoom in on the process behind the digital remix.

[74] From a workshop at Solbjerg Square, Frederiksberg, June 2013. The locals were invited to contribute to the creation of a giant collage for the metro fence there, by cutting and ripping printouts of SMK's open images and put the pieces together in new constellations.

Background

When SMK decided to provide open access to images, making them available for sharing and reuse, it added a new dimension to the museum's role as catalyst for the users' knowledge and creativity. In recent years museums have increasingly incorporated the role of facilitator in addition to their traditional roles as producer and conveyor. At this point many, if not most, museums have realised that they are not just places where visitors come to seek out art experiences and information; they also provide a backdrop for the users' creative activities.[71] As museums worldwide are experiencing when launching participatory initiatives, simply opening up their doors and saying "go on!" is not enough. User-generated content does not simply appear at the museum's convenience; it requires that they create incentives and firm frameworks for the user's contributions; they must facilitate the users' work and show that their contributions are valued and valuable. In other words, if we want to see people reusing and remixing SMK's free images, we must make real efforts to reach out to potentially interested

user groups, informing them about the new possibilities that the images represent; we must make specific frameworks and settings for creative work available, and – very importantly – we must provide users with motivation and inspiration to take part. [75]

Deep engagement

SMK's collaboration with the Copenhagen Metro Company has provided examples of how several of these challenges can be met:

- Clear incentives for users to participate: The project aimed at decorating the large metro fences that invade people's neighbourhoods for a while
- A specific framework: The large, green metro fences can be used like large canvases open to the users' creative work
- A clearly delineated task: To decorate the fences using SMK's open images
- A good cause: The project gave users the chance to turn an everyday nuisance into a creative task for the community, the end result being a thing of beauty for which they have ownership and which gives them pleasure when they look out the window.

The metro fences are a prominent feature of the Copenhagen urban space, offering an excellent public interface that can be used to demonstrate how anyone may now use and process images from the SMK collections. The fences allow the images to truly leave their museum context behind and have a real, positive impact on people's everyday lives. The fact that the project is associated with the metro construction work, which greatly changes living conditions for many people, has enabled us to move upwards within Nina Simons "me-to-we" spectrum, grappling with the uppermost levels that deal with creating links between individual user contributions and creating a good set-

[75] "As more people enjoy and become accustomed to participatory learning and entertainment experiences, they want to do more than just "attend" cultural events and institutions. The social Web has ushered in a dizzying set of tools and design patterns that make participation more accessible than ever. Visitors expect the ability to respond and be taken seriously. They expect the ability to discuss, share, and remix what they consume. When people can actively participate with cultural institutions, those places become central to cultural and community life." (Simon, 2010, p. ii)

[76] The art pilots are putting up the digital remix on the metro fence by Frederik's Church in Copenhagen, summer 2013.

ting for the users' social interaction and work towards a common cause. [76]

The initiative is influenced by Shelley Bernstein's work on user involvement at Brooklyn Museum. Exhibition projects such as *Click! A Crowd-Curated Exhibiton* and *GO: a community-curated open studio project* were aimed directly at local residents in Brooklyn, getting them deeply involved in selecting, shaping, and directing the content of exhibitions. [77] Bernstein's strategy rests on the assumption that once you go beyond the rather non-committal "like" button and encourage users to get truly involved, exercising their own judgement, creativity, and collaboration where it matters in their everyday lives – then art becomes vibrant and relevant. And that is when it becomes part of them.

[77] Read more in Shelley Bernstein's article p. 186 ff.
Blog archive for the two exhibition projects:
Click! http://www.brooklynmuseum.org/community/blogosphere/tag/click
GO http://www.brooklynmuseum.org/community/blogosphere/tag/go/

The young art pilots from the ULK Art Labs have acted as the face of SMK in the collaboration with the Metro Company.[72] ULK is a hub for young creatives who meet on a voluntary basis at SMK to work on participatory culture projects. When entering the metro fence project, the art pilots were already experienced facilitators of social, creative projects, but up until this point their projects had mainly been aimed at other young people. The metro fence project gave the art pilots a new challenge: facilitating creative collaboration across generational and social barriers. The art pilots are volunteers, and much of their motivation for working on the project was fuelled by the opportunity to develop their own ideas about how the museum's open images can be used, in dialogue with local residents.

The project revealed a generation gap in terms of attitudes to what you can and should do with digitised works of art. To the art pilots it felt utterly natural to remix the images, and their work has given rise to some very original and charming results. To some of the older residents such an approach initially felt almost like sacrilege. They preferred instead to utilise the high-resolution images to enlarge the artworks or zoom in on selected details, allowing viewers to admire them in their original, unmodified glory. This prompted some highly educational discussions and negotiations between the art pilots and local residents during the community meetings and workshops. For SMK, it was interesting to realise that our own efforts at letting museum images become part of the digital remix culture can in fact offend some users' view of art. It is no longer only the museum that relates to the issue of the artworks' integrity when they are offered up for unrestricted public consumption, but the users too.

At times it proved quite a challenge for the art pilots to accommodate the residents' different needs, to handle different and opposing ideas on aesthetics and underlying frustrations about the metro building project, and to ensure that all users' contributions and wishes were reflected in a communal and consistent form on the metro fences. Over the course of the project, the pilots and res-

idents agreed that not everyone can agree on what they consider beautiful and interesting to look at, but that the overall process, the reflection and exchange of ideas between generations and people with different aesthetic norms is in itself enriching. [78]

To me, the metro fence project truly brought the promise of SMK digital to life. At the launch of SMK digital in 2008 we had a vision stating that we wanted to act as a catalyst for the users' creativity. However, back then we were not truly ready to invest the resources and energy required to involve and work with users.[73] The collaboration between art pilots and Copenhagen residents, beleaguered by Metro construction work, points towards a new phase where SMK is better prepared to be open to and support the users' unpredictable interpretations of the museum's lifeblood: the collections. The project shows that we are moving away from a classic stewardship approach, which is mainly about protecting the artworks against damage, misrepresentation and abuse, towards a growing awareness of how we can maintain public interest in the collections, keeping them relevant by setting them free to be used for creative work, re-use and sharing on the users' own terms.

Imagination is the only limit

The metro fence project represents a learning process for SMK, allowing us to reap specific knowledge on how users want to reuse digitised art and how they create new value for themselves and each other during the process. As a museum, the act of opening up our digitised collections, allowing them to become building blocks in the users' hands, is about relinquishing our exclusive rights to defining what art is and what it can be used for. Kristina Alexanderson from Creative Commons Sweden has stated it very clearly: "The limits of our imagination is all that holds us back, and it often does!"[74] Museums possess highly specialised knowledge about cultural heritage, but we do not necessarily have the best ideas for creative reworking and reuse of the artworks. SMK's

[78] One of the residents living by Frederik's Church is watching as the metro fence is decorated with remixed art. She helped select the flower and plant motifs that were to adorn the fence beneath her windows, and assisted the art pilot at the computer to remix and create this specific composition.

job in the collaboration with the art pilots and the Copenhagen Metro Company was to make useful, high-quality material available, which helped users unearth the potential it offers. We hope that the project will boost public awareness of SMK's open images, provide examples of what people can do with them, and generate new creative initiatives and activities. As a starting point, the art pilots have released their PhotoShop files under the CC BY license in order to openly share their remixes and encourage new creative adaptations of SMK's open images [79]

[79] The remix on the fence by Frederik's Church got great reviews in the Danish press, and was voted best metro fence 2013 by the public.
From the award ceremony for "The Fence Post", November 2013. The 10,000 DKK which came with the award will be used for new user engagement activities in ULK. Download their work and follow their initiatives at www.ulk.dk

10. A FULLY DIGITAL MUSEUM?

"Learning to swim in a flood of images."
Larry Friedlander, from the opening address at Museums and the Web 2013

SMK viewed in the digital mirror

When we defined the vision for SMK digital in 2008, we said that we wanted to be a 100 % digital art museum. In hindsight the efforts to integrate digital media, methods, and approaches in SMK's workflow and mindset has taken the form of a long series of pilot

projects, one following the other in steady succession. For SMK the process has been tantamount to basic research, and this research has been accompanied by a growing awareness that a new professional field is emerging, one that is bound to be crucially important for cultural institutions' wellbeing and impact in the 21st century: Digital museum practice. The question is whether five years of working with SMK digital has made us a fully digital art museum? And whether such a strategy is even desirable? Anne Skovbo, who has worked as digital project manager in SMK digital, has reflected on what we have learned during the project, and her conclusions include the affirmation that sustainable digital museum practice requires what she calls digital management. [80]

Digital management – what does that mean? To put it in simple terms, it means that digital museum practice should be an integrated professional field in its own right, on a par with the museum's other areas of responsibility, and that an experienced expert should be assigned to manage the area and set professional goals and standards, just as the museum also has a director of collections and research, education, and conservation. In practice, however, it has proved less than simple to introduce digital management. In these years of financial austerity, SMK (like many other state-operated cultural institutions) is facing lower funding, fierce competition for private funds, and increasing political requirements to meet measurable objectives. Nevertheless, in the long run investing in digital management is necessary. As Ross Parry, Senior Lecturer in Museum Studies at Leicester University points out, digital museum practice has held its pilot status for long enough. The cultural heritage sector is ready to venture into more of a theoretical and historically founded practice infused by a methodical stringency in its use of digital media. [81] Among other things this requires thoroughly professional management of the digital endeavours at museums.

One of the main undercurrents in SMK's development work has been to strike the right balance between innovation and infrastructure. Today we see that the absence of a dedicated digital

[80] "And where are we now – at SMK? What have we seen in the mirror? Maybe more important than anything – that we're still a museum. This may sound obvious, but it isn't. For the role as a museum is in constant development and the 0-1 digits are pushing that process. Considering the museums' roles as collectors, there are many objects and much knowledge, adding weight, value and tradition. This stands in vibrant contrast to the digital pulse and speed of society in general. The contrast is a challenge and a gift, and we have realised that the need for management is not diminishing when chaos ensues. Digital management, that is." (Skovbo, 2013) http://www.smk.dk/udforsk-kunsten/smk-blogger/artikel/forandet-digitale-spejl/ (Danish only)

[81] In his article "Digital Heritage and the Rise of Theory in Museum Computing", Ross Parry argues for a theoretical disciplining of the academic field Digital Heritage, which can offer museums a methodical foundation on which to base their digital museum practice: "…theory should, ideally, provide a piece of analysis with an informed set of assumptions, a consistency and clarity of language, as well as a coherent method and rationale of working. To work in a theoretically informed way is to benefit from this depth, this precision of knowledge. It is to work within a critical framework." (Parry, 2010, p. 455)

management has meant that we have often launched exciting innovative projects without realising what they demanded in terms of infrastructure if they were to become fully operational. In other words, the museum's grand, forward-looking ambitions have not always been tempered by a realistic overview of what it would take to translate them into reality. [82]

Digital museum practice is a new field of work that had not been incorporated into SMK's strategy and practices before 2008. The DIY method (see [6]) has taken us far. But now we have reached a point where our work with digital media must be professionalised in order for us to increase the scale and sustainability of our initiatives, and give them value that reaches beyond the mainly symbolic. In the wake of five years of pilot efforts we now face a pressing need to measure and document the effect of our work – and adapt it accordingly. In addition to a digital management organisation, the museum will also require a new set of analytical skills that enable us to gather data on the effect of our digital work and learn from this information for our future work.[75] The professional skills required for such work has not been represented on our staff before, but now they are urgently required. This is yet another area where we must fulfil our responsibility as the main museum of art in Denmark, developing tools and guidelines that can benefit the Danish museum scene in general.

Conversely we also see that right from the outset SMK digital defined a set of forward-thinking and viable visions: Being a catalyst for users' creativity, working with openness and dialogue as fundamental principles, focusing on high-quality, high-resolution images as a particular attraction of an art collection in the digital age. These trends have only grown more pronounced since the launch of SMK digital. For example, we see that the Rijksmuseum's popular and critically acclaimed new website employs several of the basic principles that were also at the heart of Art Stories: Providing an outlet for the users' creativity, high-resolution zoomable images, images acting as points of entry to the

[82] In an internal evaluation of SMK digital, Anne Skovbo refers to the branch of *change management* called 'exploratory change strategy', which breaks with the idea that organisations are characterised by stable structures, where change can be planned and controlled. The explorative change strategy is focused on employee and organisational learning, involvement, creativity, innovation and development ability and a look at organisational processes rather than results on the bottom line:
"The process undertaken by the museum could also be called a period of exploratory change strategy, where, all at once, a network in the organisation was established, with change agents in all departments with projects and tasks, decisively changing the way the organisation as a whole works. We were informed by our advisory panels that we should get going, make mistakes and learn from them, and we have done that. We have been open to trying out more or less arbitrary possibilities and to give employees free rein to seek new boundaries. The exploratory approach matches digital media's many new technologies and user situations very well. But at the same time, this approach makes it difficult to set clear targets for various processes, e.g. because the target was impossible to define to begin with, or because it hasn't been prioritised to measure the effect before the next project takes over."
From an internal evaluation of SMK digital 2008-12. Skovbo's use of the term 'exploratory change strategy' is based on Elting and Hammer, 2009, p. 173.

experience, optional texts, layered design, and links to external sites that provide information already available online. The difference is that the Rijksmuseum website presents these trends in a fully realised form, created within the framework of an institution that has achieved a greater level of digital maturity. We find ourselves convinced that our visions are on the right track, but we still need to carry out important preliminary work: Update and consolidate our strategy, build infrastructure, and introduce professional digital management. Such foundations must be in place before we can truly engage in dialogue and interaction with the users and their cognitive surplus.

Wanted: A digital infrastructure

When SMK decided to release a small batch of high-resolution images the museum did not have the technological clout to handle free downloads. All data, images, and information were assembled manually, a process that was extremely time-consuming – particularly in view of the fact that open access has only been provided to such a tiny part of the collection. In spite of the small scale, the project has had a tremendous impact. The results have prompted the SMK management to pass the decision to release high-resolution images of all SMK works in the public domain. An open access policy for SMK is being developed, and the release of larger batches of images for free download will be made on an ongoing basis, as we build the necessary infrastructure and digitise more parts our collections. Almost 60% of the museum's paintings and sculptures are in the public domain, as is more than 80% of the collection of prints and drawings, and 100 % of the plaster cast collection. In other words it is possible to release a major part of SMK's digitised collections for unrestricted use and sharing. However, doing so will require investments in a viable and sustainable digital infrastructure that automates and rationalises the museum's workflows, and optimizes searchability of the digitised collections.[76]

The results we have to show as yet are only ripples on the surface. SMK digital has opened our eyes to the fact that real innovation resides in the construction of a digital infrastructure. Building a digital infrastructure will entail radical changes in the ways we think and work; changes that involve open access and standards in all aspects of our practice: When we collect and catalogue art, users can help select, index, and describe the works. When we develop open source database systems, other institutions and developers can benefit from our work. When we make our research and conservation processes transparent we pave the way for exchanging knowledge with the outside world – with professional peers and the general public alike.[77] And when there is unrestricted access to our collections we move away from one-way to dialogic communication that can encourage users to express their own views and creativity. We create a digital museum mindset.

Quite ironically, a crucial aspect of such a mindset rests on the fact that the digital element should often remain invisible. Digital technologies, tools, and platforms used in museum settings should not necessarily call attention to themselves; often, they should discreetly and seamlessly support the experience of the content they present: A fully integrated web that expands and enriches the users' art experience and enables them to act. [83] Our collections and knowledge remain among our most important assets: they must be preserved, ensuring their continued relevance, and we do so by sharing them. In this sense the vision of being a fully digital art museum still makes perfect sense today.

GLAM success in the digital age

In the winter of 2012-13 SMK once again brought together a panel of international advisors from around the world to attend a number of in-house workshops. The panel represented some of the world's leading cultural institutions: the Rijksmuseum, Tate, Brooklyn Museum and MoMA.[78] These institutions have all made a digital mindset part of their DNA. Their success in the digital age is based on long-term investments that specifically aim at

[83] Here we're inspired by Tate's new online strategy, whose basic principle is: "Digital is a Dimension in Everything We Do". http://www.tate.org.uk/research/publications/tate-papers/tate-online-strategy-2010-12

building a digital infrastructure and at translating their collections and knowledge into flexible digital formats. They have often benefited from substantial private funding when building their digital foundations. And they have benefited from strong and consistent digital management structures, or highly qualified employees within the digital field who have the authority to make decisions. These things pay off. [84]

As a result of these workshops, SMK is currently redefining a number of fundamental principles for our future digital efforts. These include that

[84] The digital team at SMK has been looking for advice on an ongoing basis from peers and counselors abroad, among others Shelley Bernstein, Brooklyn Museum, who visited SMK while she was in Copenhagen for Sharing is Caring 2012, Lizzy Jongma, who gave us advice about online collections and open licensing in February 2013, and Allegra Burnette, MoMA and Jesse Ringham, Tate, whom we had invited to join an internal workshop focussing on social media during Social Media Week 2013.

Jesse Ringham, Tate og Allegra Burnette, MoMA

Shelley Bernstein, Brooklyn Museum

Lizzy Jongma, Rijksmuseum

- We are data-driven in our work
- We use open source technology
- We carry out in-house development
- We work in an agile manner[79]
- We partner with other institutions to carry out joint development work
- We put well-defined user needs at the basis of our development work
- We involve users in the development process
- We provide unrestricted access to non-copyrighted data and images
- We facilitate sharing, reuse, sampling, and remixes of our digitised resources

At the time when SMK introduced open access to its images, no major studies on the effect of unrestricted access to data and digitised image collections were available. Only now do we begin to see documentation describing the impact of an open access policy – and consistent methods for measuring this impact. A comparative study from 2013, supported by The Mellon Foundation and carried out by Kristin Kelly, examines the impact of open licensing of digitised art collections among 11 British and American museums that have introduced varying forms of open access. The study provides a detailed account of the different interpretations of and rationales behind open access policies, among others at Yale University, The Metropolitan Museum of Art, and The National Gallery of Art in Washington – all of which have inspired SMK's decision to choose an open licence. The study affirms that the introduction of an open access policy is based on each museum's mission to promote awareness and use of public collections, that facilitating user-friendly access to digitised image collections and data requires investments in digital infrastructure, and finally that the museums which have introduced open access to their digitised collections have concluded that there is no reason to be concerned about the risk of abuse or damage to the integrity of the works. Rather, the study suggests that a policy of open access leads to greater awareness of – and positive attention to – the museums, their collections, and their brands. [85]

[85] In the study, William Noel, representative of Walter's Art Museum, is quoted for this statement: "We have lost almost all control, and this has been vital to our success." Kelly, 2013, p. 26-30. http://msc.mellon.org/research-reports/Open%20Access%20Report%2004%2025%2013-Final.pdf/view

Documentation of the effects of an open access policy and open licensing is now beginning to arrive from several different quarters. Entities such as Europeana, the UK Collections Trust, and the OpenGLAM network are collecting data that show the effects of opening up, and are also identifying viable parameters on how to measure the value of such openness – all in order to encourage support for joint, co-ordinated efforts that promote universal access to digitised culture. [86] Simon Tanner, whose 2004 study on image licensing in US museums provided important documentation of the fact that museums' traditional photo sales are unprofitable, published The Balanced Value Impact Model in 2012. The model offers a set of tried-and-tested methods for measuring the impact of digitisation and digital media presence on cultural heritage institutions. [87] These studies view the value of access to, and use of, digital culture from a wider perspective than the purely profit-oriented. According to these sources, the impact of open access policies should be regarded from a more holistic point of view and be measured using parameters such as greater awareness of the museums' collections, the circulation and usage of these collections on non-institutional platforms (so-called "earned media")[80], and the long-term effects of the greater awareness of and usage of digitised collections – for instance in terms of the number of visitors attracted to the institutions in question, and the general public's attitude to the value and relevance of cultural heritage and museums.

Parameters such as these are undoubtedly important when assessing the impact of digital presence in the cultural heritage sector. However, museums also still need to generate revenue and attract funding in order to maintain their levels of activity and high quality standards. A major challenge for the cultural heritage sector in the coming years – as open licensing looks poised to become the norm and displace traditional photo sales – will be to develop new, viable business models based on open access to digitised resources. More evidence is needed of which digitally founded business models return real value for cultural heritage institutions as well as for their users. There are ideas in abundance about print on demand, *freemium* and micro-payment models, but as yet there are no ob-

[86] In January 2013, Europeana held a workshop themed The Value of Open Data, presenting a series of case studies, which documented and shared the effects of open data and digitised cultural heritage collections http://opendata-paris.eventbrite.com/ The case studies are published on Europeana's PRO blog.

- Metrics for Measuring the Impact of Cultural Datasets http://pro.europeana.eu/web/guest/pro-blog/-/blogs/case-study%3A-metrics-for-measuring-the-impact-of-cultural-datasets
- Europeana API implementation in Polish Digital Libraries http://pro.europeana.eu/pro-blog/-/blogs/1660413
- Europena & Partners on Pinterest http://pro.europeana.eu/pro-blog/-/blogs/1587205
- Danish Museums on Twitter http://pro.europeana.eu/pro-blog/-/blogs/1640887

Collections Trust is an independent charity based in England working for access to cultural heritage collections and sustainable integration of technology in museums, libraries and archives. http://www.collectionstrust.org.uk/

[87] The term 'impact' in the Balanced Value Impact Model is defined like this: "The measurable outcomes arising from the existence of a digital resource that demonstrate a change in the life or life opportunities of the community for which the resource was intended." (Tanner, 2012)

vious examples of best practices for the museum world to adopt. Even the Rijksmuseum, whose new website is a resounding success, has not yet seen strong sales of 'on demand' products such as postcards, posters, and customised, framed detailed views of artworks based on the images available in the Rijksstudio.[81] Nevertheless, the Rijksmuseum itself regards its open access policy as a success, even if they have not yet cracked the code of developing profitable 'on demand' business models to supplement their free services. Since the launch of the new museum website, which focuses attention on the large body of images with unrestricted access, traffic on the website and the time spent by each visitor has increased greatly. Indeed, how is it even possible to calculate the value of the greater exposure and positive press generated by the museum's decision to open up their collections? How does one establish the monetary value of the greater awareness of the museum's artworks and exhibits among people who would not normally visit the museum, but who come across their collections on blogs, social media, in Wikipedia articles, online videos, and so on? [88]

Not every museum has a collection as famous as that of the Rijksmuseum; a collection capable of generating a great deal of international attention in itself. Even so, any and every cultural heritage institution will have collections which could, by being accessible, potentially become part of the Internet's long tail, finding new, interested users in the most unlikely places and becoming of value to them. Each individual institution must carry out their own analyses of the financial consequences of changing their existing image and data licensing policies before transitioning to open access. However, at this point there are strong indications that only few museums will lose profits on abandoning their conventional business models while they are likely to gain major advantages by providing open access to their digitised collections – specifically in the form of exposure, extra traffic, and new forms of usage that create value for users.

[88] "In the first three months alone, over 32,000 Rijksstudio portfolios were created, more than 112,000 artworks from the Rijksmuseum's collection were downloaded, and 28,000 sets were made. The amount of visitors has grown 34 percent since the launch of the new version of the website. The duration of each visit has increased from an average of 3 minutes to 10 minutes, and iPad users especially spend a significant amount of time exploring the site (19 minutes!). The number of visitors using iPads or other mobile devices has also risen by 90 percent. (…) we also wish to encourage people to publish our content on their own sites and blogs. The more who do so, the greater our outreach. We must earn this attention by offering attractive content that is easy to share. The overall objective is to ensure that Rijksmuseum enjoys an extremely high online profile, which can best be achieved by sharing beyond our own domains." (Gorgels, 2013)

The future is now: Co-ordinated efforts.

When speaking about technological developments many try to gaze into the crystal ball in an attempt at divining what the future holds for the cultural sector. But that's not necessary. The future is now. The Internet and digital media *have* already changed our field of operation. User behaviour *has* changed. Expectations of what cultural institutions have to offer, where they can be approached, and how their content can be used *are* different now compared to the decades that went before. To paraphrase Michael Edson, what we need to do now is not to prepare ourselves for the future, but for the *present*.[82] We must learn to swim in a flood of images.

We have a well-established tradition for responding to political guidelines pertainting to our research, conservation, presentation and education activities. In recent years we are facing increasing requirements concerning digital accessibility, inclusion, and collaboration with other institutions in Denmark and abroad.[83] Grassroots organisations such as Creative Commons, OpenGLAM, and Wikipedia work across professional and national boundaries to establish open standards as the norm for cultural institutions.[84]

It is this kind of culture, one that aims for collaboration and co-ordinated efforts, that SMK has sought to nurture in Denmark in recent years. A wide range of shared challenges await the cultural heritage sector, and we wish to continue to work with other institutions on developing shared and sustainable solutions. Examples of such work include:

- Joint efforts to make Denmark's cultural heritage – and research within the field – available on Wikipedia
- Joint efforts to promote user tagging of Danish cultural heritage collections to enable user-friendly cross-collection search
- Joint development of national technical platforms, for mobile presentation and multimedia productions

- Co-ordinated collection of data on user behaviour across institutional borders
- Co-ordinated negotiations on copyright, and the introduction of open access as the standard policy for digitised material in the public domain[85]

There is plenty of work to do. However, pilot projects such as billeddeling.dk and HintMe where Danish museums build shared technical platforms and introduce open access to their images, suggest that it is possible to establish shared standards for openness when we work together to pave the way for new practices within our sector. The way ahead is to professionalize digital museum practice, co-ordinate efforts among similar institutions, jointly build flexible and sustainable technological solutions, contribute to a digital cultural heritage commons, and work together on incorporating the users' knowledge and creativity to enrich our shared cultural heritage.

Afterword: Sharing is caring

In April 2013, at the conference Open Cultural Heritage Data in the Nordic Countries, Tim Sherratt from The National Library of Australia made a beautiful presentation of the value of open access to cultural heritage data. Sherratt is a trained historian, but for the last twenty years he has taught himself computer programming in order to be able to hack sealed archives and databases and make new and unexpected mashups of their data. In 2013, this independent practice of remixing digitised cultural heritage data in innovative ways has won him the position as head of Trove, the Australian National Library's discovery service.[86]

In his presentation, Sherratt very elegantly demonstrated how the free and unrestricted access to search across vast digitised cultural heritage collections and to build new constellations of data, knowledge and visual materials, makes it possible to challenge the canon of history and retell history in new ways that bring overlooked or repressed aspects out in the open. To me, this endeavour

clearly resonated with the vision behind Art Stories. Sherratt's closing point was that there is power embedded and invested in every data file, in every single record and omission, in all curating and updating; in everything that we, who work in the cultural sector, do in our day-to-day practice. Providing open access to digitised materials is one way of letting power seep out and trickle down, becoming shared with the general public. According to Sherratt this is a way of safeguarding the democratic society with which our institutions are so inextricably linked. Let us open up our collections so they can truly reach out and expand peoples' understanding of the world that we all share, and care about. [89]

[89] One of the speakers at Open Cultural heritage Data in the Nordic Countries, Kristin Lyng from the Meteorological Institute of Norway which has released meteorological data for public use, had a striking way of phrasing the need for opening up data: "Freeing data can be compared to letting your child go out and play in the playground. You're letting go of control, but you know that it's best for your child to be able to play out in the open."

Peter Hansen, Playing Children. Enghave Square, 1907-08. KMS2075. CC BY 3.0 SMK
http://www.smk.dk/en/explore-the-art/highlights/peter-hansen-playing-children-enghave-square/

11. NOTES

1 Sanderhoff, 2007, p. 190-201.

2 This was recently consolidated in the new Museum Act. http://www.kulturstyrelsen.dk/institutioner/museer/ny-museumslov/bekendtgoerelser-for-museumsomraadet/

3 According to Ross Parry, Senior Lecturer in Museum Studies at Leicester University, there has until very recently been a striking lack of methodical stringency within the branch of Museum Studies known as *museum computing* (Parry, 2010, sp. 457). Digital Heritage is a field of study offered as a Masters Degree or Postgraduate course under Museum Studies http://www2.le.ac.uk/departments/museumstudies/postgraduate-study/digital-heritage On Digital Humanities http://en.wikipedia.org/wiki/Digital_humanities

4 Both expressions stem from members of the international advisory board that is associated with SMK digital. "Think Big, Start Small, Move Fast" is a basic idiom in Michael Edson's work, while "Fail Forward" comes from Shelley Bernstein. More on the advisory board p. 41-44.

5 The term "The digital age" leans to Ross Parry's definition and use of the term in *Museums in a Digital Age*, 2010.

6. I'm thinking especially of Edson's, Shirky's and Tapscott & Williams' arguments for harvesting and including the knowledge and competencies of the crowds in the professional work of the culture and knowledge sectors. (Edson, 2011; Shirky, 2010; Tapscott & Williams, 2008)

7 Shirky, 2010, p. 36.

8 Since Wikipedia was founded in 2001 it has generated more than 22 million articles in 285 languages. 77,000 people across the world are active contributors, and hundreds of thousands of volunteers work every day on editing and commenting on their work in order to continually improve the content.
https://en.wikipedia.org/wiki/Wikipedia:About
In March of 2012 the success of Wikipedia prompted the venerable Encyclopaedia Britannica to bring its 244-year long history of printing reference books to an end, adopting an exclusively online publication strategy instead.
http://mediadecoder.blogs.nytimes.com/2012/03/13/after-244-years-encyclopaedia-britannica-stops-the-presses/

9 Shirky, 2010, pp. 20-29

10 Tapscott & Williams, 2008. The term 'wiki' is derived from the Hawaiian word for 'fast' http://en.wikipedia.org/wiki/Wiki.

11 This aggregate of collective knowledge volunteered by non-experts is often divided into two overall categories:
   1. *Crowdsourcing*: when an enterprise or institution outsources a function or task that was previously carried out by inhouse employees

to a non-specific, usually large network of people (as defined by Jeff Howe, Wired Magazine, 2006).

2. *Citizen science*, when independent experts and amateur researchers make volunteer contributions to the work done by an established museum or institution, e.g. in the form of collecting, recording, data processing, research, etc.

(Carletti, Giannachi, Price & McAuley, 2013)
http://mw2013.museumsandtheweb.com/paper/digital-humanities-and-crowdsourcing-an-exploration-4/

A recent addition is *Citizen exploration*, introduced by David Lang in the online magazine Make: as a critital comment to the *Citizen Science* concept: http://makezine.com/2013/11/02/makers-as-explorers-of-the-universe/

12 OpenStreetMap: http://www.openstreetmap.org/
LibraryThing: http://www.librarything.com/
Digitalkoot: http://www.digitalkoot.fi/index_en.html
DR Kunstklub: http://www.dr.dk/Nyheder/Kultur/Kunstklub/kunstklub + forside.htm

13 A commented overview of websites and online services capable of generating large quantities of user-generated data and content can be found on the SI Web and New Media Strategy Wiki http://smithsonian-webstrategy.wikispaces.com/websites + that + get + 1 + million + hours + of + effort

I carried out this research for Michael Edson at the Smithsonian Institution in October 2011. The overview is a living document, and everyone is welcome to add to and edit the list.

14 http://museumtwo.blogspot.dk/

15 Programme for the Danish Ministry of Culture's Digital Think Tank's start-up seminar in Copenhagen, 27 May 2013 http://kum.dk/da/Temaer/Digi-konference/

16 In Danish only. Quote translated for this occassion.

17 Mai Misfeldt, critic, public speaker, MA in Danish and Art History, told me this anecdote and has kindly permitted me to relate it here. See Folkeuniversitetet's fee rates http://www.folkeuniversitetet.dk/default.aspx?pagetype = 6&custID = 14

18 Public Domain refers to a commons of non-copyrighted public property http://en.wikipedia.org/wiki/Public_domain

19 SMK encompasses three collections:

1. The Royal Collection of Paintings and Sculptures containing approx. 10,000 objects
2. The Royal Collection of Graphic Art containing approx. 245,000 works of art on paper
3. The Royal Cast Collection comprising approx. 2,500 plaster casts

Almost 100% of the works featured in the Paintings and Sculptures, and Cast collections have been digitised, i.e. photographed and recorded

in the museum's collection database, but only approximately 15% of the Graphic Art collection. Out of the 32,800 unique works recorded in the collection database a total of 18,426 are in the public domain, corresponding to approximately 56%. If we consider the total number of artworks, including each individual leaf in sketchbooks, etc. (a total of 52,877 works) we find that 30,211 of these are in the public domain, corresponding to approximately 58%. It is estimated that more than 80% of the Graphic Art collection is in the public domain.

Non-copyrighted digital images can be viewed by the general public via the smk.dk website and its "search the collections" functions. The images available here are in low resolution (except for 160 'free images', which I shall return to on p. 86 ff.). The museum's high-resolution image files are stored in an image database allocated to the photo department. The image database can only be accessed by the museum's photographers. Up until 2012 all other employees had to pay a fee when requesting images of the museum's own works, for example in order to post them on smk.dk. The museum's photographs can be obtained by external users for e.g. publications and education purposes against payment of a licensing fee; the exact payment will depend on the purpose and period of use http://www.smk.dk/en/about-smk/sale-of-photos/price-list/. The annual income generated by selling photographic images to external users amounts to approximately 500,000 DKK equivalent to $90,000. For the purpose of comparison, the annual net attribution of state funds to SMK is 79 million DKK equivalent to $14.3 million (2013).

20 Prior to the launch of SMK digital, SMK already had a portfolio of visionary digital projects such as The Virtual Art Museum and the ULK Art Labs (Skovbo, Nygaard & Wilde, 2008). These were pioneering efforts in Denmark as far as digital museum activity and user participation were concerned, but they foundered once the allocated project funds ran out because no funds had been set aside to embed the initiatives in the day-to-day operation of the museum. When SMK digital was launched the organisation still did not fully appreciate what it takes to operate and integrate digital platforms and participatory projects.

MySMK, the users' own universe on the website, was a key project at the time when we applied for funds for SMK digital, reflecting the project's strategic objectives regarding user participation. However, the project was never realised in the form originally intended. Rather, the explosive growth in social media usage from 2008 onwards prompted us to reassign our priorities, opting instead to promote user involvement on platforms such as Facebook and Google+.

21 See archive of contributions from 2007-08 in the right column http://museumtwo.blogspot.dk/

22 The strategy identified the overall values for SMK digital:
   - Vision: SMK digital develops digital museum practice that encourages and satisfies the users' desire for art.
   - Mission: SMK digital makes art accessible, relevant, and inspirational for users through digital media, platforms, and tools that create synergies between the physical and digital museum.
   - Values: Innovation, Accessibility, Sustainability.

   The entire strategy can be found here: http://www.smk.dk/en/about-smk/projekter-paa-smk/smk-digital/
23 CollectionSpace is an open source collection management system developed as an international collaborative project involving the Museum of the Moving Image, The Walker Art Center, University of Cambridge, University of California, Berkeley, and SMK, funded by The Andrew W. Mellon Foundation http://www.collectionspace.org/
24 English version of the original French text http://projectlamar.com/media/A-Thousand-Plateaus.pdf
25 Together with art historian Annette Rosenvold Hvidt, I was project manager for Art Stories http://www.smk.dk/udforsk-kunsten/kunsthistorier/
26 One important aspect concerning the issue of limited access to the collections is the fact that most of the 245,000 works in the museum's Royal Collection of Graphic Art are in practice inaccessible to the public. The vast majority of this collection is kept in storage. For conservation reasons the leaves cannot be exposed to strong light, and when exhibited they can only be on display in the galleries for three months at a time. The general public can, upon prior arrangement, view original works from the Royal Collection of Graphic Art in the museum's study room; in 2012 a total of 240 people availed themselves of this offer. That figure corresponds to just 0.059% of the 409,583 people who visited the museum during the same period, and just 0.035% of the 680,244 visitors to the museum website.
27 Deleuze & Guattari, 2005, p. 5-34.
28 One could mention other examples of the presentation of art on web premises, e.g. The Imaginary Museum http://www.imaginarymuseum.net/ and Google Art Project http://www.googleartproject.com
29 Whether the long tail can be directly transferred to the public sector – conceived as it is as a model of commercial market trends – is a topic for discussion. There are, however, good examples of the principle being implemented on the strategic as well as practical level in the GLAM-sector. See for instance Beale, 2013.
30 For a thorough exposition of Art Stories, its development and test run, see Hvidt & Sanderhoff, 2011.
   http://www.museumsandtheweb.com/mw2011/papers/rhizomatic_art_stories_balancing_between_innov

31 Davis, 2011.

32 Flickr Commons: http://www.flickr.com/commons
The Powerhouse Museum's Tyrell-collection on Flickr:
http://www.flickr.com/photos/powerhouse_museum/sets/72157604376512011/

33 Regin is the central register of works of art owned by Danish state-operated and state-recognised museums. The general public's access to the register is mediated through Kunstindeks Danmark (KID) https://www.kulturarv.dk/kid/. KID includes images of registered works of art, but a copyright agreement with CopyDan BilledKunst means that the images can only be shown in a 72 dpi resolution, i.e. as thumbnails only.

34 The sites billeddeling.dk and KunstMuseerDanmark were both intended as temporary demonstration sites and were taken down when the pilot project had completed its run. A full report on the pilot project "Billeddeling og udvikling af digitale værktøjer" ("Image Sharing and Developing Digital Tools") is available for download here: http://www.formidlingsnet.dk/fri-billeddeling-nu (in Danish)

35 Lessig, 2001, pp. 3-16; Shirky, 2010, pp. 31-56.

36 Balboa Park Online Collaborative:
http://www.bpcp.org/member/balboa-park-online-collaborative
Smithsonian Commons:
http://smithsonian-webstrategy.wikispaces.com/The+Smithsonian+Commons+--+A+Place+to+Begin

37 The concept for the seminar was established in co-operation with colleagues from the Danish GLAM sector during a brainstorming session held in July 2011 at the National Museum of Denmark. At the beginning the seminar was entitled "Kulturarv uden grænser" ("Cultural Heritage Without Borders"), but when we later decided to hold the seminar in English, I suggested "Sharing is Caring" as the overall title.

38 In 2011 the Sharing is Caring seminar was held in Studio 4 in DR Koncerthuset, a space capable of accommodating 150 people. When we staged the event again in 2012 we had to relocate to the Foyer Stage in Koncerthuset to accommodate the total of 220 participants.
http://www.dr.dk/Koncerthuset/om-koncerthuset/en-arkitektonisk-attraktion.htm
http://da.wikipedia.org/wiki/DR_Koncerthuset

39 Two trends were particularly conspicuous in the participants' evaluation of the seminar: One was that the seminar had created fertile ground for greater openness and co-operation within the Danish GLAM sector, and the other was that there was a great need for sharing knowledge and discussing specific lessons learned on how to share digitised content. This comment, made by one of the seminar participants, sums up the two main trends: *"…the focus was much on platforms and less on*

content, much on servers and databases and little about how to give the audience another and a greater experience – but I felt that it is just a start and the positive atmosphere tells me that content and audience are matters to come – I hope to have this seminar each year to create valuable synergies among GLAMs."

SMK, ODM, and DR have subsequently worked to make the seminar a regular annual event, and Sharing is Caring 2014 is currently being planned in collaboration with MMEx (a center for digital museum practice based in Aaarhus) http://mmex.dk/

40 This entire section is endebted to Michael Edson's generous knowledge sharing, sparring and advice in these areas. See e.g. http://smithsonian-webstrategy.wikispaces.com/Public + Domain + and + Image + Sales + References

41 The Google Art Project was first launched to the public on 1 February 2011, at which point it comprised approximately 1,000 works from 17 major museums. An expanded and updated version was launched on 3 April 2012, featuring 151 partners and more than 30,000 works of art. SMK contributed 159 works from the Royal Collection of Paintings and Sculptures, and the Royal Collection of Graphic Art http://www.googleartproject.com/collection/statens-museum-for-kunst/

As of May 2013 the Google Art Project comprises more than 40,000 works of art from 230 collections http://en.wikipedia.org/wiki/Google_Art_Project

42 According to Tanner and Hamma, museums rarely include operating costs when calculating the income/profits generated by photo sales. This is also true of SMK. The museum's annual report only lists the income generated by photo sales without offsetting the administrative and operational costs associated with such sales.

43 Tanner, 2004; Hamma, 2005; Kelly, 2013.

44 This is prompting an increasing number of museums to change their ban on photography, turning the users' photographs into a positive aspect of their marketing. See e.g. Miranda, 2013 http://www.artnews.com/2013/05/13/photography-in-art-museums/

45 From a press release, 25 May 2010: "Europeana Public Domain Charter: libraries, museums and archives support Europe's heritage" http://bit.ly/10LdEH0 Europeana aggregates data and content from more than 2,300 museums, libraries, and archives within the European member states. In September of 2012 Europeana transferred its aggregated data, comprising more than 20 million units, to the public domain by assigning the Creative Commons dedication CC0. See http://bit.ly/SbkazJ and http://creativecommons.org/weblog/entry/34017

46 Read more about the Creative Commons licenses and how to apply them at http://creativecommons.org/licenses/ and in Martin von Haller Grønbæk's article p. 141 ff.

47 The term "open access policy" is widely used in the international GLAM sector, including by the museums featured in this section. SMK has primarily looked to the USA for inspiration, a notable exception being the Rijksmuseum in Amsterdam. The reason is simple: as yet only relatively few art collections have adopted open licences on a grand scale, and the most far-reaching cases can be found in the US. If we take a wider view of the GLAM scene we find many more examples of institutions that employ open licences. The global non-profit grassroots movement Open Knowledge Foundation http://okfn.org/ is compiling a list of "OpenGLAM" institutions (i.e. institutions that apply open licences to their digital content), and SMK is featured on this list http://openglam.org/open-collections/

48 See e.g.
http://www.youtube.com/watch?feature = player_embedded&v = 5MzgijfLV-E#!
and Segal, 2013 http://www.nytimes.com/2013/05/29/arts/design/museums-mull-public-use-of-online-art-images.html?smid = tw-share&_r = 3&

49 http://britishart.yale.edu/

50 With the relaunch of their website in October 2011, the Metropolitan Museum also introduced free access to download of almost 200,000 high-resolution images, albeit for non-commercial personal use only. On paper it would appear that The Met has a more restrictive image licensing policy than NGA, but in practise it is as easy to download their high-resolution images, if not easier. A clearly visible download button allows users to download the image file with a single click. It is, however, difficult to find the museum's terms of use; these are hidden deep within the website's information architecture, far away from the pages where the images are available for download. http://www.metmuseum.org/information/terms-and-conditions
In practice this makes it very difficult for users to act legally correct. This example accentuates the importance of clearly indicating the nature of the licences applied to digital images – partly to ensure that the rules are adhered to, and partly to avoid implicating the users in inadvertent rule-breaking.

51 See Martin von Haller, Grønbæk's article p. 141 ff.

52 Alastair Dunning from The European Library elaborates on this in a blog entry about the dangers of license proliferation: http://available-online.wordpress.com/2013/06/05/europeana-and-harmony-avoiding-the-dangers-of-licence-proliferation/

53 A brief explanatory note may be in order: SMK has applied the CC BY licence to high-resolution JPG files of images to which the museum holds all photographic rights. The licence has nothing to do with the original works – they are in the public domain – and does not extend

to photographic representations of the artworks taken by others. During our decision-making process SMK received advice from lawyer Martin von Haller Grønbæk, co-founder of Creative Commons Danmark, and Lars Lundqvist from Riksantikvarieämbetet in Sweden, which has used Creative Commons licences for Swedish collections since 2008. They have both contributed essays to this anthology.

54 Social media are usually commercial companies which is why images with non-commercial restrictions cannot be shared on those. The rules of Wikipedia are based on the notion that all material must be free to reuse and edit by anyone, also for commercial purposes, as long as the rightsholder is attributed. For an overview of which licences are compatible with Wikipedia, see: http://en.wikipedia.org/wiki/Wikipedia:Manual_of_Style/Images

55 Introduction to free download of SMK images
http://www.smk.dk/udforsk-kunsten/samlingerne/vaerker-til-fri-download/
Introduction to the CC BY licence
http://www.smk.dk/copyright/creative-commons/
A few weeks after the original launch we split the single zip file into three separate files as numerous users experienced difficulties in downloading such a large quantity of data at once.
At the time when SMK applied open licences to a selection of publicly accessible images the museum also decided to abolish its in-house fee scheme for the use of photos (see note 19). As of 1 January 2012 the various museum departments no longer pay the SMK photo department for using images of the museum's own artworks, e.g. on the museum website.

56 Statistics from Google Analytics (10 April 2013)

57 Wikipedia SMK project
http://da.wikipedia.org/wiki/Wikipedia:WikiProjekt_Maleri/158_highlights

58 Statistics from GLAMorous http://toolserver.org/~magnus/ts2/glamorous/ (13 June 2013)

59 In 2011 the total revenue generated by external photo sales was 404,477 DKK ($74,398); in 2012 the corresponding figure was 464,496 DKK ($85,437). This tendency is consistent with the experience of other museums that have implemented open access policies for their digitised collections (Kelly, 2013).

60 The Google Art Project offers its partners the opportunity to have one work in their collection recorded by means of specialist photographic equipment that makes it possible to create extremely large images with a resolution of several billion pixels.

61 People from 20 nations across the world voted and commented on the candidates: India, Russia, China, Colombia, Libya, Spain, Mexico, Tur-

key, South Africa, the Philippines, Indonesia, United Kingdom, Germany, Nigeria, USA, New Zealand, Finland, Sweden, France, and Denmark. View the 10 candidates here:
https://plus.google.com/u/0/b/105034210144513295597/photos/ + StatensMuseumforKunst/albums/5812929202671334753
Read about the winner here:
http://www.smk.dk/en/visit-the-museum/news/artikel/and-the-winner-is-1/

62 See an example from 21 November 2012, where two young men from South Africa and the Philippines discuss Peter Paul Rubens' painting The Judgement of Solomon.
https://plus.google.com/u/0/b/105034210144513295597/photos/ + StatensMuseumforKunst/albums/5812929202671334753/5812929227295374690?pid = 5812929227295374690&oid = 105034210144513295597
Who would have guessed that the collections of the Danish national gallery have potential users in the Philippines or in South Africa? Young people, so-called "digital natives", with the knowledge and tools to navigate in a global visual culture. The vote on SMK's gigapixel photo gave us a bit of insight into the effect of "the long tail" (p. 48 ff.). Our collections can become relevant and meaningful to entirely new user groups, when we put them where the users are and encourage dialogue. This tiny experiment showed us, that the use of open licenses and a presence

63 The problematic implications associated with entering the Google Art Project were discussed at Museums Computer Network in 2012: http://www.mcn.edu/google-trial-google-art-project-goods-mcn2012goog

64 See http://hintme.dk. The partner museums are Faaborg Museum, The Hirschsprung Collection, KØS - museum for art in public spaces, Vejle Museum of Art, Ribe Kunstmuseum, J. F. Willumsens Museum, Sorø Kunstmuseum, Thorvaldsens Museum, and SMK.

65 The principles behind HintMe are largely based on lessons learned during a research trip to the US in October 2011. My hosts included the Smithsonian Institution and National Gallery of Art in Washington D.C., MoMA and Metropolitan Museum of Art in New York, and the Art Institute in Chicago. The trip was funded by the Danish Agency for Culture. A detailed report describing five main trends for digital museum practice and a detailed overview of host institutions is available for download here: http://www.formidlingsnet.dk/report-about-us-2011-research-visit
In addition to this HintMe is inspired by Clay Shirky's recommendations on how to start up social media platforms (based on the chapter "Improving the Odds" in *Cognitive Surplus*)
- Start small
- Ask your users
- Adapt

- Experiment
- Seize the opportunities presented by new technologies and user behaviours

66 You can read more about the reasoning behind our choice of Twitter as a platform and the concept behind HintMe in a detailed case study on Europeana's PRO blog (Bates, 2013)
http://pro.europeana.eu/pro-blog/-/blogs/1640887
All references to and presentations of the HintMe project are collected and regularly updated on my tumblr blog Museum Misc http://msanderhoff.tumblr.com/

67 The 1% rule, also known as the 90-9-1 principle, is a rule of thumb that divides Internet users into content creators (1%), content contributors (9%), and lurkers (90%). http://en.wikipedia.org/wiki/1%25_rule_(Internet_culture)

68 The consultancy agency Bysted was behind the first analysis of Twitter usage in Denmark, published February 2013 http://bysted.dk/globalsite.aspx?ObjectId=f9db99be-5d76-4bd8-8c3b-488a740c2424
The study shows that slightly more than 92,000 Danes had a Twitter profile, and slightly fewer than 30,000 used it actively. Figures from May 2013 show that since then, the number of Danish Twitter users has risen to 150,000, of which 60,000 are active users. This corresponds to a 50% growth rate in just three months.
http://blog.overskrift.dk/2013/05/13/tal-pa-anvendelse-af-sociale-medier-i-danmark/ (the figures in this study differ somewhat from those in the Bysted survey, but nevertheless show the same overall trend).

69 HintMe was presented at Europeana's 2nd Strategic Briefing for the Cultural Commons in Cyprus, October 2012, at the Europeana workshop "The Value of Open" in Paris in January of 2013, and is described in detail in a case study on Europeana's PRO blog, April 2013 (Bates, 2013).

70 For a Danish introduction to Cool Constructions (Byens Hegn), see http://www.m.dk/#!/om+metroen/metrobyggeriet/byens+hegn

71 Simon, 2010, p. 16-17.

72 The ULK Art Labs were originally launched as an online community and physical forum for young people in 2007, but soon foundered due to lack of funds (see note 20). Since then the online community has been taken down, and the ULK Art Labs have been reinvented and reorganised, arising in a new format http://www.ulk.dk/. In recent years, the ULK Art Labs have staged a number of high-profile projects at Denmark's leading music festival, the Roskilde Festival, where festival goers have been invited to take part in creative schemes aimed at creating benefits for all – one example is the construction of a creative chill-out lounge where festival goers could kick back and relax in the midst of the hubbub of festival life. New volunteer art pilots are

added regularly and meet every week at SMK, where they take part in developing and carrying out specific projects.

73 Which the former U.L.K. Art Labs became a symptom of, as mentioned earlier. See also note 20.

74 Quoted from Alexanderson's workshop "What the school needs" at Open Cultural Heritage Data in the Nordic Countries, April 2013. http://digisam.se/index.php/en/program

75 The need for measuring the effect of museum computing and statistical analyses of the field (web metrics) is a central theme at leading international digital museum conferences these years, e.g. Museums and the Web, Museum Computer Network, and MuseumNext.

76 The digital infrastructure we are currently planning will include a Digital Asset Management system – a multimedia database that will be integrated with the museum's collection database – as well as embedding machine-readable data in image files to ensure easy and correct credits, tagging images with keywords in order to optimise searches, developing a user-friendly search function for the collections, developing an interface that allows for free downloads of high-resolution image files from the multimedia database, and an open API that provides access to downloading the museum's complete non-copyrighted data and image collections.

77 SMK's Conservation Department is a trailblazer within the field: its employees regularly blog about their ongoing projects, post video footage demonstrating their work, and are very active on social media, discussing various issues and exchanging know-how and observations with interested parties throughout the world. http://www.smk.dk/en/explore-the-art/visit-the-conservator/

78 The international advisors at SMK's internal workshops were Shelley Bernstein, Chief of Technology, Brooklyn Museum, Lizzy Jongma, Data Manager, Rijksmuseum, James Davis, Program Manager with the Google Art Project and former project manager of Tate Art & Artists, Jesse Ringham, Digital Communications Manager, Tate, and Allegra Burnette, Director of Digital Media, MoMA. Concurrently with the internal workshops SMK also staged a number of public lectures where representatives from the Danish cultural heritage sector could take part and learn from the know-how accumulated by our colleagues from abroad.

79 *Agile development* is a designation used for a form of project management where you work iteratively and incrementally in brief, self-contained sequences or *sprints*, each of them leading to the completion of specific deliverables before the overall project is ultimately concluded. This makes it possible to take into account any changes in conditions and requirements arising over the course of the project, adapting the process and results dynamically during its progress http://

en.wikipedia.org/wiki/Agile_software_development. This form of flexible project management is currently becoming increasingly popular within the cultural heritage sector and has been used for the development of e.g. Tate's Art & Artists http://www.tate.org.uk/art and the Rijksmuseum's new website https://www.rijksmuseum.nl/ (Davis, 2011; Gorgels, 2013).

80 Gorgels, 2013.

81 In Gorgels' own words, "The only aspect that has not been in line with expectations is the number of orders for products. Perhaps users find the ordering process too complex, or are not yet satisfied with their own creative efforts." (Gorgels, 2013)

82 Edson 2011-12.

83 I am referring to e.g. the guidelines pertaining to the funding allocated for presentation/education and digitisation by the Danish Agency for Culture and the Danish Ministry of Culture, as well as to the increasing demands requiring Danish culture institutions to supply data and digitised collections to Europeana.

84 For example, the Wikipedia project GLAM-Wiki supports cultural institutions that wish to enrich Wikipedia with their knowledge and materials. GLAM-Wiki offers to facilitate such work on the basis of the principle that this will benefit everyone: the GLAM institutions, Wikipedia, and – very importantly – the *users*. See http://outreach.wikimedia.org/wiki/GLAM

85 Other countries provide excellent examples that might usefully be emulated, e.g. the BBC-led initiative Your Paintings, which facilitates user tagging of works in national collections http://www.bbc.co.uk/arts/yourpaintings/; TAP, a free open source tool for developing guided tours at museums, developed by the Indianapolis Museum of ART http://www.imamuseum.org/blog/2010/04/05/5-reasons-why-tap-should-be-your-museums-next-mobile-platform/; and not least Europeana's data exchange agreement, which transfers all aggregated cultural heritage data to the public domain. http://pro.europeana.eu/web/guest/data-exchange-agreement

86 Trove http://trove.nla.gov.au/?q=
An introduction to Tim Sherratt's work http://www.digisam.se/index.php/en/speakers
Sherratt's talk is available on video via this link http://digisam.se/index.php/konferensen

All URLs were consulted 10 June 2013

12. LITERATURE AND SOURCES

Books

Lewis Mumford, *Technics and Civilization*, Harcourt, Brace & Company, Inc. 1934

Gilles Deleuze & Felix Guattari, *Tusind plateauer. Kapitalisme og skizofreni*, Det Kongelige Danske Kunstakademis Billedskoler (1980) 2005

Lawrence Lessig, *The Future of Ideas. The Fate of the Commons in a Connected World*, Random House 2001 http://www.the-future-of-ideas.com/download/lessig_FOI.pdf

Merete Sanderhoff, *Sorte billeder. Kunst og kanon*, Forlaget politisk revy 2007

Don Tapscott & Anthony Williams, *Wikinomics. How Mass Collaboration Changes Everything*, The Penguin Group 2008

Chris Anderson, *The Longer Long Tail. How Endless Choice is Creating Unlimited Demand* (updated and expanded version), Hyperion Books (2006) 2009

Clay Shirky, *Cognitive Surplus. Creativity and Generosity in a Connected Age*, The Penguin Group 2010

Nina Simon, *The Participatory Museum*, Santa Cruz, Museum 2.0 2010 http://www.participatorymuseum.org/

Peter Leth, *Creative Commons for alle*, Lær IT 2011 http://www.laerit.dk/cc/

Anthologies

Charlotte Hess & Elinor Ostrom (eds.), *Understanding Knowledge as a Commons. From Theory to Practice*, The MIT Press 2007

Simon J. Knell, Suzanne MacLeod & Sheila Watson (eds.), *Museum Revolutions. How museums change and are changed*, Routledge 2007

Mette Elting & Sverri Hammer (eds.), *Ledelse og organisation. Forandringer og udfordringer*, Forlaget Samfundslitteratur 2009

Ross Parry (ed.), *Museums in a Digital Age*, Leicester Readers in Museum Studies, Routledge 2010

Nancy Proctor (ed.), *Mobile Apps for Museums. The AAM Guide to Planning and Strategy*, The AAM Press 2011

Other print publications

Tobias Golodnoff (ed.), *Dansk Kulturarv. Fælles arv til fælles brug*, DR 2007

Shelley Bernstein, *Click! A Crowd-Curated Exhibition*, Brooklyn Museum 2008

Antony Griffiths, "Collections Online: The Experience of the British Museum", in Jane Turner (ed.), Master Drawings vol. 48, No. 3, Autumn 2010

Merete Sanderhoff, "Det er *vores* kunst. Brug den", Skolebiblioteket, vol. 41, no. 4, 2013

Merete Sanderhoff, "Open Images. Risk or opportunity for art collections in the digital age?", in Britta Tøndborg (ed.), Nordic Museology 2013, 2.

Online reports

Simon Tanner (King's Digital Consultancy Services), *Reproduction charging models & rights policy for digital images in American art museums*, A Mellon Foundation study 2004
http://www.kdcs.kcl.ac.uk/fileadmin/documents/USMuseum_SimonTanner.pdf

SMK Årsrapport /Annual Report 2008
http://www.smk.dk/fileadmin/user_upload/Billeder/om-museet/organisation/aarsrapporter/aarsrapport2008.pdf

Merete Sanderhoff, *Billeddeling og udvikling af digitale værktøjer*, Kulturstyrelsen 2009
http://www.formidlingsnet.dk/fri-billeddeling-nu

Harry Verwayen, Martijn Arnoldus, Peter B. Kaufmann, *The Problem of the Yellow Milkmaid. A Business Model Perspective on Open Metadata*, Europeana White Paper No. 2, 2011 (CC BY-SA)
http://pro.europeana.eu/documents/858566/2cbf1f78-e036-4088-af25-94684ff90dc5

L. Johnson, S. Adams Becker, H. Witchey, M. Cummins, V. Estrada, A. Freeman, and H. Ludgate, *The NMC Horizon Report: 2012 Museum Edition*, The New Media Consortium 2012
http://www.nmc.org/pdf/2012-horizon-report-museum.pdf

Merete Sanderhoff, *Image sharing and mobile strategies. Research visit at US cultural heritage institutions*, Kulturstyrelsen 2012
http://www.formidlingsnet.dk/report-about-us-2011-research-visit

Simon Tanner, *Measuring the Impact of Digital Resources: The Balanced Value Impact Model*, Department of Digital Humanities, King's College London 2012 (CC BY-NC-SA 2.0)
http://www.kdcs.kcl.ac.uk/fileadmin/documents/pubs/BalancedValueImpactModel_SimonTanner_October2012.pdf

Kristin Kelly, *Images of Works of Art in Museum Collections: The Experience of Open Access. A Study of Eleven Museums*, The Andrew W. Mellon Foundation 2013
http://msc.mellon.org/research-reports/Open%20Access%20Report%2004%2025%2013-Final.pdf/view

Online articles

Chuen-Ferng Koh, *Internet: Towards a Holistic Ontology*, Murdoch University, Perth, 1997 http://wwwmcc.murdoch.edu.au/ReadingRoom/VID/jfk/thesis/ch1.htm

Ken Hamma, "Public Domain Art in an Age of Easier Mechanical Reproducibility", D-Lib Magazine vol. 11, no. 11, 2005
http://www.dlib.org/dlib/november05/hamma/11hamma.html

Jeff Ubois & Peter Kaufmann, "Good Terms – Improving Commercial-Noncommercial Partnerships for Mass Digitization", D-Lib Magazine, Nov.- Dec. 2007
http://www.dlib.org/dlib/november07/kaufman/11kaufman.html

Anne Tessing Skovbo Nielsen, Tine Nygaard & Ethan Wilde, "Teens Connect to Art and Each Other at Young Peoples' Laboratories for Art", Museums and the Web 2008 (CC BY-NC-ND)
http://www.museumsandtheweb.com/mw2008/papers/nielsen/nielsen.html

Paula Bray, "Open Licensing and the Future for Collections", Museums and the Web 2009
http://www.museumsandtheweb.com/mw2009/papers/bray/bray.html

Michael Edson & Rich Cherry, "Museum Commons. Tragedy or Enlightened Self-Interest?", Museums and the Web 2010 (CC BY-NC-ND)
http://www.archimuse.com/mw2010/papers/edson-cherry/edson-cherry.html

James Davis, "Art & Artists", Museums and the Web 2011
http://www.museumsandtheweb.com/mw2011/papers/art_artists

Annette Rosenvold Hvidt & Merete Sanderhoff, "Rhizomatic Art Stories. Balancing Between Innovation and Usability", Museums and the Web 2011
http://www.museumsandtheweb.com/mw2011/papers/rhizomatic_art_stories_balancing_between_innov

Peter Gorgels, "Rijksstudio: Make your own masterpiece!" Museums and the Web 2013 http://mw2013.museumsandtheweb.com/paper/rijksstudio-make-your-own-masterpiece/

Laura Carletti, Gabriela Giannachi, Dominic Price & Derek McAuley, "Digital humanities and crowdsourcing. An exploration", Museums and the Web 2013
http://mw2013.museumsandtheweb.com/paper/digital-humanities-and-crowdsourcing-an-exploration-4/

Jacob Goldstein, "The Single Most Valuable Document In The History Of The World Wide Web", Planet Money, 1 May 2013
http://www.npr.org/blogs/money/2013/05/01/180255276/the-single-most-valuable-document-in-the-history-of-the-world-wide-web

Carolina A. Miranda, "Why Can't We Take Pictures in Art Museums?", ARTnews, 13 May 2013
http://www.artnews.com/2013/05/13/photography-in-art-museums/

Nina Segal, “Masterworks for One and All”, New York Times, 28 May 2013 http://www.nytimes.com/2013/05/29/arts/design/museums-mull-public-use-of-online-art-images.html?smid = tw-share&_r = 3&

Online videos

“Digitaliseringen er en positiv udfordring”, interview (in Danish) with Merete Sanderhoff at HAVE Backstage, Feb. 2012 http://vimeo.com/34958955

Interview with Lizzy Jongma, Rijksmuseum, conducted by Christoph Müller Girod (undated) http://vimeo.com/41236531

Rijksstudio Digital Innovation Think Tank, 8 November 2012 http://www.youtube.com/watch?feature = player_embedded&v = 5MzgijfLV-E#!

Digital Humanities panel med Michael Edson, William Noel, Christiana DePaolo and Neal Stimler, “The Commons and Digital Humanities in Museums”, 28 November 2012, Graduate Center, CUNY http://www.youtube.com/watch?v = WiyRO7t8EFE

MoMA Digital Strategy, interview with Allegra Burnette, Creative Director of Digital Media, conducted by Rui Guerra, 3 March 2013 http://www.youtube.com/watch?v = n5GWxhwOTyc

Larry Friedlander, “When the Rare Becomes Commonplace. Challenges for Museums in a Digital Age”, opening address, Museums and the Web, April 2013 http://mw2013.museumsandtheweb.com/larry-friedlanders-opening-plenary/

Blog entries

“The Wide Open Future of the Art Museum”, interview with William Noel, TED Blog, 29 May 2012 http://blog.ted.com/2012/05/29/the-wide-open-future-of-the-art-museum-qa-with-william-noel/

Nick Poole, “Culture must always be a Commons”, Collections Trust, Nov. 2012 http://www.collectionslink.org.uk/blog/1536-culture-must-always-be-a-commons

Sarah Stierch, “Keep it free: National Gallery of Art (US) creates open access policy”, interview with Alan Newman, NGA, OpenGLAM, 17 January 2013 http://openglam.org/2013/01/17/keep-it-free-national-gallery-of-art-us-creates-open-access-policy/

Mia Ridge, “An (even briefer) history of open cultural data”, Open Objects, 16 April 2013 http://openobjects.blogspot.nl/2013/04/an-even-briefer-history-of-open.html

Jonathan Gray, “What We Hope the Digital Public Library of America Will Become”, Open Knowledge Foundation, 17 April 2013 http://blog.okfn.org/2013/04/17/what-we-hope-the-digital-public-library-of-america-will-become/

Joris Pekel, "Glam-Wiki London 2013 Highlights", OpenGLAM blog, 17 April 2013 http://openglam.org/2013/04/17/glam-wiki-london-2013-highlights/

Anne Skovbo, "Foran det digitale spejl", SMK blog, 22 April 2013 http://www.smk.dk/udforsk-kunsten/smk-blogger/artikel/foran-det-digitale-spejl/

Alastair Dunning, "Europeana and Harmony: Avoiding the Dangers of Licence Proliferation", Available Online, 5 June 2013 http://availableonline.wordpress.com/2013/06/05/europeana-and-harmony-avoiding-the-dangers-of-licence-proliferation/

Nicole Beale, "Social Media Strategies – Ethnography and Marketing – Part 2", The Cultural Heritage Web, 16 August 2013 http://theculturalheritageweb.wordpress.com/tag/the-long-tail/

Wikis, presentations, case studies, online resources, etc.

SMK Digital strategy, 2008 http://www.smk.dk/om-museet/projekter-paa-smk/smk-digital/

Michael Edson (ed.), *Smithsonian Web and New Media Strategy*, 2008 http://smithsonian-webstrategy.wikispaces.com/Strategy + -- + Table + of + Contents

Michael Edson, "Imagining a Smithsonian Commons", Computers in Libraries 2009 http://www.slideshare.net/edsonm/cil-2009-michael-edson-text-version

Michael Edson, "Makers and the Commons", Europeana's European Cultural Commons conference 2011 http://www.slideshare.net/edsonm/makers-and-the-commons

Derek Briggs, Amy Meyers, Jock Reynolds, Frank Turner & Meg Bellinger, "Memo on open access to digital representations of works in the public domain from museum, library, and archive collections at Yale University", 5 May 2011 http://ydc2.yale.edu/sites/default/files/OpenAccessLAMSFinal.pdf

Merete Sanderhoff, "Sites that tick – crowdsourcing successes", research on SI Web and New Media Strategy Wiki, October 2011 http://smithsonian-webstrategy.wikispaces.com/websites + that + get + 1 + million + hours + of + effort

Michael Edson, "Let Us Go Boldly Into the Present", J. Boye, Computers in Libraries, Sharing is Caring, and others 2011-12 http://www.slideshare.net/edsonm/michael-edson-let-us-go-boldly-into-the-future

Merete Sanderhoff, "Highlights from SMK, the National Gallery of Denmark", case study on the Creative Commons wiki, April 2012 http://wiki.creativecommons.org/Case_Studies/Highlights_from_SMK,_The_National_Gallery_of_Denmark

Robin Dowden and Nate Solas, "Rethinking the Museum Website, MuseumNext 2012 http://www.slideshare.net/MuseumNext/walker-13384889

Lizzy Jongma & Inge Giesbers, *The Rijksmuseum Hacking Experience*, Open Data Workshop, MuseumNext 2012 http://www.slideshare.net/CollectieInformatie/presentation-museum-next

Michael Edson et al., "Google on Trial: Is the Google Art Project Good?", Museum Computer Network 2012 http://www.mcn.edu/google-trial-google-art-project-goods-mcn2012goog

Neal Bates, *Case Study: Danish Museums on Twitter*, Europeana PRO blog, 11 April 2013 http://pro.europeana.eu/pro-blog/-/blogs/1640887

Beat Eastermann, "To what extent are GLAMs ready for Open Content and Crowdsourcing? Results of a Pilot Survey from Switzerland", GLAM-wiki London, 12 April 2013 http://www.slideshare.net/beatestermann/swissglamsurveypresentation20130412

Smithsonian Institution Web and New Media Wiki http://smithsonian-webstrategy.wikispaces.com/

Michael Edson, "Public Domain and Image Sales References", Smithsonian Wiki http://smithsonian-webstrategy.wikispaces.com/Public + Domain + and + Image + Sales + References

The Europeana Public Domain Charter http://www.publicdomaincharter.eu/

Sharing is Caring blog, Peter Leth http://sharecare.skoleblogs.dk/

Open Collections, OpenGLAM.org http://openglam.org/open-collections/

The OpenGLAM principles, OpenGLAM.org http://openglam.org/principles/

Museum 2.0, Nina Simon http://museumtwo.blogspot.dk/

All URLs were consulted 10 June 2013.

Building a commons for digital cultural heritage

JILL COUSINS, EXECUTIVE DIRECTOR,
THE EUROPEANA FOUNDATION

The vision behind Europeana is vast in scope: to create a common access point to Europe's digitised cultural heritage, and make it public property for all internet users. In 2012, an important step was taken as the complete aggregated dataset was handed over to the Public Domain, enabling everyone to freely re-use the rich data about history, art, literature, music, film, design, and fashion, generated by Europe's cultural heritage institutions. In this article, Jill discusses Europeana's next step: to turn the digitised cultural heritage of Europe into a 'commons' of high quality digitised works, as well as tools and services which everyone can freely use, and for which we are all responsible.

Europeana brings together the digitised content of Europe's galleries, libraries, museums, archives and audiovisual collections. Currently, Europeana gives access to 30 million books, films, paintings, museum objects and archival documents from 2,300 content providers, brought together by aggregation initiatives and multi-partner projects. Europeana has at its heart the goal of creating new ways for people to engage with their cultural history, whether it's for work, learning or pleasure. Making cultural heritage openly accessible in a digital way, and promoting the exchange of ideas and information, helps us all to understand our cultural diversity better and contributes to a thriving knowledge economy.

The Europeana vision is gigantic in scope and is already achieving notable successes, like the release of Europeana metadata under a CC0

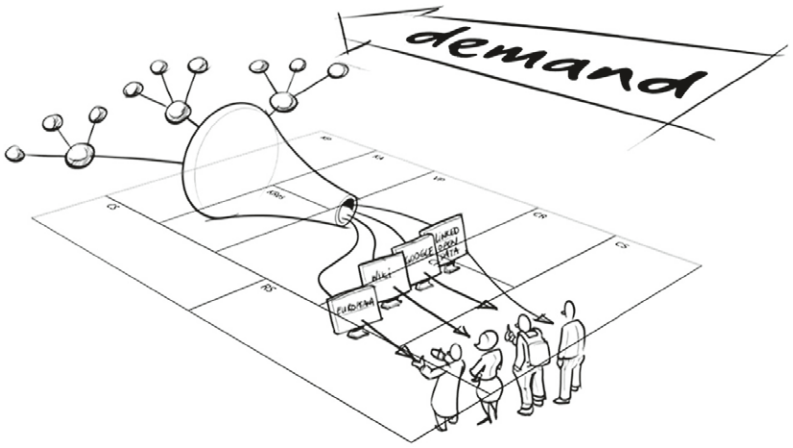
waiver,[1] making it re-usable both commercially and non-commercially. To fully deliver its potential, a real multiplier effect is required – what is currently a network needs to become a movement.

The Europeana Network has over 900 members representing the cultural heritage and digital technology sectors, and we have partners and content providers from every EU member state. All of these people work with us, with each other and with organisations outside of our sphere, and all are developing Europeana for the benefit of the European public and beyond. We therefore have to ask the question – how can we best manage this process and the resource we are creating?

To date, we have been driven by the need to aggregate – we needed to get content in. Now, we are looking much more at distribution – getting content out to end-users and to re-users such as Wikipedians, software and app developers, schools and creative industries. The release of metadata under a CC0 waiver frees us up to make data available according to 'Linked Open Data' principles.[2] This means that anyone can integrate Europeana metadata and searches into their websites and apps, it allows our data to be integrated and re-used on other sites such as HistoryPin and Wikipedia, and it opens the door for commercial re-use. Whilst this is all great news, the original Europeana model is one-directional, pushing information towards users, and doesn't fit with this new vision of extended distribution. There is not enough of a sense of shared ownership and cooperation – users themselves do not play an active role in the governance structure. [1]

A cultural commons for Europe

In March 2012, we asked ourselves whether Europeana could be organised with a 'commons' approach, creating a true 'Cultural Commons' for Europe, with all content providers, Europeana Network members, and end-users acting as a single community that is mutually reinforcing and constantly finding innovative ways of engaging new user groups with content. By structuring Europeana as a cultural



[1] The 'push' Europeana governance model.

commons, could we achieve our shared goal of connecting Europe's public to their culture?

To consider this, we first need to understand the principles of a commons structure. Think of a village green or fresh water – things we all enjoy, that belong to no-one, or rather, that belong to everyone, and for which we all share responsibility. We do not dig up the village green, nor do we deposit our waste into the nearest reservoir. Why not? Because we know that by looking after a shared resource for others, we maintain its use for ourselves.

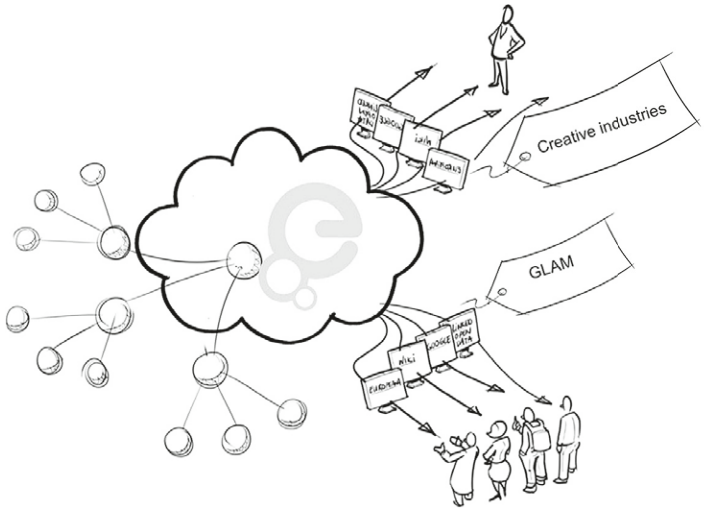
According to Charlotte Hess, a commons is "a general concept that refers to a resource shared by a group of people" (Hess, 2007) and it provides "a new way of looking at what is shared or should be shared in the world around us. It focuses on collective action and the importance of understanding who shares what, how we share it and how we sustain commons for future generations." (Hess, 2008)

Natural resources are obvious candidates for a commons governance structure, but others have also emerged in more varied fields, e.g. research commons like the ArXiv repository for sharing academic papers[3], or education commons at the University of Manchester[4] and University of Illinois.[5] Other cultural commons include Citilab, a collaborative digital culture initiative in Barcelona, and the Digital Public Space – "an online space in which much of the UK's publicly-held cultural and heritage media assets and data could be found." (Berger, 2011)

If we are to think of digital cultural heritage as commons material, we must see digital representations of artwork, writing, music and film, and the metadata behind them, as shared public resources that we all have an interest in both accessing and maintaining. But looking at it in this way leads to some difficult questions:

"If consumers have the right to access and participate in their culture, how can we deliver a cultural offer that is best-suited to the needs and expectations of an always-connected, always-on, multi-platform digital world? What would this mean for our institutions and their positioning in the cultural landscape (…)? How can digitisation add further value to the traditional activities of acquiring, preserving and serving content to the end-user? Is there an opportunity for new types of relationship with private enterprises in the cultural sector, supported by some form of open content (…)? How would such products and services relate to the commercial offer of publishers and other content companies?"[6]

Answering these questions will take time, but the anticipated reward motivates us to aim high – if we can create a European cultural commons, we can make our content available to the creative industries, to those developers and innovators who have skills that we do not. As Michael Edson puts it, the idea is that "when creators are allowed free and unrestricted access to the work of others, through the public domain, fair use, a commons, or other means, innovation flourishes" (Edson,



[2] A distribution-based Europeana governance model.

2009). The publications, apps, websites and games developed will be brand-new uses of cultural heritage content, which can be fed back to the cultural heritage domains (galleries, libraries, archives, museums), bringing in new users and generating jobs and economic growth from which we all benefit. [2]

We have already made significant progress. A 'Task Force' has investigated the notion of a cultural commons and discussed what it might look like. Through a series of workshops with European policy-makers from Ministries of Culture and Education and the Member States Expert Group of DG Connect[7], and several meetings of the Europeana Network, the Task Force arrived at five principles for the governance of a European Cultural Commons.

Five principles for a European Cultural Commons

1. *Mutuality:* Create a community based on the ideas of achieving mutual benefit, acting in good faith and presuming it on behalf of others.
2. *Access:* Provide high-quality re-usable content, tools and services to enable creativity and innovation.
3. *Attribution:* Commit to respecting intellectual property rights/copyrights through acknowledgement and attribution.
4. *Consistency:* Build on the existing values and principles of our sector.
5. *Engagement:* Members of the community should commit to use the commons proactively and to contribute to it.

We view a commons as much more than just content. It's about how all involved can act together, how we agree on protocols, share technology, and how we work together on things like rights labelling. What content we can make available depends on the circumstances our commons creates. Three commons pilots will test these principles, finding out what works, what doesn't and what needs negotiating. The emphasis in a commons is on collaboration and community, and now we must practise what we preach.

The pilots will report their experiences to the Cultural Commons Task Force, who will share findings and discussions with the Europeana Network as a whole.

Europeana Cloud

The first pilot is an infrastructure commons and is part of Europeana Cloud, a three-year project that kicked-off in March 2013. Europeana Cloud will ingest 2.4m metadata records and 5m digitised objects into Europeana, placing the content and all metadata in a cloud-based infrastructure for better access and sustainability. It explores the potential of cloud computing technologies, putting in place an infrastructure for the use of Europeana and anyone else wishing to access the content and

tools that it stores. The project will apply the principles of a cultural commons to a cloud-based technology infrastructure, focusing on the governance, legal and economic aspects that will inevitably confront us. This pilot will put the building blocks in place for the establishment of an infrastructure commons for the benefit of the whole Europeana ecosystem. By applying the principles, we hope to work out how to overcome some of the difficulties faced by cultural heritage institutions in the sharing of content and tools.

Europeana Research

Also within Europeana Cloud is our second pilot – a research commons. Europeana Research is a service for researchers in the humanities and social sciences to make use of data, content and tools and to contribute new research to the platform. The aim is to apply the commons principles to a service for a specific audience – researchers. The idea is that many content providers who are worried about commercial use of their content would be happy to consider research use. The pilot will give us a better understanding of the issues facing content providers when making their content freely available to a defined set of users and might increase the number of people and organisations who contribute content. We will explore how to release content to a research audience, e.g. whole corpuses of texts that couldn't previously be made freely available. This will lay the foundations for the construction of a shared research environment to support the European Research Area,[8] based on commons principles.

Europeana Creative

The final pilot is a cultural tourism commons, and is part of the Europeana Creative project, which began in February 2013. Cultural heritage organisations and developers will work with tourism providers and commercial companies to look at re-using content so that tourists can find

out about places, monuments and people. This potentially enhances the contributing institutions' public presence and relevance on the internet. For this pilot, only providers comfortable with working in this way will be approached.

As Europeana Cloud and Europeana Creative have both started, we are on the verge of turning what has been, up to now, a purely theoretical discussion into a practical application of commons thinking. We will undoubtedly be challenged and discover problems as yet unknown, but we will learn and adapt, keeping firmly in mind our goal of enabling the public to access their cultural heritage freely. We vow to stand by and develop our village green, encouraging people to use it, play on it, picnic on it, and preserve it for all Europeans both today and in the future.

This article is co-written with Beth Daley, PR & Editorial Officer, Europeana.

---

1 Europeana opens up full dataset for re-use, http://pro.europeana.eu/pro-blog/-/blogs/1283832
2 Europeana Linked Open Data (LOD), http://pro.europeana.eu/linked-open-data
3 http://arxiv.org
4 http://www.library.manchester.ac.uk/aboutus/locationsandopeninghours/learningcommons/
5 http://library.illinois.edu/ugl/lc/
6 Europeana Network Officers, 2012.
7 The European Commission Directorate General for Communications Networks, Content & Technology http://ec.europa.eu/dgs/connect/en/content/dg-connect
8 European Research Area, European Commission, http://ec.europa.eu/research/era/index_en.htm

References

Berger, Jake, *Digital Public Space: Turning a Big Idea in to a Big Thing,* 14 October 2011, accessed 25 March 2013, http://www.bbc.co.uk/blogs/bbcinternet/2011/10/digital_public_space_idea.html

Edson, Michael, *Imagining a Smithsonian Commons*, 2009, Smithsonian Institution, 31 March 2009, accessed 25 March 2013, http://www.slideshare.net/edsonm/cil-2009-michael-edson-text-version

Europeana Network Officers, *A Cultural Commons for Europe: Discussion Paper*, March 2012, accessed 25 March 2013, http://www.pro.europeana.eu/documents/858566/0/Cultural+Commons

Hess, Charlotte; Ostrom, Elinor (Eds), *Understanding knowledge as a commons: from theory to practice,* Cambridge, Massachusetts: MIT Press, 2007.

Hess, Charlotte, '*Mapping the Commons',* 12th Biennial Conference of the International Association for the Study of the Commons, University of Gloucestershire, 14-18 July 2008.

GLAMourous remix

Openness and sharing for cultural institutions

MARTIN VON HALLER GRØNBÆK, LAWYER,
PARTNER AT BIRD & BIRD

Creative Commons is an alternative to traditional copyright licensing, offering creators and rightsholders a simple and flexible set of tools to define how their works may be shared and reused. This opens up new opportunities for the culture sector to expose content and encourage sharing and reuse on the Web. With his legal expertise, Martin leads us through Creative Commons – its background, history, and opportunities.

An unopened treasure trove

The value of culture is directly proportional to the number of people who experience it. The objective of all cultural institutions must be to have the greatest possible amount of the knowledge they possess accessed by as many people as possible. Whether the institution in question works with art, data, archives, stories, or any other form of culture, its very raison d'etre – apart from collecting – is to disseminate as much knowledge and insight it possibly can.

Culture is not just an object of passive consumption. Culture is very much alive and is at its most vibrant when experienced jointly, shared amongst the people within a community, and prompting even more culture in turn. Cultural institutions do not just look back in time; they also look

ahead by helping to shape the basis on which our present and future culture, democracy, economy, and all other aspects of society are based.

All cultural institutions should endeavour to be as open as possible in the sense that as many people as possible should have the easiest access possible to the institution's content. At the same time the institution should seek to ensure that the freely available content is shared, enriched, and processed by users, whether they are citizens, students, scholars, researchers, or commercial ventures.

Content that has been digitised and can be accessed online via the Internet is by nature open and can be shared. Stewart Brand's famous maxim "Information wants to be free" encapsulates, in all its simplicity, the fact that digitised content can be copied and distributed at zero marginal cost.[1] Digitisation and the Internet allow cultural institutions to realise even their wildest dreams about maximum accessibility and exposure to a maximum number of users.

So why have Danish cultural institutions not embraced the opportunities for opening up their digital treasure troves, making their content available for everyone to share? There can be many reasons for this, and in fact most of these reasons are poor excuses. Besides the fact that a lot of content is "copyright defective", meaning that it cannot legally be made freely available, the culture industry and its politicians still fail to realise that openness and sharing do not just tie in perfectly with the overall objectives behind the institutions and cultural policies; they also provide scope for generating income and savings.

Today, computers with Internet access put new tools at the disposal of everyone; tools that can not only access digital information, but also change, add to, modify, and improve digital content. In recent years, such digital tools have gradually become commonplace – young people today regard such tools, e.g. for editing sound, video, images, and texts as extensions of their own minds. It has become perfectly natural to modify cultural content, thereby expressing oneself politically, artistically, and creatively.

Remix is the nature of culture

This "remix culture" is evident in YouTube videos, mash-ups of photos on Flickr, the online encyclopaedia Wikipedia, and the countless number of personal blogs where 'amateurs', in the true sense of the word, express their beliefs, attitudes, and creativity.[2] Remix culture expresses a perfectly natural and human urge to continue to build on what others have created. In this sense remixing is simply an expression of the basic social nature of culture.

In the past, remixing has been restricted partly due to limitations in terms of the tools and content available in an analogue world, and partly due to countless restrictive laws and rules based in the concept that culture should not be shared without the explicit permission of the author or creator. Even though these rules, particularly copyright law, continue to curb remix culture on the private market there is no reason why this should still apply to public cultural institutions. For their business model does not rest on making money from selling copies of individual works, nor on closely monitoring and controlling such sales.

The challenge for cultural institutions is, however, that the content they posses can only be made freely available and shared by all if 1) the copyright owners from whom the institution has acquired the content give their permission, and 2) if the institution itself gives its permission in case of content to which the institution itself holds exclusive rights. Cases of the former kind entail clear and definite limitations, whereas cases of the latter kind offer far more scope for action. If they wish, cultural institutions can decide to open up their content, allowing users to share it. [1]

The Free Culture movement

Creative Commons is rooted in the Free Culture movement, which arose in the mid-1990s as the Internet began to gain momentum. It is worth remembering that when the World Wide Web was first created and the

[1] Martin von Haller Grønbæk introducing the Creative Commons system at Sharing is Caring 2011.

first browsers became available, the intention was not for these browsers to be primarily – or almost exclusively – used to access websites, i.e. only being able to "view and read" what is on those sites. The first web browsers were created to read *and* write: The World Wide Web was originally conceived as a "read/write web". For example, the first versions of the Mosaic browsers enabled users to write on and change the sites they accessed.

Only later, and especially as the World Wide Web grew increasingly commercialised, did the browser primarily become a window for traditional consumption of content. In this sense the browser was – and remains – mostly an alternative to a TV screen, albeit one with considerably greater scope for interaction as regards the opportunities for clicking on various hyperlinks and providing feedback by filling in forms. But the websites visited remain unchangeable, controlled entirely by the owner who established the website.

The first advocates of Free Culture had by such hostility towards the existing copyright regime that they wished to abolish copyright entirely. We find a corresponding attitude in the work of Richard Stallman, whose ideological objective when establishing the Free Software Foundation (the precursor of open source software) was to entirely abolish copyright in computer code.

However, such a radical approach to copyright soon proved to be wishful thinking. It is certainly possible to continue to claim the legitimacy of copyright even though information is now primarily available in a digital format and distributed via the Internet. It has also turned out that the relatively small group of industries whose business models depend entirely on strong copyright protection have such strong shared interests and are willing to spend so much money that their lobby activities preclude any radical reformation of the copyright system.

Lawrence Lessig, a US professor of Law, also reached this conclusion. He saw that something else was required if the potential offered by open access to and sharing of cultural content were to be unleashed; a potential that he – and most people who do not belong to the traditional media and culture industry – was convinced was there. Lessig suggested an approach similar to that of open source software, aiming for a solution that did not reject the copyright system, but built on it. He suggested a "hack" of the system, just like the one Richard Stallman had executed with free software. Here, the term hack should not be regarded as an illegal and malicious form of forced entry into other computer systems,

but as a clever solution to a problem, thereby returning to the original meaning of the word "hacking".

The solution was, and is, to give the creator of content opportunities for opening up access to that content and allowing it to be shared – not by forcing them to do so by changing copyright laws, but by letting them do it through licenses. This is to say that the Creative Commons licences were invented along the same lines as open source licences.

The Creative Commons systems

The idea behind Creative Commons was to prompt voluntary contributions that would help build a shared resource – a creative commons – that could be used by all, not just for themselves, but also to support further development and improvements. The creative commons were to be seen as a contrast to the real, physical commons which ended in "tragedy" when farmers let them be grazed to such an extent that eventually there was nothing left to share.[3] Unlike its physical counterpart, the digital commons run no risk of being bled dry. For with digital information the fact that one person is using a copy of the material does not prevent anyone else from using other copies of the same material. Over-exploitation is by definition impossible. The challenge is, however, to offer the authors of creative content an incentive for opening up and sharing their content on the creative commons.

Creative Commons is a set of tools that enable content creators to share their content with others via the Internet. Specifically, these tools consist of the Creative Commons licenses, which in principle work just like any other license based on the creator's copyright. According to copyright law, the creator holds the exclusive right to decide how others may use their work. And the licenses set out the conditions for how others can use the works.

Creative Commons licenses are solely concerned with copyright and do not address any other intellectual property rights such as trademarks

and patents. This is to say that if you have published a work under a Creative Commons license you have not addressed whether others may use any trademarks you have created which are of commercial significance in connection with the work. The basic assumption is that others may not use such trademarks; using trademarks will require a separate licence or permission.

Creative Commons is based on strong copyright laws. No copyright equals no licences. And without strong copyright protection it would be impossible to enforce any licences in the event of a trial caused by someone abusing a Creative Commons work, venturing beyond the usage allowed in a Creative Commons licence. This relationship with copyright laws also means that the Creative Commons concept is entirely based on a principle of volunteering. No author is ever forced to release their work under a Creative Commons licence. Such decisions are only made when they appeal to each individual author. However, the Creative Commons approach rests on the fact that for the vast majority of authors it will actually make sense to make their content openly available, sharing it with others, and so the Creative Commons licences provide the tools required to do so, easily and elegantly.

If it is possible to speak of any "coercion" in connection with Creative Commons, this will only reflect the fact that market conditions will "force" authors to share their content. The people behind Creative Commons hope that in time the market for open, shared content will eventually grow to such a size that it will "force" more entities, particularly enterprises based on traditional "closed" business models, to try out Creative Commons licences on some of their content. They also hope that having more and more content available under Creative Commons licences will raise cultural institutions' awareness of the fact that they must share their content if they wish to see it accessed and used by the general public.

All Creative Commons licences seek to meet the need for flexibility, transparency, and accessibility. The flexibility approach means that authors can piece together their own licence which perfectly reflects their

wishes and business model. The demand for transparency means that the Creative Commons licences must be easy to understand for users; they must be able to access and use Creative Commons content without having to consult legal professionals beforehand. Finally, the focus on accessibility means that content under a Creative Commons licence must be easily accessible on the Internet. Accessibility in this sense does not just mean that it must be easy to download the content, but also that it must be simple to find. To ensure this, all Creative Commons licences adds so-called meta-data to digital content, and this allows users to include licence conditions when conducting searches via most online search engines, including Google.

Fair and square

It is crucial for the success of the Creative Commons concept that its licences are seen as being fair. In this context fairness does not just refer to the ceaseless efforts to incorporate the principles of flexibility, transparency, and accessibility in the licences; it also means that they seek to strike the right balance between the authors' need to maintain a certain degree of control over their content even when it is released under a Creative Commons licence, and the user's reasonable expectations of being able to use Creative Commons content in all the ways generally considered fair in present-day usage of the Internet, computers, tablets, etc. That balance is maintained through continuous revisions of the Creative Commons licences. The revision process is entirely open, and all stakeholders are encouraged to take part in the work. The fall of 2014 saw adoptation of version 4.0 of the licences.

All Creative Commons licenses provide users with certain basic rights. If you cannot accept giving your users these rights you should refrain from applying a Creative Commons licence to your content. If you do, all users will have the right to copy the work, distribute it, make it accessible to the general public, and to change the work as required in order to transfer it from one technical medium to another. Conversely, all licences also assume that users must abide by certain rules. Users

may not use the work in ways other than those outlined in the license; the author will continue to hold the rights to any other form of usage. Users must always state who holds copyright of the works they access, distribute, etc. Users must also always ensure that any works distributed by them include a link to the original Creative Commons licence, thereby ensuring that new recipients of the work can also see and check the rules applying to usage of the work. Of course users cannot change the terms and conditions stated in the licence – not for themselves, nor for others. In every Creative Commons licence the author will keep his copyright. Using a Creative Commons licence does not transfer copyright to users.

Creative Commons licences have the benefit of being global in the sense that even when they exist in local languages the overall rules still apply to all Creative Commons licence, and when a given work is released under a Creative Commons licence it can be used anywhere in the world in accordance with the conditions laid down in that licence. Creative Commons licenses are in force for as long as copyright applies to the work in question. It goes without saying that when all copyright lapses, no Creative Commons licence is required, for by then the work will be in the public domain. This also, however, means that no other time restrictions apply. Once you have released your work under a Creative Commons licence it applies for as long as copyright applies to the work, and the licensor cannot revoke their licence. In this way, all users of works licensed under Creative Commons can be certain that they can use the works without running the risk of the original author getting "cold feet" and revoking the licence. The license is irrevocable.

The author decides

The Creative Commons licences have a built-in flexibility which means that they can be combined to include a range of conditions that perfectly match the author's wishes and business model. Licensors can choose whether or not they wish to be credited in connection with the work.[4] You can also choose that your work may only be used for non-commercial purposes. Finally, you can allow your work to form the basis for deriva-

tive work and stipulate that any users who make such derivative works must also "share alike"; i.e. release their derivatives under the same Creative Commons licence.

The opportunity for distinguishing between commercial and non-commercial usage often prompts questions. However, the distinction between commercial and non-commercial use is normally quite uncontroversial. When a private individual wishes to use a Creative Commons licensed photo on their private weblog, when a scientist wishes to use Creative Commons licensed data in their research, when an NGO wishes to use Creative Commons licensed music as part of a campaign all such uses clearly fall within the realm of non-commercial use. If, however, a company wishes to use Creative Commons-licensed material in a brochure, if a musician wishes to record Creative Commons licensed compositions and to make money from selling that music, or if a TV station or movie theatre wishes to use Creative Commons licensed documentaries against a fee, then these are all clear-cut examples of commercial use of the materials. The Creative Commons organisation recognises that grey areas exist and spends considerable time and effort exploring the definitions of commercial versus non-commercial usage. In preparing for version 4.0 of the Creative Commons licenses the community discussed whether the distinction should be left out altogether. The result was to keep the distinction.

The author's exclusive rights also include the right to create derivative works. The Creative Commons licenses can be used to allow users to create derivative works, and this particular right is often quite crucial for achieving the real objective behind providing access and sharing content. If users do not have the right to create derivative works it will, in the vast majority of cases, not be possible to create mash-ups, improvements, and other things that contribute to the creative commons.

If a licensor has allowed users to create modifications of their work in order to ensure an expansion of the creative commons it is only natural that they should want such modifications to also become part of the Creative Commons licensed work. To ensure that the work remains a

unified whole it is possible to stipulate that the right to create derivative work is only granted when users who create such derivative works make them available to their users on the same terms as the original work. This "share alike" condition is essentially the same as the "copyleft" condition applied under many open source licenses. It is important to emphasise that the "share alike" condition only applies to users who choose to distribute their modifications. You do not need to make your modifications available to others, but are welcome to keep them to yourself. The "share alike" condition only enters into effect when you redistribute works, and only for the individuals to whom you choose to redistribute them.

Usage and spread of Creative Commons

As an author or creator – or as a cultural institution holding the rights to content – you can choose to combine the Creative Commons different terms. The range of possible combinations is quite large, and any cultural institution will of course need to carefully consider which conditions are necessary to achieve the desired results, and which might directly help bringing about those results. Once a choice has been made it is very easy to attach the license terms to the work. Given that the vast majority of works will be available in a digital format you will usually simply visit a Creative Commons website to build a your license. On the website you will find an online licence generator that allows you to piece together the right licence by means of a few clicks.

The licence conditions selected will then be generated as HTML code or some other format capable of being "cut and pasted" into the digital file or placed on websites that the users will visit when accessing the work. The system also generates a small graphic file that describes the licence conditions in a pictogram format.

The pictograms make it very easy for potential users of Creative Commons licensed content to get an overview of how that content can be used: Is commercial use allowed? What about derivative works? – and

so on. Clicking on a pictogram will take readers to a more detailed, but still straightforward description of the licence conditions. And if you should wish to read the actual licence conditions, phrased in legal terms, you can click your way onwards to this information. Finally, the licence conditions will be linked to the digital work in such a way that most major search engines, such as Google, allow you to specify searches to include only works that can be used under a Creative Commons licence to match your requirements.

All in all the Creative Commons licences offer unique opportunities for applying licence conditions to content, giving users easy access to the material. Creative Commons licences ensure that the material can be used legally and without contravening copyright law. The fact that Creative Commons licences are based on Internet technology, and the vast ocean of information and content available online makes it very likely that users can find exactly the right content to be used in precisely the way they wish.[5]

Today Creative Commons is the *de facto* standard for licensing open content. Versions of the licence exist in almost 130 countries, and its legal standing and recognition – in the market place and politically – cannot be disputed. Creative Commons licences are used by the EU, the US government, large corporations such as Maersk, and countless NGOs and cultural institutions across the world.[6]

Creative Commons is a means to an end, not an end in itself. As a licensing tool, Creative Commons points directly to an objective that ought to be a perfect fit for Danish culture institutions: Placing as much content as possible at the public's disposal on the most open terms possible, not just for Danish citizens but for people worldwide.

1 http://en.wikipedia.org/wiki/Information_wants_to_be_free
2 See e.g. http://www.flickr.com/groups/mashups/
3 See http://en.wikipedia.org/wiki/Tragedy_of_the_commons
4 This may, however, not be possible under European copyright law insofar as attribution is part of the so-called moral rights.
5 Creative Commons can also be used if a cultural institution wishes to make content available without any restrictions whatsoever. For example, an institution might elect to have no association with the content in question to avoid any PR-related issues if that content should subsequently be used in unsuitable contexts or if the content is modified in a manner that does not match the institution's marketing profile. In such cases Creative Commons licenses make it possible to make content that is still subject to copyright law available on terms that come as close to the public domain as the law allows. This is done by selecting the Creative Commons public domain dedication license, or CC0 as it is also known.
6 Examples of Creative Commons licenses within the realm of culture can be found on the website http://wiki.creativecommons.org/GLAM

Towards a shared Danish infrastructure for collection management and presentation

HENRIK JARL HANSEN, SENIOR EXECUTIVE ADVISER AND PROJECT MANAGER OF SHARED MUSEUM IT, THE DANISH AGENCY FOR CULTURE

CHRISTIAN ERTMANN-CHRISTIANSEN, HEAD OF DEPARTMENT, THE ROYAL LIBRARY OF DENMARK

In Denmark, work is being done to build a shared system for the registration of Danish museum collections. At the core of the project lies the need for a well-functioning and updated infrastructure which will make it easy and simple to create overviews across Danish museum collections, and to reuse data in the institutions themselves as well as in the context of Europeana. But, as related by Henrik and Christian, the process towards greater simplicity and usability is often a complex one.

Infrastructure is not necessarily the most enticing of keywords, but it is essential to this article, which focuses on a new collection management system for Danish museums. Like any other infrastructure project, the objective is to improve things, and the point of departure is the status quo. And for this project, which has the working title "Shared Museum IT" ("Fælles museum-it" or FMIT) the status quo constitutes a strength *and* a disadvantage at the same time. The project is complex in scope and it is only possible to provide a general introduction here.

The Task

The Shared Museum IT project was launched in 2011 by the Danish Ministry of Culture with the Danish Agency for Culture as co-ordinator. The starting point for the project was recommendations made by a consulting firm and a working group comprising members from several museums.[1]

The objective can be described in the following terms: By the time the new, shared collection registration system is in active use in 2016, we will have seen a consolidation and modernisation of the central registers and of the state-operated museums' registration systems. The basis for this will be a new, shared conceptual reference model and data model, and a new, shared database complete with a range of applications and interfaces with relevant services. The museums will have been directly involved in the modernisation and consolidation efforts.

Among other things, the new infrastructure will facilitate a national overview of the collections of art and cultural artefacts housed at Danish museums; an overview that is much clearer and more complete than is possible today. The new structure will also support digital working processes, reusing data within the institutions' own IT solutions, and facilitate reporting to the European cultural portal Europeana. This will mean that the solution will be in accordance with e.g. the European Commission Recommendation on the digitisation and online accessibility of cultural material and digital preservation, the Danish Ministry of Culture's digitisation strategy, and the Danish eGovernment Strategy.[2]

Status

At the time of writing (late 2013), the first project stage is approaching its completion. What lies ahead is the actual development of the new system. It is too soon to describe what elements it will comprise and which technologies will be used. However, the point of departure is to continue the Agency's policy of using open source and service-oriented IT architecture.

As regards the user interface, we plan to use a number of profiles, adapting them to various types of museums and collections. This will ensure that users primarily see fields and data that are relevant to their immediate needs.

Of course, such individual adaptation challenges the opportunities for carrying out full searches across all registered materials. These two issues must be balanced as work progresses.

Taking the existing set-up as the starting point

The museums must carry out their task of collecting and preserving our cultural heritage while also working to continually define their role and justification in contemporary society. The role as stewards of digitised and digital cultural heritage presents certain challenges in itself. The quantities of data to be handled are very large and wide-ranging in scope. This challenge is made substantially greater by the demand for having a shared collection registration system bridge the gap between existing systems while also supporting new opportunities.

The new Shared Museum IT system must be able to hold all data from the various collection registration systems currently used by the museums, whether that content is digital art or soil samples from an archaeological dig.

The systems currently in use are the Danish Agency for Culture's widely used Regin system (for cultural history and art), the National Museum of Denmark's GenReg system, which exists in several different versions associated with particular fields of collecting, and SMK's CollectionSpace, an open source system which the museum co-develops in collaboration with an international consortium.[3] These are supplemented by the archaeological museums' MUD system and by The Museum System, which a few Danish art museums use. Finally, a number of additional systems are each only used by a single museum.

The traditions underpinning the institution's registration work also vary considerably. Art museums base their registrations on the artwork, the National Museum of Denmark on each individual object, whereas the Regin system is based on the individual museum case.

For these reasons, creating a shared conceptual reference model capable of accommodating the existing data has been a complex task. The process was carried out in close co-operation with the museums, and the work has not yet been fully completed. The new, shared model is based on the existing models and inspired by international standards such as SPECTRUM and CIDOC CRM.[4]

Collaboration as new norm

When the Danish Museum Act was amended in 1982, two central registers were established: The Central Register for Cultural History and Art Index Denmark. The two registers were housed at the main museums within their respective fields: The National Museum of Denmark and Statens Museum for Kunst. All state-operated and state-recognised museums were officially charged with the duty to register all items with these registers. Other systems have entered the scene since then. In the mid-1980s, The Danish Museum Council (now defunct) adopted the so-called Danish Museum Documentation Standard and developed the registration system Danish Museum Index. That standard would later become an important part of the present-day Regin launched by the Heritage Agency of Denmark around the beginning of the new millennium. Concurrently with this, the National Museum of Denmark developed the GenReg system in connection with a major remodelling of the museum that necessitated a temporary removal of many artefacts and exhibits.

Steps have been taken to converge and consolidate the various registers and records on numerous occasions, but the present initiative is the first that is well on its way to succeed. A change in attitude seems to have taken place during the process. Co-operation is increasingly regarded as an important aspect of the museums' digital work. Such co-operation

makes us better equipped to handle the challenges presented by fragile digital data, rapidly growing quantities of media files, and an increasing number of proprietary file formats. Museum professionals have a perfectly natural desire to focus on communication and reuse of information instead of worrying about the day-to-day survival of data in the digital minefield.

This back history is also interesting because it was instrumental in shaping and defining the quality of much of the data that is digitally recorded today. Much of this data has been converted from analogue sources, including the so-called blue registration cards that were widely used from the mid-1960s onwards, particularly at museums of cultural history. Of course, data has also been entered directly into databases as the present-day registration systems became available.

Data quality within the existing records is quite varied. Some records are fully adequate, while others are sporadic and of varying quality. This means that the museums face a major task: Upgrading their basic data in order to make them suitable for general availability, presentation, education, and international exposure.

That task will not be carried out automatically in connection with the Shared Museum IT project. The project focuses specifically on establishing a shared infrastructure whose primary elements consist of a database that includes a media archive (Digital Asset Management System or DAMS) and a storage solution. It will also incorporate interfaces that allow for the subsequent addition of specialised modules and, very importantly, easy import and export of data.[5]

Crowdsourcing and collaboration

Crowdsourcing may be one of the options used by museums to upgrade their existing records. No Danish museums use the method at present, but quite a few are planning to do so.

The Shared Museum IT system will support crowdsourcing. The plan is for Shared Museum IT to be able to encompass data enrichment from scholars as well as the general public for any museum that wishes to avail itself of this opportunity. Investigating the concept of crowdsourcing falls outside the scope of this article; suffice it to say that it is currently being used to great effect by others. For example, the Royal Library in Copenhagen has experienced great interest and commitment from users in connection with the project "Denmark seen from above" (Danmark set fra luften)[6] and the method is in widespread use internationally.

Collaboration is a crucial factor for the Shared Museum IT project, and the museums have shown great interest and been very willing to take part in preparing the conceptual reference model and in workshops, whether the subject of those workshops was storage, media archives, or the project's business case. Collaboration has also helped determine the project's level of ambition as regards the use of technology and other important aspects.

Sharing quality

The Shared Museum IT project is now facing the actual development process. That process will gradually reveal exactly which elements the system will comprise and how the interaction between user interfaces, database, storage, and media archive will be resolved in practice. This is also where we must ensure that data can flow freely into any special solutions created by the museums or third parties for dissemination and education projects, etc.

Any shortcomings in the underlying data will be revealed by this point. Even the best of infrastructures cannot disguise poor quality data, but it can make it easier to upgrade that data. The old "garbage in, garbage out" adage from the infancy of the computer era still holds true today, and sharing high-quality data offers much greater opportunities for everyone.

1 Shared Museum IT. Analysis of the central registers of museums and proposal for a national IT-infrastructure, Devoteam, unpublished report, 2011. The consultant in the development project is COWI.

2 Commission Recommendation of 27 October 2011 on the digitisation and online accessibility of cultural material and digital preservation, Danish version published in Den Europæiske Unions Tidende, L 283/39, 29.10.2011; Digitisation Stategy 2012-2015, 2012, The Danish Ministry of Culture, p. 13; The Digital Path to Future Welfare. The eGovernment Strategy, 2011-2015, 2011

3 http://www.collectionspace.org/

4 SPECTRUM – The UK Museum Documentation Standard, Version 3.1, Collections Trust, 2007; CIDOC, The CIDOC Conceptual Reference Model, most recent update 18 January 2013, accessed 24 July 2013, http://www.cidoc-crm.org/

5 The data conversion process still lies ahead of us, so we do not yet know whether we will succeed in getting all data firmly in place at the first attempt. The task will certainly be considerable. The plan is to have all data from the museums that currently use Regin converted and ready by the time of the launch of the FMIT system in 2016. The National Museum of Denmark has also expressed a desire to be part of the project from early in the process.

6 The Royal Library, Denmark seen from above, accessed 24 July 2013, http://www.kb.dk/danmarksetfraluften/

Digitising the Danish Broadcasting Corporation's archives

– an innovation project

TOBIAS GOLODNOFF, PROJECT MANAGER OF
THE DR CULTURAL HERITAGE PROJECT

MIRIAM LERKENFELD, WEB EDITOR AT DANSKKULTURARV.DK

The Danish Broadcasting Corporation (DR) Cultural Heritage Project is a digitisation and innovation scheme that does not just aim to digitise Danish cultural heritage in the form of radio and television programmes from the DR archives; it also sets out to make cultural heritage accessible to all Danes. Over the course of the project, DR has reduced the market cost of digitisation, created a new digital platform for content sharing, and helped build a network that collaborates to find best practice models. This article describes two cases, each based on collaboration, showcasing how sharing has had a great impact on development and innovation work. Indeed, sharing has allowed DR to generate a great deal of additional value from the funds (DKK 75 million, corresponding to EUR 10 million) originally allocated in the Public Service contract 2007-2010 to digitising the DR programme archives.

As DR's Cultural Heritage Project is reaching its final stages, the work is now focusing on various collaborative projects that help to identify how the digital cultural heritage can be presented and made accessible in ways that make it easy to use and share it.

The project has a wide scope and is focused on three core tasks: digitising the DR archives, providing access to our cultural heritage, and creating collaborations that cut across the culture sector, partly via editorial work and partly through technology sharing schemes. Focusing on these tasks has fostered viable, sustainable innovation that has helped optimise the digitisation process, enabling us to digitise more than 70 % of the DR programme archives at this point. This result far exceeds the 25 % originally expected when funding was allocated and the project was launched in 2007. The current objective is to have around 80% of the archived programmes digitised when the earmarked funds have been spent in 2014. Furthermore it is now clear that the project has been a catalyst for a wide range of collaborative projects all focusing on our shared cultural heritage.

Case 1 – Joint dissemination and technology sharing schemes in the culture sector

In the DR Cultural Heritage Project, the main focus of DR's endeavours is to promote dialogue between our shared cultural heritage and the general public. The project wishes to encourage interactive usage rather than just passive consumption. DR should not only provide access to as much data as possible; it should also allow for various forms of active use of the material.

Therefore, DR has joined forces with a range of public cultural institutions to collaborate on developing new ways of enhancing and promoting access to – and the presentation of – our shared cultural heritage. The collaborative scheme is the first of its kind in Denmark and offers opportunities for examining how different and separate collections can enrich each other and bring a wider range of perspectives into play when presenting the Danish cultural heritage digitally. Usually, the collaborations consist of activities and projects pertaining to the domain danskkulturarv.dk or the media handling system Cultural Heritage Archive Open System (CHAOS:_).

Danskkulturarv.dk can be described as a lab dedicated to the dissemination of Danish cultural heritage, but it is also a search engine that provides access to digitised content made available by the various institutions. At present, users can access more than 140,000 digitised objects from Danish cultural heritage supplied by e.g. the Royal Library, the Danish State and University Library, the Danish State Archives, the Danish Film Institute, the National Museum of Denmark, Statens Museum for Kunst, DR, and KUNSTEN in Aalborg – and more material is added regularly.

The long-term objective of danskkulturarv.dk is to enable Danish citizens to develop their own services and to create new contexts in which users can seek out and explore cultural heritage content for educational as well as entertainment purposes. To this end, danskkulturarv.dk has for example made an open API available in 2013 and participates in events such as #hack4dk.[1]

If you combine the right content and the right technical tools you can give rise to an infinite number of projects presenting Danish cultural heritage to the public. DR's Cultural Heritage Project has developed a number of tools in order to fully encompass and embrace this notion. Within the collaboration of danskkulturarv.dk we have developed mobile apps, workshops, online exhibitions and events. The many different activities and projects explore a wide range of usage and presentation of our digital cultural heritage.

As a result, danskkulturarv.dk can combine data and content from different sources, handle it on different platforms and in an unlimited number of usage situations. DR has developed the system CHAOS:_ in collaboration with e.g. the Danish State and University Library, SMK, the LARM Audio Research Archive and KUNSTEN. CHAOS:_ continues to evolve as new technologies become available and capable of handling various individual requirements from different partners.

The various collaborators, or partners, can choose to get involved in several different ways. Their involvement ranges from supplying data that is searchable on danskkulturarv.dk, to actively participating or even carrying out major projects themselves. Some partners use the collab-

[1] Ivan Dehn, DR (leftside), and ars Ulrich Tarp Hansen, KUNSTEN (rightside) presenting danskkulturarv.dk and CHAOS:_ at Museums and the Web 2013.

orative set-up to jointly develop a product portfolio; e.g. Kulturarv Nord where ten members (e.g. Skagens Museum, KUNSTEN, and Nordjyllands Kystmuseum) are currently developing a range of different iPhone applications. [1]

In addition to being a technical system, CHAOS:_ is also an open source collective that allows partners to use the existing technology to whatever extent they wish. Their day-to-day usage of the system and the new requirements revealed through such use helps prompt further development of the technology and system. When more people use the system and continue its development, we all benefit in the form of greater cost-efficiency and optimised operation. The partners share the lessons learned over the course of their individual development work, and at the same time, they reap the benefits of existing functions and functions developed and funded by other parties.

Partners in the CHAOS:_ set-up can access the API and use a range of plug-ins for e.g. Wordpress and Drupal. These tools allow users to incorporate objects and collections from danskkulturarv.dk and to pull out data to external applications or websites. The only requirement is that the content must comply with any rights restrictions applying to the material in question.

Case 2 – Digitisation and collaboration with a private enterprise

In 2005, DR relocated to its new premises, where a partial goal was to make the entire production apparatus digital, and this included the archives ("The Five Finger Plan", DR, 1999). The digitization of DR's program archive has contributed to DR's involvement in sharing content and technology with the culture sector. DR's archives contain a wealth of radio and television programmes, storing 478,000 hours of radio and 100,000 hours of television and film footage. In DRs Cultural Heritage Project, the focus is on industrialised mass-digitisation methods that reduce the cost of the work, allowing DR to digitize content at the lowest possible price while still maintaining the required quality.

When it comes to digitizing DR has chosen that it is important to digitize everything within the collections because the entire archive is part of the national heritage. Furthermore it is very difficult, subjective and costly to select within the archives. The order of digitisation is determined by the threat of deterioration; content that is most at risk of deterioration is digitised first. Several new formats are less durable than older ones, which means that in many cases, content preserved on newer storage formats have been digitised first.

One of the main results yielded by the process is the development of technologies and working methods that have optimised digitisation processes and thereby greatly reduced costs compared to existing market prices. In collaboration with the Belgian sound digitisation company Memnon, DR has developed new digitisation processes that has reduced

international price levels from approximately EUR 50 per hour to a rate of less than EUR 3 per hour when digitizing DAT tapes.

The reduction in price was a consequence of the implementation of internal and external workflows and new methods that simplified the process while removing manual and physical bottlenecks. This method can be described as based on "transparent boxes".[2] In contrast to a "black box", the concept of "transparent boxes" employs an open form of outsourcing where both parties can use each other's competencies and insights at various stages in the workflow; a much more flexible approach compared to specifying both the given input, process and output.

These new processes evolved while digitising DR's collection of DAT tapes; a collection which encompasses more than 180,000 tapes, each with two hours of playing time. It was – and to this day probably still remains – the world's largest DAT digitisation effort. A work that could not be delayed as the collection was at risk of deterioration.

When the project was launched, DR did not have the hardware or expertise required for industrialised digitisation of DAT tapes, so after a tender process, the corporation entered into a partnership with Memnon. One of the criteria stipulated in the tender process was that the successful bidder must enter into close co-operation with DR on developing new digitisation processes. That particular requirement reflected DR's wish to have the entire collection digitised at a cost corresponding to EUR 3 per hour or a total of EUR 1.2 million for the entire collection – a target price so low that it would require the development of new methods previously unseen in the market.

The radical reduction in price is partly a result of overall developments in technology: Better and cheaper technology regularly becomes available. However, the key factor was the process optimization created through the use of the "transparent boxes" and the new digitization methods it helped DR and Memnon to develop together both in the physical and technical domain.

Sharing generates value

The DR Cultural Heritage Project is not yet concluded, but the project clearly demonstrates that sharing is an important parameter for success within the digital cultural sector. While digitising its archives, DR has shared knowledge and information with other stakeholders – inside the DR organisation and externally – thereby creating new knowledge, optimising methods, and developing new technology that has speeded up the digitising work. Furthermore, other international broadcasters and AV archives have been allowed to share in the lessons learned by DR, meaning that those organisations now use the same processes to digitise their own archives, enjoying the same savings that DR achieved. [2]

The project has focused on developing an open platform capable of facilitating proper presentation and dissemination of the Danish digital cultural heritage. Ideally, all cultural institutions should be able to use

[2] Uffe Elbæk, former Minister of Culture, giving the opening speech at the launch of danskkulturarv.dk, 12 September 2012 in the DR-City.

this platform to ensure that digital collections can enrich each other across institutional boundaries, and at the same time they will, jointly and separately, have the opportunity to develop new digital products.

Such products can offer users new and better access to the history shared by all Danes, allowing it to be re-contextualised in accordance with the various cultural institutions' individual strategies and technological opportunities. In other words, sharing knowledge, experiences, methods, means, and technologies is essential in order to allow everyone in the cultural sector to optimise their work and expenditure – and in order to avoid having numerous institutions spend money on developing systems that others are already working on.

---

1 http://hack4dk.wordpress.com/ Read more in Jacob Wang's article p. 178 ff.
2 Golodnoff & Lerkenfeld 2011.

References

The Danish Ministry of Culture, Media Policy Agreement ("Mediepolitisk aftale for 2007-2010"), 6 June 2006, no updates, 10 April 2013, http://kum.dk/Documents/Kulturpolitik/medier/Medieaftalen/medieaftale%202007-2010%5b1%5d.pdf

Golodnoff & Lerkenfeld, Exploring Cultural Heritage and Value Creation – a case study for DR's Cultural Heritage Project, August 2011, 10 April 2013, http://issuu.com/lerkenfeld/docs/ma-thesis

The Five Finger Plan: DR in Ørestaden. Draft work schedule ("Femfingerplanen: DR i Ørestaden. Udkast til en arbejdsplan."). Prepared by DR, 6 May 1999.

Emmanuel Hoog (then President of Ina and FIAT), World call for the preservation of broadcast archives, October 2004, 10 April 2013, www.ccaaa.org/paper_worldcall.html

For additional information on www.danskkulturarv.dk, please consult the websites www.dr.dk/kulturarv and www.chaos-community.org.

Open data at the Swedish National Heritage Board

LARS LUNDQVIST, HEAD OF INFORMATION DEVELOPMENT,
THE NATIONAL HERITAGE BOARD SWEDEN

For a number of years, the National Heritage Board in Sweden has worked intently to develop a common infrastructure for Swedish digitised cultural heritage, so that it can be searched, shared, and reused on contemporary media terms. Lars recounts the coordinated efforts of the National Heritage Board to ensure a sustainable infrastructure and consistent open licensing of data across the vast Swedish heritage landscape.

New conditions for heritage management

The conditions for and potential of information management and communication have been changed radically by the introduction of new media and new technology. The web enables individuals and institutions to share information and collaborate on a global scale. This challenges local perspectives and prerogatives and affects traditional business models. What was relevant in a pre-web, pre-digital era has in many cases become obsolete.

These changes have influenced strategic thinking at the Swedish National Heritage Board (NHB). New media are not merely new mass medial channels, they call for new ways of thinking. The institution's traditional role as broadcaster, which expects users to visit the institution on a 6-day/6-hour basis, is challenged by a constantly accessible communication network that encompasses a wide range of information resources and experts in many fields. Digitization has changed our users'

[1] Interlinked plants.

expectations and their behavior and all this together has created an urge to adapt to these changes in order to stay relevant. [1]

In this paper I will briefly outline some actions we have taken at the NHB. Focus will be on open data and the significance of licensing metadata. The overall objective is to facilitate use and reuse of digital information for research, community planning, education, creativity and cultural creative industries.

Open heritage and the semantic web

One of the NHB's tasks is to provide the Swedish historic preservation sector with information on ancient monuments and historic buildings as well as infrastructure for museums. Since 2008, the NHB has been working under a government mandate to manage and develop the web service Swedish Open Cultural Heritage (SOCH)[1] – an infrastructure mainly for historic preservation and museum domains. SOCH aggregates information from over 20 institutions (5.1 million objects as of September 2013) thereby enabling searches across institutional boundaries. SOCH's aim is to streamline information searches and, by serving as an open resource for application developers, to stimulate application development. The NHB and SOCH also act as a national aggregator for Europeana.

SOCH provides the basis for the NHB's work with linked open data. At the NHB we believe that the semantic web can be a remedy for fragmented cultural heritage resources, and we aim to replace current unstructured information resources that inhibit search and usability with an infrastructure built on semantic principles.[2]

Digitization spoils us

It isn't easy to comprehend where the digitization of society will take us. Development is rapid. It is difficult to predict what will become the norm and which technologies have the longevity to be implemented in an agency such as the NHB. However, it is not an option to simply sit and wait for the future, because it is due to come to us every day. The NHB has existed for some 380 years and has so far been able to adjust to societal changes over the centuries.

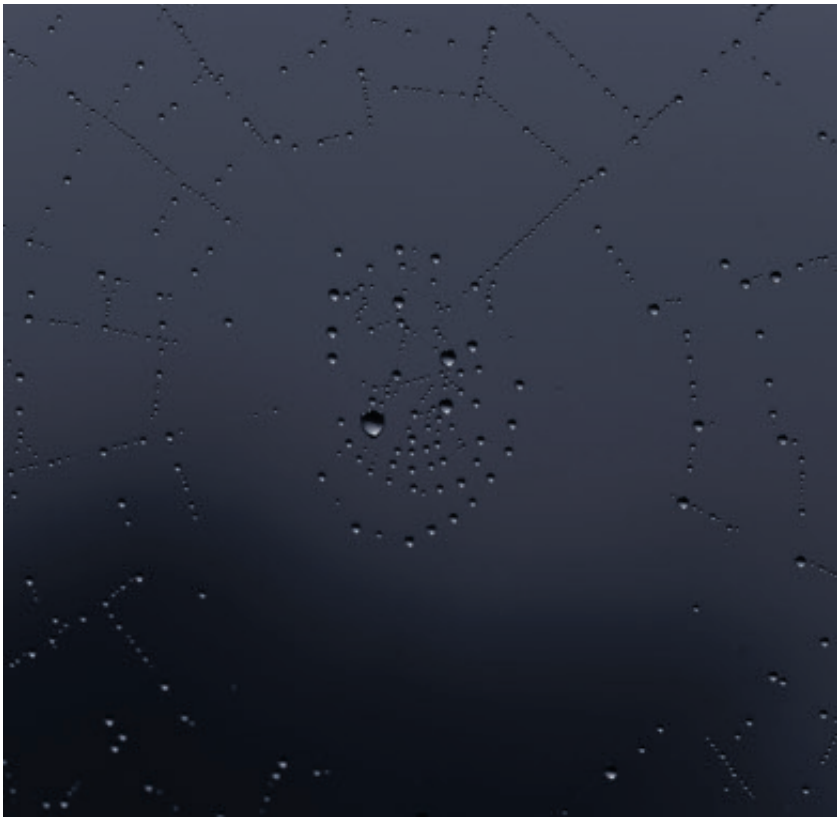
So here we are, online, taking for granted unprecedented access to a vast quantity of information and services, 24/7. We are all becoming more impatient and, in a sense, spoilt. Tasks that 10 years ago took us days or weeks to accomplish are now completed in minutes or hours.

We experience this change every day and may scarcely be aware of it anymore. It happens in our everyday life as well as at work.

The nature of digital information

The nature of digital information on the web differs radically from analog information in a mass media context. This is not always fully understood within public sector institutions, and this sometimes creates a mismatch when it comes to information management. Information managers need to understand how digital information can "act" on the web:

[2] Links bring meaning to information.



- The moment you publish information on the web, you lose control of it.
- On the web, borders are irrelevant, whether they are political-administrative or institutional.
- Digital social networks are becoming the primary platforms for diffusion of ideas and opinions.
- People look for information on the web in order to solve a problem. It is of secondary importance which institution manages information. [2]

"If it's not findable, who cares about it?"

The web provides enormous amounts of information. The number of institutions sharing their collections is growing, as is the number of collection items. The abundance of sites may not pose problems for experts who are very familiar with the institutional landscape and seek a clearly delineated range of information. But for those who don't know *which* institution holds *what* information, things get very complicated.

This is where the semantic web comes into play. Its strength lies in the fact that it makes heritage information accessible, visible, and findable, and allows it to be linked to related data.[3]

In the long run, this may be the key to maintaining relevance in a digital era. As described in a tweet I saw a few years ago:

"If your content is not interoperable, it's not findable. If it's not findable, who cares about it?"

Knowledge is elsewhere

Openness is not just about distributing information. It is also a matter of being present in order to interact and cooperate with the people who want to follow you. Ideally, openness allows you to work together with members of the community.

This is important when it comes to developing content in our databases. We have to realize that the true experts on cultural heritage and historic preservation are not necessarily working at the NHB, and that we will never be able to maximize quality and completeness of our content without help from an external community.

Another crucial question, and one that is more relevant for this paper, is: How will we ever be able to provide all of our different target groups such as researchers, heritage managers, exhibition producers, teachers etc. with information and services? It is quite obvious that the NHB alone will never be able to meet all of society's needs, because we will never be able to build services or applications to support all of our target groups. First, we must admit that developing applications is not one of our strengths at the NHB. Furthermore, our knowledge of existing target groups and their needs is limited, and we can't predict the emergence of new ones in the future.

We must also consider our role as managers of information. Is it our business as information managers to restrict reuse of publicly funded data? Is it our mission to control and direct how individuals use digital cultural heritage? In my opinion it is ideologically problematic *not* to release digitized cultural heritage – cultural heritage is a common property and concern.

A new agenda: Open data

The NHB is pursuing a strategy that will allow us to release raw data so as to make it as reusable as possible. As it is our hope to be able to support the needs not only of the historic preservation community, we aim to ensure that information can be used for other purposes, by other user groups as well. Our role will be focused on quality issues and the development of the NHB information system to better support work within the cultural heritage sector and beyond. In short, this might be expressed as follows:

Digitization at the NHB shall make it as easy as possible, for as many as possible, to use and reuse culture heritage information. The ultimate goal is to enable people and institutions to share content beyond the boundaries of applications and websites.

The obvious way to make our data accessible in this way is to work within the guidelines that define open data, which according to Wikipedia can be defined as:

"the idea that certain data should be freely available to everyone to use and republish as they wish, without restrictions from copyright, patents or other mechanisms of control. (…) [T]he term 'open data' [is] gaining popularity with the (…) launch of open-data government initiatives."[4]

The Public Sector Information (PSI) directive, which aims to remove barriers that hinder the re-use of public sector information throughout the EU, also supports the idea of implementing "openness." It points out that all agencies must make their data accessible for reuse.[5]

There are good reasons for spending less resources on institutional, domain specific silos or "portals". Instead, more effort should be put into licensing data and developing an infrastructure that enables the efficient distribution and unrestricted use of data. The goal is to stimulate stakeholders like researchers, municipality planners, the tourism industry and many others to link to and access remote information in their own systems and applications via technical interfaces.

How to communicate "openness"?

There are clear indications that public sector institutions are becoming more generous in allowing re-use of digital material. This is mostly communicated on an institution's website, often conditionally, with phrases such as: "Feel free to use the image but you must describe how you will use it", or "You may use the image, but you are not allowed to make

derivative works". This model might work when users need information from only one or a few institutions. But this doesn't work if information is compiled from many sources, for instance in cross-search services like SOCH and Europeana. How will users and application developers learn how the material can be re-used?

To solve this problem terms for reuse must be formalized in a machine readable format. Creative Commons licensing, for example, is one model that allows a copyright holder to set terms for reuse of protected works.

Creative Commons licenses (CC) are used when a copyright holder wants to give people the right to share, use, and build upon a copyrighted work. Importantly, CC licenses can be made machine readable. CC licenses can be applied to all works falling under copyright, including books, plays, movies, music, articles, photographs, blogs, and websites. Creative Commons is not to be used for works with expired protection, e.g. works in the public domain.[6]

Working with digitization is not just about replacing old tools with new ones. The change goes deeper than that. Digitization has brought about new behaviors and new expectations within society and in some cases, new mandates from government. Each institution must explore the possibilities that digitalization offers, and design an appropriate strategy. In the case of the NHB, making its store of information and knowledge available via the semantic web both plays to its strengths and goes a long way toward fulfilling its stated mission.

Acknowledgment: Special thanks to Leslie Spitz-Edson for text improvements.

---

1 http://en.wikipedia.org/wiki/Swedish_Open_Cultural_Heritage, accessed 31 March 2013.

2 http://en.wikipedia.org/wiki/Semantic_web, accessed 31 March 2013.

3 An interesting vision to explore is the idea of a Cultural Commons, in the way Europeana describes it: http://pro.europeana.eu/web/guest/cultural-commons, accessed 5 April 2013. Read more on this topic in Jill Cousins' article p. 132.
4 http://en.wikipedia.org/wiki/Open_data, accessed 31 March 2013.
5 http://ec.europa.eu/digital-agenda/en/open-data-0, accessed 31 March 2013.
6 Read more on Creative Commons in Martin von Haller Grønbæk's article p. 141, and at http://creativecommons.org/ and https://en.wikipedia.org/wiki/Creative_Commons_licenses, accessed 31 March 2013.

Digital cultural heritage

Long perspectives and sustainability

JACOB R. WANG, HEAD OF DIGITAL MEDIA,
THE NATIONAL MUSEUM OF DENMARK

How do we ensure sustainability in the GLAM sector in the digital age? Based on his work at The National Museum of Denmark, Jacob reflects on how cultural heritage institutions best brace themselves to meet new user demands and expectations. His advice includes leaving silo culture and develop shared systems, investing thoughtfully in few but sustainable platforms, and actively engaging people who can and will do something else with cultural heritage than we as institutions are used to or capable of. Among other things, Jacob recounts how he worked on establishing the first Danish cultural heritage hackathon, #hack4dk, where programmers and developers are encouraged to hack cultural heritage data and mash them up in new and often unexpected constellations.

The invention and popularisation of computers and the Internet has given us a range of new and powerful tools. Tools that we in the cultural heritage sector should use as widely and wisely as possible.

By "widely" I mean that digital tools can and should be used within (virtually) all forms of work conducted at archives, libraries, and museums. This calls for ongoing development of our museum practices and of the tools we employ to mine the potential offered by digital technology.

By "wisely" I mean that we should, quite naturally, take note of the lessons learned from the last 15 to 20 years of work within the digital realm, using them to act more efficiently and sustainably in the future.

In the Forever Business

As archives, libraries, and museums, we are responsible for collecting, preserving, and presenting art, cultural history, collections, stories, and phenomena. This work forms the basis for our endeavours to generate e.g. research and knowledge, and we are also charged with ensuring easy, open, and free access for everyone to the material we accumulate and manage; a task which we undertake on behalf of society as such.

As (largely) publicly funded memory institutions, it is our right and indeed our duty to adopt an unusually long-term perspective in our activities. Our task is not just to be relevant and sought-after resources in the here and now; we must also strive to evolve and expand our opportunities for action in the future – for the sake of generations yet to come.

Long-term viability

When considering our work within an infinite timeframe – adopting "eternity" as our yardstick – this hones a sense of the importance of long-term viability in our activities. It does us no good to launch elaborate digital projects that very soon become obsolete and forgotten, and I strongly believe that far too many of our activities apply a much too narrow focus on present-day user groups and the current experience economy. Creating disposable projects is not in itself a problem – exhibitions are an excellent example – but such projects should always incorporate elements of lasting value. However brief and short-term their scope, our projects should always relate to and actively contribute to our long-term and future activities as archives, libraries, and museums. As museum professionals, one of our key ambitions must be to have our future colleagues, some of whom have not yet been born, look back and thank us for the important and significant work we did back in the roaring 00s, 10s, and 20s.

Lessons learned in the 90s and 00s

So what have we learned over the years? What insights have we achieved that can and should guide our future work?

We have learned that it is very difficult to create websites that achieve widespread use and relevance. This is particularly difficult if the sites launched are part of projects with a limited time span, meaning that they are not updated and amended on an ongoing basis. Denmark is flooded by old, ailing and rusty websites developed by archives, libraries, and museums over the years, and the simple reason why they are not being used rests on the fact that they do indeed look like something that was created years ago. If you set out to look for sites that are more than five years old, yet still actively used, you will need to search for a long time to find one, and you will not find many. Overall, I think it is perfectly acceptable that many of the digital products developed in the past no longer meet our users' requirements, but I do find it sad – not to mention ludicrous – that the thousands of hours spent by curators and educators creating content are now lying buried alongside the many dead interfaces. This has taught us that flexibility and opportunities for reusing content is important and that we should not waste energy developing an endless string of websites; rather, we should focus on concerted and continual commitment to a few really good websites.

On a related note, we have learned that existing platforms and media work perfectly well and allow us to achieve far more for far less: Videos on YouTube, images on Flickr, Pinterest and Instagram, dialogue and conversation on Facebook, Twitter and Google + , article-based communication and information on Wikipedia, etc. We discussed these subjects intently a few years ago, but by now they have simply become part of our everyday practice. In other words, we have moved away from focusing on portals and our own websites as the basis for communication to focus instead on our digital presence on a wide range of sites and platforms.

We have learned that the scope for digital work is vast and continues to evolve, and that our collective desire is mutable and at times unpre-

dictable. “Apps, apps, apps – we must have an app!”, “Augmented Reality – that’s the new thing. We’ve got to get us some of that”, “Touch-activated tables. They’re really nifty – shouldn’t we get one for our next exhibition?!” The examples are legion, and the eagerness to burn money on the latest thing is huge. I think it is great that Danish museums show such willingness to try out new things, but of course, we should not all be conducting the same experiments, and we should endeavour to establish firm and flexible foundations for low-cost experimentation. What usually happens, however, is that we all build our own technological solutions from scratch, which means that not only do we end up placing our content in separate, sealed-off silos; we also spend far too much money and effort on developing technical products that already exist.

Open data and hackathons

The last three to five years have seen extensive discussion on the issue of open access to data; this anthology is a good example of its prominence on our agendas. As archives, libraries, and museums, we manage cultural (heritage) data that can be relevant and useful in many contexts, and we recognise that we should endeavour to work strategically with e.g. copyright issues, open access, and infrastructure in order to allow our data to be brought into play as a fundamental resource for society. [1]

In the autumn of 2012, the Danish State Archives, the Royal Library in Copenhagen, the National Museum of Denmark, and the Danish Agency for Culture held Denmark’s first-ever cultural heritage hackathon. Inspired by Europeana’s many hackathons (#hack4eu), we chose to call this event #hack4dk. We invited programmers, IT developers, designers, concept developers, etc. to take part in 24 hours of intense labour based on open cultural heritage data. There was a dual objective behind the event. On the one hand, we wished to see whether volunteer enthusiasts who may not necessarily have any prior relationship with art and cultural history could even be bothered to take part in activities staged by us. Outreach activities aimed at this target group are a new experience for us, and so we were quite interested to see whether anyone

[1] #hack4dk 2012 at The Royal Library of Denmark.

would actually turn up for the event and whether we could make it seem meaningful and entertaining for them. If we were successful in reaching this objective, we also wished to receive constructive criticism of the technical basis for external usage we had already established in the form of public APIs. [2]

The project was a success on both counts. The hackathon attracted approximately 30 developers and 20 hangarounds, 10 prototypes and concepts were developed, and we received plenty of useful criticism and learned much. Our data sets are fine, but the developers wanted more data. In fact, the most frequently used data sources were the

quantitatively large data sets rather than – as we had expected – the most highly processed and communicable material. Our technical services were regarded as useful and reasonably well documented, but overall the general consensus was that we could do much better. So, in september 2013 we once again invited developers to join the Danish cultural heritage hackathon – this time to be held at The National Museum. At this year's event we wanted the resulting prototypes to be of better quality and more sustainable in order for stakeholders to actually see and experience them online. #hack4dk 2013 turned out to be a huge success and we are immensely proud of the achievements of the participants![1] [3]

The digital museum as platform

As yet, only very few archives, libraries, and museums in Denmark offer open and easy access to data via sensible and useful websites. The proud vanguard consists of the Royal Danish Library, offering data from the project "Denmark viewed from above", the Danish Agency for Culture with data from "Listed and landmark buildings in Denmark" and "Archaeological Finds and Ancient Monuments", and the Historical Atlas society. I have every confidence that more will follow in their footsteps.[2]

[2] #hack4dk 2013 at The National Museum of Denmark.

[3] In the zone. #hack4dk 2013.

Up until now, we have focused a great deal of attention on what external partners and players can use "our" data for, but I believe that the same question might usefully be turned on its head: "What can we ourselves use a strong digital platform for – and the flexible access to data it entails?" The National Museum of Denmark's wish to develop its digital platform should be considered within the context of the necessity of viable and sustainable digital developments – as well as the current agenda on open access to data. We wish to position ourselves as "our own best customers", for our future presentation and communication projects will draw on content from the very same services we offer to third parties. In doing so, we will achieve a marked reduction of the costs associated with developing future websites and apps – for we will have the underlying master data firmly in place once and for all. Future projects will only need to defray the costs of developing interfaces that

present the content – not for databases and services. We will be able to carry out experiments much faster and cheaper – just as the "hackers" at #hack4dk could quickly and efficiently create prototypes and beta versions of potential communication products.

As cultural institutions, we constantly find ourselves divided between two different objectives: On the one hand, we must honour contemporary society's demands that require us to be relevant, useful, and efficient. That we offer fun experiences, learning, and perspectives. On the other hand, we also have an obligation to future generations, which means that we are duty-bound to take a long-term, sustainable view of things. Digital technologies provide us with great opportunities for working wisely and efficiently within this dichotomy. 'New media' are no longer new, so let us take this simple fact as an occasion for taking a deep breath and carefully consider what kind of foundations we need as the basis for our work in the next five to ten years. For the National Museum of Denmark, the answer is quite simple: We need massive digitisation, infrastructure development, and open and easy access to collections, knowledge, and information for everyone.

---

1 See http://hack4dk.wordpress.com/projects-2013/

2 "Denmark viewed from above": http://goo.gl/xk4Dc
The Danish Agency for Culture's dataset: http://www.kulturstyrelsen.dk/kulturarv/databaser/, Historical Atlas API: http://blog.historiskatlas.dk/api/

GO

Curating with the Brooklyn community

SHELLEY BERNSTEIN, VICE DIRECTOR FOR DIGITAL ENGAGEMENT & TECHNOLOGY, BROOKLYN MUSEUM

Brooklyn Museum is a frontrunner in involving museum audiences in novel ways and challenging the boundaries between museum practices and the public they are aimed at. In 2012, the Museum once again took community engagement to new levels of depth and impact with GO – a project that invited the Brooklyn community of artists and art lovers to participate in curating an exhibition of contemporary art.

From crowd-curation to community engagement

Over the years many people have asked me if we'd do *Click! A Crowd-Curated Exhibition* again – the exhibition we made in 2008, testing the assertion that a diverse crowd is often wiser at making decisions than expert individuals as put forth in James Surowiecki's book *The Wisdom of the Crowds*.[1] My general response has been to say that we wouldn't do a repeat; that our answer would be to take the lessons we learned and do something different. Four years later, our answer was named *GO: a community-curated open studio project*. GO asked Brooklyn-based artists to open their studios, so that the public could take part in deciding which artists to feature in an exhibition opening at Brooklyn Museum in December 2012.

Some things about GO were similar to Click! – namely that they were both Brooklyn-focused initiatives where audience participation resulted in an exhibition at the institution – but this is where the similarities

end. Click! was much more about the "crowd" and, in that, we were specifically looking at the wisdom of a group of people unknown to each other creating something and exploring the end result of that aggregated data. GO was much more people focused; it spotlighted community and aimed to foster personal interaction throughout the process to come to an end result that would be a collaborative effort between artists, the public and the Museum's curatorial staff. The web was used to help connect everyone and drive these ideas home, but it was the people who fueled this project, not the technology and this is a very important distinction.

Inspirations for GO

When Sharon Matt Atkins, Managing Curator of Exhibitions at Brooklyn Museum[2], and I first started discussing the project that would become GO, one of our sources of inspiration was a map that the Brooklyn Arts Council had created of the artists in its Registry. What the BAC map showed was a stunning amount of artists living in Brooklyn and, for us, it became a reason and a symbol for moving forward with our own project.

The Brooklyn Arts Council Registry had a big hand in helping us visualize how many artists were working in Brooklyn, but it was my first visit to ArtPrize[3] that really galvanized my thoughts about what a next-generation community-curated process could be. ArtPrize is a public art competition held every year in Grand Rapids, Michigan. The concept is simple: any artist in the world can bring one work to Grand Rapids and display it in a local venue. Over a two-week period, the community looks at the work and votes for what they like; the winners get a monetary prize.

When you visit ArtPrize, you'll find almost every place opens their doors to show art. Venues are what you would expect – bookstores, cafes, restaurants, galleries, exhibition centers – but there are also surprises – the dog shelter, a hairdressing salon, the Salvation Army, and

local churches all serve as ArtPrize venues. As a visitor, it feels as if the entire city opens its doors and this openness fosters an incredible dialogue. Voting is just one part of the experience and not something every participant does, but art is everywhere and people talk about it. Simply put, I had never seen more quality engagement taking place at any arts-related event, and it left me wondering what would happen if we did something similar in Brooklyn.

After my first visit to ArtPrize in 2010, Sharon and I started discussing what it would mean for the Brooklyn Museum to host a project like this. Knowing how Brooklyn and Grand Rapids differ greatly, we could easily see what worked in one location might not be easily replicated in another, but we also felt that the participation model would need to be adjusted to suit the Museum's goals. How could we create a structure that would be less about voting and more about curation and collaboration? If we managed that task, how could we appropriately scale the project to span an area equivalent to the fourth largest city in the United States? The following year, the two of us travelled to ArtPrize together and we used the trip to really think through some of the participation models and what we thought might be the right fit for Brooklyn; we were also able to talk to ArtPrize staff about these ideas and were struck by how incredibly open they were to our finding inspiration in their project and making modifications that fit Brooklyn.[4]

Digital as enabler, not an end in itself

During GO, artists opened their studios and, as part of the guidelines, had to be present during the open studio weekend to meet with visitors. The public was asked to create profiles online, check in at studios and then nominate artists for inclusion into a group show at the Museum. Curators used the same profile structure to open up the process of creating the resulting exhibition. For the GO project, Brooklyn Museum's web team produced a full-featured website where

people could register as voters, browse artist profiles and save studios to their itinerary. [1]

GO was about getting out into the neighborhoods of Brooklyn and seeing where art making is taking place, talking to artists, discovering spaces in the local communities that participating voters never had access to before. People used web and mobile technology to find the studios, but the project was about actually seeing art – in person, not online – and meeting artists prior to making up one's own mind about it. GO focused on what's happening within the communities of Brooklyn, fostering personal interaction and thinking about the Museum differently; more as a facilitator and a hub for interaction.[5]

[1] Voters visiting an artist's studio in Crown Heights during the GO open studio weekend.

The power of physical presence

If Brooklyn were its own city, it would be the fourth largest in the United States. With a land mass of 73 square miles, 2 and half million people and 67 neighborhoods, managing a borough-wide project like GO was a challenge. Each one of Brooklyn's neighborhoods are different – constituencies are unique, the urban fabric varies widely – in other words, what works in one area may not work in another. A big part of what made GO work was a distributed network of local neighborhood coordinators; 22 coordinators working locally within their neighborhoods to reach artists and their communities. [2]

When interviewing applicants for these positions, we were looking for individuals who had a deep understanding of their neighborhoods, an enthusiasm for the project, and a good handle on outreach methods they thought would work for their areas. For all the social media out there, Brooklyn is still very much a bulletin-board-borough and more often than not these candidates came in with a healthy dose of reality when it came to how far online communications could go; most of them talked about the need for on the ground communication, cafe-to-cafe flyering and person-to-person outreach.[6]

Participation in person

One similarity between ArtPrize and GO is a reliance on people to participate in person, not online. Digital tools may be used to help plan your visit and capture your interest in an artist's work, but the primary focus is seeing art and being physically present to do so. At ArtPrize, participants have to confirm their registration in-person in order to vote. We transferred that feature to GO, urging participants to go to studios and record their visit using the unique number that each artist had been assigned. And they were only able to nominate artists from the list of studios they visited. Both models encouraged visitors to weigh-in on works of art after they had seen them in person.

[2] Prior to the open studio weekend, GO Neighborhood Coordinators held meetups in every neighborhood to answer questions and distribute materials. Meetups, which were held at popular neighborhood venues, also provided social opportunities for artists and voters.

However, the participation model of GO also differed from that of ArtPrize which is based on a straight up/down vote into a top ten, then a re-vote within that subset to determine the top artists. For GO, we asked participants to "check-in" at studios instead of voting right there on the spot. If they wanted to nominate artists for the group show, they needed to "check-in" to at least five studios to be eligible to nominate three from the list of places they visited. In this, we wanted to shift the engagement model to encourage participants to think about making choices, much like our curators have to do on a daily basis. By removing the "vote"

from the event itself, it was our hope that participants would experience the weekend and let their thoughts marinate a bit before finalizing their nominations.

Getting beyond the "like" button

As we developed the concept for GO, many people mistakenly thought that it was all about social media, that a quick "like" would decide what would happen during the open studio weekend. But GO was designed for a specific type of participation that moved beyond "like" button mentality to foster something much deeper.

During GO we asked participants to work pretty hard; they had to register, log their travels by "checking in" with unique codes, and see at least five studios in order to be eligible to nominate three artists. That may seem like a fairly involved and complicated process, but we believed firmly that these thresholds would engender deeper participation. However, it also raised concerns within the community of participating artists. Because of this participation model, we got several comments from artists like this one, "I reviewed what it takes to nominate someone and I really don't think that 'regular' people will actually go through with it all."

But we had good reasons to make people jump through all these hoops: Requiring registration set a high bar, but it gave all participants a way to identify themselves within the scope of the project. In early phases, profiles allowed participants to recognize each other in the studio, but in later stages of the project (nominations, curator visits) it became a tool to continue the dialogue online in a way that retained the feel of those open doors. The electronic "check-in" at studios was another step in the process, but one that went a long way to ensure that works of art were seen in person. Artists' online profiles were just meant as teasers to help visitors get interested in the work and then later remember what they saw, but we didn't want people judging work online where works of art are difficult to represent. Requiring a visit to at least five studios in order to nominate three was another high

bar, but it allowed participants to think more like curators. They had to make a choice, and by removing the nomination process from the open studio weekend, we hoped to encourage participants to be more reflective in their choices. [3]

Basically, participants couldn't just sit at home and vote online; and they couldn't just go to their friend's studio and vote on the spot. We wanted to shift the dialogue from the spontaneous "like" to careful consideration among many options. The like button is easy, and while we didn't think participation in GO should be difficult, we did think we needed to move away from the gold standard Facebook has forced upon us, to something more powerful that served the needs of participants specifically taking part in this project.[7]

[3] Two participants use text messaging and the GO iPhone app to check in to an artist's studio at the Brooklyn Navy Yard during the GO open studio weekend.

We didn't have a Facebook page for GO for many of the same reasons outlined here. During GO, we wanted to encourage participants toward a dialogue that took place in the real world, and most importantly, in the studio. While social sharing was enabled throughout the GO website and we did encourage participants to share GO via their social networks and email lists, we believed that reaching out to friends and supporters and asking them personally to stop by the studio would go a long way toward encouraging studio visitation and fostering deeper connections.

Open studio weekend participation

During the GO open studio weekend, which took place 8-9 September 2012, artists opened their spaces in 46 of Brooklyn's 67 neighborhoods with a scope that was both wide and surprising. We had anticipated studios would be concentrated in high-traffic neighborhoods, but while those areas did have the most registrations, it was not an overwhelming majority of them. The project turned out to facilitate artists who don't have access to the more structured open studios that happen every year in high density neighborhoods. This was not something we expected, but something we were incredibly proud of.

Before the open studio weekend we released our own map showing the 1861 registered artists – across 46 of Brooklyn's 67 neighborhoods – who opened their studios for GO. During the six weeks of artist registration, we watched this map populate with excitement. Did it represent every artist in Brooklyn? Of course not, but for us it presented a powerful visualization showing where much of the art-making is taking place throughout the Borough.

During the GO open studio weekend, we saw incredibly deep participation metrics in just about anything that could be measured. Let's look at the numbers, what they mean, and how we got to the estimated totals.

Statistics about visitation rates for the open studio weekend

- Estimated visitors: 18,000
- Estimated studio visits: 147,000
- Total participating artists: 1,708
- Total neighborhoods with participating artists: 44
- Total registered voters: 10,319
- Total voters who checked in to at least 1 studio: 6,106
- Total voters who checked in to at least 5 studios and are therefore eligible to nominate: 4,929
- Total studio check ins: 48,918
- Average number of studios visited per participant: 8

Among artists surveyed informally throughout the weekend by GO staff, only 1/3 of visitors were visibly using mobile devices to check in to studios or were seen writing down artist codes. Based on this, we took the total voters who checked in to at least 1 studio (6,106) as a baseline and used this to project an estimated attendance of 18,000. The same holds true for studios visited; 48,924 check-ins would correlate to approximately 147,000 studio visits. These estimates, however, are conservative. As one indicator, many families were visiting studios together, but children under the age of 18 could not register per the voter guidelines; as another, we saw groups of people where only one person was recording visitation. Traffic was dispersed throughout the borough, but even double tornado warnings and transportation issues in Brooklyn could not keep people from visiting artists during GO.

From the feedback we heard during the open studio weekend and comments on the website in the days and weeks after, a few things were ringing loud and clear. Many people reported that visitors to their studios were unlike those for other open studio events; visitors were engaged and focused. Artist feedback indicated a high level of discussion happening in the studio. Most artists said there was a mix of traffic – 30% invited friends, 70% new visitors. This mix changed from neighborhood to neighborhood, but overall we heard artists gained a new audience for their work.

[4] Voters and artists coming together to view the featured artists in the GO exhibition, which opened at the Brooklyn Museum on 1 December, 2012.

Celebrating creativity and community

GO opened on a *Target First Saturday*, a popular monthly event at Brooklyn Museum with free admission to the current exhibitions and programs. [4] Given the democratic nature of the project, we thought this would be a fitting way to get the show off to the right start. The 1,708 artists who had participated in the open studio weekend had – through the dedicated activity of the Brooklyn community – been narrowed down

to the top 10 nominated artists. Subsequently, two Brooklyn Museum curators had visited each of these artists in their studios and through a tough selection process chosen 5 of them to exhibit at the Museum.[8] While the resulting exhibition could only show works by 5 artists, it was just as much staged as an event to bring together the entire community that had participated in GO process – all the artists who had opened their studios, all the Brooklyners that had registered, checked in, met with and nominated artists, all the volunteers that had helped coordinate the borough-wide project – to celebrate the tremendous creativity and engagement taking place on the Brooklyn art scene.

This article is a rewritten version of Shelley Bernstein's blogposts in connection with the GO project, originally published on www.brooklynmuseum.org/community/blogosphere *and edited for Sharing is Caring in collaboration with Merete Sanderhoff.*

---

1 https://www.brooklynmuseum.org/exhibitions/click/

2 http://www.brooklynmuseum.org/about/curators/atkins.php

3 http://www.artprize.org/

4 The staff at ArtPrize were incredibly helpful throughout the process of conceptualizing GO. They went so far as to discuss what worked for them and what didn't. We talked extensively about their data metrics and we were able to take those lessons and insights and adapt them for our own participation model. After our open studio weekend, we shared our lessons learned back to ArtPrize, so they, in turn, could learn from our experiences.

5 Deutsche Bank supported GO through its Art & Technology program. In their own participation, they wanted to support an initiative that thought broadly about community and sought to enable all residents of Brooklyn access to both the process and the technology that would be used throughout. Read more about how we achieved this thanks to local partnerships: http://gobrooklynart.tumblr.com/post/29552893069/partnering-with-nycha-for-go

6 Many of the coordinators are artist themselves who, because they were working on GO, could not open their own studios during our open studio weekend; all of

them felt the project was so important that they wanted to support other artists by working on it rather than showing in it.

7 This topic is also treated by Valtysson & Holdgaard in their article p. 221 ff.

8 Read much more about the curatorial process behind choosing the 5 artists for the GO exhibition in Sharon Matt Atkins' blogposts, for instance: http://www.brooklynmuseum.org/community/blogosphere/2012/11/28/making-choices-to-create-an-exhibition/ Related posts by Sharon can be found following the links at the bottom of the webpage.

Sharing authority

User-generated images as future cultural heritage?

SARAH GIERSING, RESEARCH LIBRARIAN AT
THE NATIONAL MUSEUM OF PHOTOGRAPHY,
THE ROYAL LIBRARY (DENMARK)

User participation has become an important way to enrich the knowledge, collections, and experiences museums have to offer, but working with user generated content also entails challenges. The Museum of Copenhagen has developed an interactive installation called The WALL which invites people to explore the city's history and share their own images of what urban life looks like today. It has been a great success, while at the same time raising complex questions: Should the users' contributions be included in the museum's collections, and how should the museum handle rights issues of thousands of images largely generated by anonymous users?

Sharing is about more than ensuring that museum collections are accessible. It is about sharing authority with the users; the authority to read, interpret, and improve these collections. Today, many museums employ user involvement in their education and dissemination activities, but only few invite users to enter into the realms of other core areas such as recording and collection activities. This means that user participation only rarely creates a lasting change in museums and their collections.

Since 2010, the Museum of Copenhagen has featured a unique platform for education and interaction in the city space: the WALL. Users have

uploaded many thousands of pictures to the WALL, and these pictures help expand the museum's presentation of the city's cultural heritage, adding a plethora of new perspectives. But what will happen to the users' pictures when the project reaches the end of its cycle?

The WALL as platform

The WALL is a digital, interactive outdoor exhibition that is regularly moved to different locations in Copenhagen over the course of a four-year period. The WALL consists of a customised shipping container fitted with four large touch screens that provide access to the contents of an open database. At present, this database contains approximately 20,000 photos and video clips of Copenhagen taken from the museum's own collections and from user profiles. On the screens, all passersby can

[1] The WALL by Queen Louise's Bridge, Copenhagen

browse and explore the many pictures through an interface designed as a dreamlike collage depiction of the city. This interface provides users with the opportunity to navigate the materials in an intuitive fashion, pursuing their own individual routes across the city's different periods and topographies. The WALL's virtual universe reflects the city as a personal experience – users decide for themselves whether they wish to visit their childhood street, explore archaeological excavations in the city, or go see their favourite animals at the zoo.[1] [1]

The WALL is a platform where interpreting the city's cultural heritage becomes a communal task. In addition to exploring the many images, users can also comment on the materials and add their own content to the database. The users' pictures are presented on an equal footing with images from the museum collections. No editing or approval process precedes their publication on the WALL. The images must be linked to the city of Copenhagen, but other than that no firm criteria are imposed on their contents; users are free to choose what they wish to share. Since the WALL was first launched in 2010, it has received more than 6,000 user-generated images. Unsurprisingly, the users' images are very varied – and they are usually also quite different from the museum's own collection of images.

The Museum of Copenhagen's images

The image archive at the Museum of Copenhagen holds more than 300,000 pictures illustrating the history and topography of Copenhagen. In theory. this collection should encompass the city's history right up to the present day, but the vast majority of pictures in the archives are from the period 1880 to 1950. The photographs mainly show buildings, streets, and monuments – and, to some extent, important events – from the city.

The pictures in the archives were taken by professional photographers. Later, they were selected and curated by a member of the museum staff with particular expertise on the city's development over time and the changes it has undergone. As part of that process the photographs were imbued with a special authority as truth bearing documents; they were

reaffirmed as materials that would show posterity what the city used to look like. But the city depicted in these black-and-white photographs – the information they offer us today – can largely be reduced to the city's physical structures; to its paving, its asphalt, and its bricks.

Users' own images

Most of the images uploaded by users also depict the public urban space. But they do so in different ways from the ones we are used to seeing at the museum. The user-generated images are almost all taken by amateurs, and most of them represent contemporary life.

The users' images have been taken and shared as part of today's digital culture where documenting your everyday life has become standard practice. That practice can be viewed as a radical democratisation of the photograph as a medium; a new departure after the so-called Kodak era where most amateur snapshots were taken in connection with special events and ended up in the family photo album.[2] Today, almost everyone in the Western world take photographs of a much wider field of activities, and sharing images with a broad circle of friends – or even strangers – has become a widespread practice. This cultural development is reflected on the WALL.

The many images of street art and graffiti uploaded to the WALL showcases our contemporary digital culture. Here, digitally created photographs are taken and shared at the very moment the event takes place before the camera, and many of the users' images document ephemeral and transient events in the city. Illegal ornamentation of the public space is a controversial issue and is hotly debated on the WALL. However, there can be no doubt that it is a significant cultural trend in modern cities. Nevertheless, the Museum of Copenhagen has not yet allocated resources to documenting and collecting examples of graffiti. Now, with the WALL as their platform, public users are well on their way to performing that task themselves.

The topography of belonging

Users' gazes often capture motifs that can also be found among the historical photographs. But because the users' images reflect citizens' own perspectives on the city, they sometime act as corrections and supplements to the museum's collections. For example, the Museum of Copenhagen has posted images on the WALL of homeless people taken by police photographers around 1900. These pictures show the authorities' records of homeless people and offer a glaring contrast to the contemporary images taken by a present-day homeless person. Similarly, an interesting dialogue arises between historical press photos of the great unemployment protest marches of the 1930's and the pictures taken by a partcipant in a present-day demonstration. The users' images offer insider views of the city. They help chart Copenhagen as it appears in the eyes of Copenhageners. A kind of topography of belonging that shows what it is like to have Copenhagen as your home today.[3]

Worth sharing, worth saving?

User-generated content imbues the existing collections with new energy and life. These images offer glimpses into the personal experience of living in the city today. And they serve as supplements and errata to the narratives already found in the museum archives. But of course not all user images are equally interesting to all people; a truism that also applies to the historic images.

It often happens that the relevance of individual images is challenged on the WALL. The issue of what merits sharing is discussed in the users' comments. Consensus is rarely reached, but the discussion is important, for it makes the process of defining and interpreting our cultural heritage visible, and the representation it engenders becomes collaborative and dialogic by nature.

The WALL has been very successful as a tool for multivocal communication. But perhaps it can also serve as a tool for the museum's collecting activities? If the user-generated content is preserved it can pass on infor-

mation about present-day Copenhagen to future generations; information that includes contrasting images and several different perspectives. The material also documents the process of selection and illustrates how collection and documentation is always based in specific points of view. Perhaps the WALL, considered as a tool for collection, might point in the direction of a more democratic production of cultural heritage – one where tenured experts are not the only ones with the authority to decide what is worth collecting and preserving? [2]

Impediments to collecting

The Museum of Copenhagen wishes to work closely with the citizens of Copenhagen. The museum also wishes to expand the collections with more content capable of communicating the citizens' personal stories about life in Copenhagen in the early 21st century. That is why it seems an obvious choice to collect the users' images from the WALL.

Nevertheless, we often come up against a range of practical impediments and barriers when it comes to integrating users' images in the museum collections. All of these are associated with the rapid developments seen within digital culture these years. The main challenges have to do with metadata, rights, and formats.

The WALL was designed to be a visual medium where the written language was to be given as little weight as possible in order to avoid any language barriers. Because of this, we do not require users to attach long texts to their uploaded pictures. However, this also means that the metadata associated with each user-uploaded photograph is quite rudimentary. We often only have the photograph itself, a few tags, and a brief title, and this information does not always reveal much about the user's intention with uploading that particular photo. When collecting and recording material such metadata falls rather short of the mark because it tells us very little about the provenance and context of the materials. This can make it difficult for future generations to comprehend and rediscover the material.

The issue of rights is another complication when collecting user-generated content. When users upload their pictures to the WALL, they automatically accept that their pictures can be used by the museum while they themselves retain full copyright. In order to ensure the smoothest and simplest upload process possible, the WALL does not integrate a particular licensing system such as Creative Commons.[4] This means that in practice the user-generated material belongs to a large group of different individuals, and this will make it quite difficult to handle for future archivists and audiences. The museum cannot verify whether users actually hold the rights to the images, and it does not have the right to pass on the images to be used by third parties. Also, the users have no influence on the obligation of the museum to ensure that future generations can access the materials.

Finally, there is the question of technical quality and preservation. In order to ensure high speed and usability, all the photographs uploaded to the database are reformatted and compressed to make the files more manageable in size. However, this reduces image resolutions, and original data are lost. Even though it seems likely that the format itself (JPEG) will remain viable and readable for many years to come, the upload process

[2] The WALL in Frederiksberg, Copenhagen.

distorts the quality and originality of the photographs. Of course, this imposes certain limits on how the materials can be used in the future.

The difference between collecting and visitor experience

The technical issues that impede the inclusion of user generated images in the museum's collection reflect the difference between *creating visitor experience* and *collecting*. Like so many other user-involving activities, the WALL was designed to place its main emphasis on the sharing of knowledge rather than the gathering of documentation. The project was planned in order to create a good user experience that made immediate sense to audiences. However, the long-term issues pertaining to collecting, recording, and preserving heritage objects were not accommodated to the same extent.

It is likely that the years to come will see many more projects that focus on user participation and user-generated content. We can only hope, then, that museums will become better at bridging the gap between the different premises applying to dissemination and collecting practices. Doing so would allow initiatives like the WALL to create rich and multi-voiced experiences in the here and now – while also ensuring that the users' contributions will have a lasting impact on the shared cultural heritage of the future.

---

1 An overview of the design and concept of the WALL can be found in Jette Sandahl et al.: *Taking the Museum to the Streets*, paper presented at Museums and the Web 2011: http://www.museumsandtheweb.com/mw2011/papers/taking_the_museum_to_the_streets

2 For a survey of the changing roles of vernacular photography, see Risto Sarvas, *From Snapshots to Social Media – the Changing Picture of Domestic Photography*, London 2011.

3 All images – both users' and the museum's – can be viewed on the website of the WALL at http://www.copenhagen.dk/en

4 Read more about the CC licenses in Martin von Haller Grønbæk's article p. 141 ff.

Museums and cultural institutions as spaces for Cultural Citizenship

NANA BERNHARDT, HEAD OF SCHOOL PROGRAMMES, SMK

LISE SATTRUP, PHD FELLOW, RUC AND SMK

Cultural citizenship is about opening up to multiple voices and participation, and sharing the stage, ownership, and authority with the users. In this brief essay, Lise and Nana draw out the principal lines of the extensive and ambitious project "Museums and cultural institutions as spaces for Cultural Citizenship" and provide two examples of exhibitions within the project that are founded on dialogue, inclusion of differing voices, and listening to what the users have to say.

How can museums and cultural institutions make a stronger impact as democratic educational institutions; as places where knowledge is not just something that is presented and put at the disposal of visitors, but actually created through interaction between museums and users? How can active participation, self-reflection, and multivoicedness be integrated into the museum's practice and potentially provide a space for cultural citizenship? These are just some of the questions that infuse the project "Museums and cultural institutions as spaces for cultural citizenship". In what follows, we will outline the project's overall objective and organisation, and expand on two examples from our field of study – an exhibition at The Museum of Copenhagen and a teaching session at Statens Museum for Kunst.

Project objective and organisation

Ten museums and cultural institutions explore how they can contribute to cultural citizenship. The participating institutions cover a wide variety of collection and research areas from cultural history to art history and music, from neoclassical sculpture to installation art. We base our understanding of cultural citizenship on the approach taken by professor of sociology Gerard Delanty, who regards cultural citizenship as a learning process. Delanty points out that "the power to name, create meaning, construct personal biographies and narratives by gaining control over the flow of information, goods and cultural processes is an important dimension of citizenship as an active process."[1]

The participating institutions work with their exhibitions and school programs to explore how they can create inclusive learning processes while taking their point of departure in the concepts of 'participation', 'multivoicedness', and 'self-reflection'. The concept of multivoicedness is based on the thinking of the Russian linguist and cultural theoretician Mikhail Bakhtin who says, "truth is not born nor is it to be found inside the head of an individual person, it is born between people collectively searching for truth, in the process of their dialogic interaction."[2] He is interested in how meaning is constructed where many voices confront each other. The wish to create space and scope for the many voices is also reflected in the methods of co-operation applied in the project. It can be seen in the effort to improve institutional collaboration with users, and in the close collaboration between curators and educators. Here, we will briefly outline two examples from the project that address the co-production of meaning and knowledge in different ways.

1. The past beneath us – The Museum of Copenhagen

The exhibition is based on finds from recent archaeological excavations in Copenhagen. The Museum of Copenhagen has developed the exhibition together with a wide range of Copenhageners; a collaboration that encompassed the objects themselves as well as the way they are presented to the public. The museum invited users to take part in selecting objects for display. And in the exhibition, the objects are not just presented by

archaeologists and historians. For example, a hairdresser writes about a wig and a kindergarten child tells us about a toy spear. This means that each object is accompanied by two different written interpretations.

A piece of furniture designed for the exhibition invites the users to touch, describe, and draw objects, and their contributions become new voices added to the museum space. [1] Three 9th graders write the following: "We believe that object no. 32, which an archaeologist thinks is a book cover, might be a leather purse or a container for glasses; we think so because it looks more like a wallet, and it would be more useful to make

[1] A piece of furniture in the exhibition The past beneath us at Museum of Copenhagen, which invites users to leave a note or a trace – in the shape of drawings or written comments to selected objects on display. The objects may also be touched.

a wallet or a case than a leather book cover."[3] The example shows that the girls relate directly to object no. 32 and to the archaeologists' interpretation of the object, as a point of departure for actively constructing their own meaning.

2. "The Golden Age and national identity – a photographic workshop" – Statens Museum for Kunst

"What can you say about my identity?" That is how the museum educator at SMK begins a teaching session for a group of 9th graders; a teaching programme that aims at challenging and adding new nuances to the concept of 'national identity'. The sessions will posit questions such as "What is patriotism? What are national sentiments? How has art been used to co-create the notion about something uniquely Danish? How do we decode and meet the world around us?" Over the course of the programme, the students' voices are juxtaposed with those presented by the museum educator, thereby creating space for the many narratives. Some of the tools used include conversations about artworks and exercises in which the students take part as active generators of meaning – for example by producing photographs on the subject of national identity. Multivoicedness is also encouraged by considering Danish Golden Age art and 19th century notions about what is 'uniquely Danish' together with examples of artworks from our own era that challenge and question national identity. By providing a space for students where they can construct their own interpretations in a museum space, such activities may invite the construction of identity and narratives, something that Delanty points to as a crucial aspect of cultural citizenship. The book *Dialogue-Based Teaching. The Art Museum as a Learning Space* presents more examples of teaching sessions based on the three concepts 'participation', 'multivoicedness', and 'self-reflection'.[4]

The two cases mentioned here point to how meaning is constructed through a multi-voiced dialogue. We believe that museums and cultural institutions already play an important role in democratic education and the formation of identity, and that they have the potential to take on even greater significance if we as museums become better at not just

sharing knowledge, but also at creating spaces for *co-production* and inclusive learning processes.

The collaborative project is staged by ARKEN Museum of Modern Art, Designmuseum Danmark, J.F. Willumsens Museum, the Museum of Copenhagen, KØS Museum of Art in Public Spaces, the National Museum of Denmark, Nikolaj Copenhagen Contemporary Art Center, Statens Museum for Kunst, Thorvaldsens Museum, and the Education Centre for Music & Theatre in co-operation with the Royal Danish Theatre. The project is funded by the Danish Agency for Culture.

---

1 Gerard Delanty, "Citizenship as a learning process", *International Journal of Lifelong Education* 22:6, 2003, p. 603.

2 Mikhail M. Bakhtin, *Problems of Dostoevsky's Poetics*, University of Minnesota Press, 1984.

3 Marie-Louise, Therese, Rikke 9.A, 23 January 2013. The quote is translated by the authors.

4 Olga Dysthe, Nana Bernhardt and Line Esbjørn, *Dialogue-Based Teaching. The Art Museum as a Learning Space*. Unge Pædagoger, 2012.

The future of museums is about attitude, not technology

JASPER VISSER, INDEPENDENT
CONSULTANT, INSPIRED BY COFFEE

In an age where digital media often set the agenda in the cultural heritage sector, Jasper calls for sober-minded deliberation. He has run a series of digital strategy workshops, but the fundamental advice he offers museums is to not get carried away by all the sparkling new technologies. What is essential is to stage and display their collections and knowledge in ways that are truly relevant and engaging to people. To do this, however, they need to understand how digital media transform society and how people think.

Introduction

New technologies have always influenced society. From the printing press which helped initiate the reformation to the industrial revolution and now the digital revolution.[1] Society influences technology as well. Take for instance differences in language, as exemplified by Michael Anti in a 2011 TED talk: "One Chinese tweet is equal to 3.5 English tweets. (…) Because of this, the Chinese really regard this microblogging as a media, not only a headline to media."[2] The technologies of the digital revolution change our societies as much as our societies influence the development and use of such technologies.

Before tinkering with new technologies, every organisation grounded in society should understand their implications on society and vice versa.

Technology that is implemented naively will amplify existing inequalities.[3] This is also true for museums. Ramesh Srinivasan describes, for instance, how differences between museum ontologies and those of source communities limit the diversity of cultures and voices that are represented by collections. A 'naive' online collection might actually alienate people from an institution, rather than open the institution up to more and more diverse communities.

I believe that if museums were to take a step back from implementing the latest technologies just to be on the bandwagon ("We have to be on Facebook!") and reflected on the relationship between technology and society and its influence on the role of museums, new opportunities would become clear that will help museums to be meaningful in the 21st century. Some of these opportunities I will describe in this paper.

The head of the long tail

A first opportunity is the abundance of information contemporary society is faced with. A study by Gantz and Reinsel shows that the amount of information in the world more than doubles every two year.[4] Such numbers still exclude the two thirds of the world population without internet access. One can only imagine what will happen to the amount of information easily accessible anywhere when these people join the digital age.

For years, Chris Anderson's book *The Long Tail* (2006) has given people a reason to put as much information online as possible. Unlike in the physical world, shelf and wall space are nearly free and unlimited online. Google will open up even the most marginal content (the long tail) to people who are potentially interested. Research by Anita Elberse has shown reality is more complicated. The vast majority of people will only access the most popular information (the head). For instance the top 10% of songs on Rhapsody accounts for 78% of all plays. The top 1% for 32% of plays.[5] The head gets most attention and only highly enthusiastic geeks and researchers

ever venture into the long tail. The long tail might even scare people off. Too much choice is frightening, or as Barry Schwartz says in a 2009 TED talk: "With so many options to choose from, people find it very difficult to choose at all."

In the 2012 summer edition of Wired UK, Neal Pollack explains how finding meaning in the myriad of information is the new obsession in technology. Museum curators and researchers have been doing so for years: sorted through thousands of objects to build exhibitions and do research that matters. In the digital age, this role gets renewed importance, now that curators do not only need to sort through their own collection to find the 'head', but also through the information produced by non-professionals on platforms like Wikipedia and elsewhere.

Museums can take a leading role in making sense of the abundance of information in today's world and making the best more accessible. I believe that such curatorial processes will be much more valuable to virtually everyone, than continuing to digitise ever more of our collections in the hope some geek or researcher, one day, will bump into them via Google.

Factual stories that resonate

It will soon not be enough simply to present the best. Competition for people's limited time is fierce and will likely only increase. Museums need more than ever to *attract* audiences to their work.

Intel's *Museum of Me*[6] was a useful project for people interested in the future of museums. For one, it proved that museums are appealing enough to market a technology product. Also it proved that the internet generation can be encouraged to visit a museum, as long as the museum tells a story that resonates with them. Real world museums such as the Zagreb Museum of Broken Relationships prove the same thing.[7] [1]

In her book *Resonate* (2010), Nancy Duarte explains how to tell a story that resonates with its audience. One of the lessons is to make the audience the hero of the story: whatever you tell should be about them. Quite often, museum collections are related to the audience, although it might not always be clear why or how. Other suggestions Duarte gives are the use of visuals, emotions and development. A good story is factual, but also emotional and interactive and uses mixed media to keep people's attention.

In the digital age there seems to be a divide between factual and more emotional stories. Wikipedia articles are factual, YouTube cat videos emotional. I believe there's room in the middle for museums. Projects like Open Culture and Crash Course pioneer by telling stories that are both factual and engaging enough to resonate with their audience.[8] Museum professionals have the skills and intelligence to take curated information and turn it into stories that resonate.

[1] Example of a resonating story. The Museum of Broken Relationships, Zagreb.

Online learning and 21st century skills

A third opportunity is the rise of online education and the increasing focus on 21st century skills.

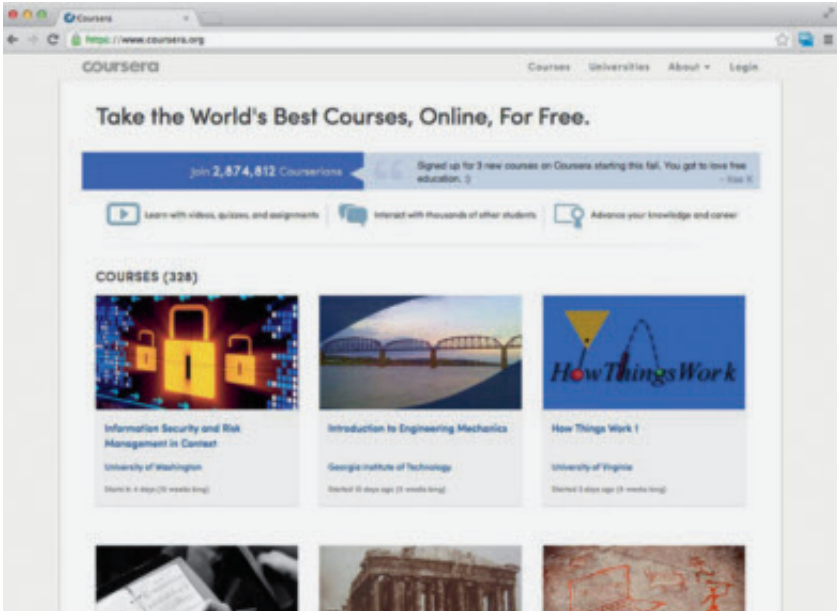
Coursera is a free online education platform. It is successful with over 2.5 million users and is enhancing academic recognition of the skills people acquire online.[9] What makes Coursera successful, in part, is that it combines the best elements of traditional education with the new opportunities technology create. For instance, regular traditional tests keep students involved while at the same time, they can pause and "rewind" what their teachers say at will – as Daphne Koller, one of the founders, explains.[10]

It is not unlikely that online learning will replace a significant part of the curriculum of many schools and universities in the near future. This means some of the traditional aspects of education in society will change. For instance: where will people meet to watch online lectures and where will they learn skills such as global awareness and civic literacy?

As the Institute for Museum and Library Studies states in their 2009 publication *Museums, Libraries, and 21st Century Skills* museums can, and should, play a pivotal role in the education of communities. A museum should look at education as a constant in people's digital and physical lives and as a strong tool to make the connection from online to onsite. Even more than to traditional education, museums can play a pivotal role as content providers and service facilitators to online education. [2]

Systems for direct value exchange

By taking a more proactive role in the above, museums obviously will add more direct value to the lives of people. The last and maybe most interesting trend, therefore, is the opportunity to establish more direct systems for value exchange to support the expectations of the audience.



[2] Coursera.

One of the greatest clichés of the digital age is that is has democratised the relationship between organisations and individuals. Although critics warn us not to overestimate the liberating effects of digital media, it is undeniably true that if an organisation really wants to connect directly with its audience and interact with them, the tools are there.[11] This means information, opinions and creativity can flow more freely than before the digital age.

The same applies to value (money). More direct systems of funding such as crowdfunding can partly replace traditional funding models. For example, according to Kickstarter 10% of all movies at the Sundance independent film festival in 2012 were crowdfunded.[12]

Direct value exchange means that an individual and an organisation directly negotiate with each other, often via an online platform. This

means that each deal should be clear and beneficial to both parties involved,- for instance an exhibition catalogue and four tickets at discount rate in exchange for the funds to build the exhibition.

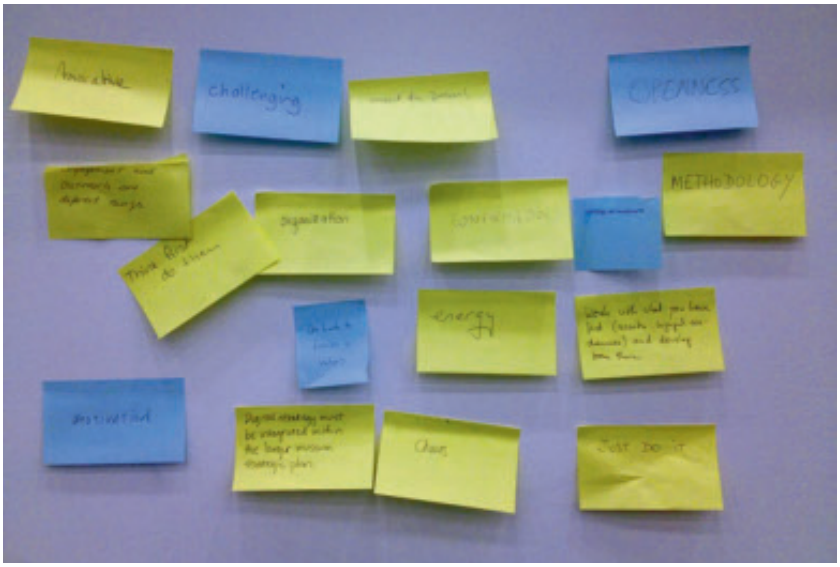
By pioneering with such direct value exchange systems, museums will not only find new sources of revenue, but also build supporting communities that can clearly identify the added value of the institution to society, even before society requires it in times of financial cuts and dwindling interest in heritage and the arts.

The right attitude

The four trends I've outlined above are by no means exhaustive. Having worked with close to a hundred (cultural) institutions in recent years, I know that the great diversity in museums and societies means there are different opportunities everywhere. The overarching idea is that by taking a step back from contemporary trends in technology and focusing on the wider trends at the intersection of society and technology, in my experience museums can make much better use of their resources and better address long term strategic objectives.

I am aware that I've left the important next question unanswered: how? In the discussions at Sharing is Caring 2012, some elements of the how-question have been answered: human resource management, project management, leadership. Without going into detail on the how-question (which would take at least another 2,000 words), I think it suffices to say that the same conclusion applies here. Take a step back and reflect on the larger trends in society and how technology can play a role in them.

In the end, I strongly believe that with the right attitude museums can play a pivotal role in tomorrow's societies, regardless of the changes in technology that no doubt will occur. By focusing on some trends I have intended to present the wider idea that what is needed is an attitude of inquisitive pro-activeness, where the consequence of trends rather than the trends themselves are the main focus of strategy and action. [3]



[3] Post-its after a strategy session about the future of museums.

---

1 See for instance Das and Kolack, 2007.
2 http://www.ted.com/talks/michael_anti_behind_the_great_firewall_of_china.html
3 Toyama, 2011.
4 http://www.emc.com/collateral/analyst-reports/idc-extracting-value-from-chaos-ar.pdf
5 Get a different point of view on 'the long tail' in Sanderhoff's article p. 48 ff.
6 http://www.intel.com/museumofme/r/index.htm
7 http://brokenships.com/
8 See www.openculture.com og http://www.youtube.com/user/crashcourse
9 See https://www.coursera.org/ and Korn, 2013.
10 http://www.ted.com/talks/daphne_koller_what_we_re_learning_from_online_education.html
11 See for instance Morozov, 2011.
12 http://www.kickstarter.com/year/2012#sundance

References

Chris Anderson, The Long Tail, Revised and Updated Edition: Why the Future of Business is Selling Less of More, Hyperion, 2008

Michael Anti, Behind the Great Firewall of China, updated July 2012, consulted 27 February 2013, http://www.ted.com/talks/michael_anti_behind_the_great_firewall_of_china.html

Mitra Das & Shirley Kolack, Technology, Values and Society: Social Forces in Technological Change Revised Edition, Peter Lang Publishing, 2007

Nancy Duarte, Resonate: Present Visual Stories that Transform Audiences, Wiley, 2010

Anita Elberse, Should You Invest in the Long Tail? Harvard Business Review, July 2008

John Gantz & David Reinsel, Extracting Value from Chaos, consulted 24 February 2013, http://www.emc.com/collateral/analyst-reports/idc-extracting-value-from-chaos-ar.pdf

Institute of Museum and Library Services, Museums, Libraries, and 21st Century Skills, Institute of Museum and Library Services, 2009

Daphne Koller, What we're learning from online education, updated August 2012, consulted 4 March 2013, http://www.ted.com/talks/daphne_koller_what_we_re_learning_from_online_education.html

Melissa Korn, Big MOOC Coursera Moves Closer to Academic Acceptance, updated 7 February 2013, consulted 27 February 2013, http://online.wsj.com/article/SB10001424127887324906004578288341039095024.html

Neal Pollack, The exabyte revolution, David Rowan (Editor in Chief), Wired UK, Vol. 8, 2012

Barry Schwartz, The Paradox of Choice, updated September 2006, consulted 24 February 2013, http://www.ted.com/talks/barry_schwartz_on_the_paradox_of_choice.html

Ramesh Srinivasan, Re-thinking the cultural codes of new media: The question concerning ontology, New Media & Society, Vol. 15, no. 2, pp. 203-223

The best of Kickstarter 2012, consulted 4 March 2013, http://www.kickstarter.com/year/2012#sundance

Kentaro Toyama, Technology as amplifier in international development, ACM New York, Proceedings of the 2011 iConference, 2011, pp. 75-82

Perspectives on participation in social media

NANNA HOLDGAARD, PHD FELLOW, IT
UNIVERSITY OF COPENHAGEN

BJARKI VALTYSSON, ASSOCIATE PROFESSOR,
UNIVERSITY OF COPENHAGEN

Social media are sometimes perceived as the answer to how museums can involve their users: Create a Facebook page and let users like and comment the museum's work and exhibitions, then you have user participation. Bjarki and Nanna take a critical stance toward calling this kind of effortless action 'participation', and demand that museums truly embrace people's knowledge and creativity. This is key to deep user engagement.

Produsers, prosumers, creative audience, collaborators… Social media users of today have many labels. What these neologisms all have in common is the notion that users are notoriously active, socially connected, and enthusiastically engaged in contributing to the *participatory culture* by sharing, creating and remixing content online. This utopian perception of social media as mechanisms that transform, emancipate, and empower users into participating and engaged civil actors has also found its way to cultural state-funded institutions such as museums.

Within recent years social media and participation have become inseparable buzzwords, and advocates have had very high hopes to the democratic potential of social media, and to the rise and empowerment of other voices in an institutionalised environment which these media are expected to bring about.

How museums stage their Facebook participation

As the largest and most influential social media platform in Denmark, Facebook has the conspicuous role as the preferred platform among Danish museums. Expectations to Facebook's potential for user involvement and participation have been high, and a large part of Danish museums have a Facebook presence.[1]

In this context, Facebook is regarded as a *digital public sphere* – a digital arena, or a space for communication in which communicative actions take place. As any public sphere, Facebook facilitates and encourages certain participatory behaviours and interactions. And when discussing museum participation on Facebook, it is of much importance to consider the *affordances* of the platform that frames these behaviours and interactions. But what does the interface of Facebook afford and what do Danish museums encourage and allow users of their Facebook pages to do? [1]

The general Danish museum Facebook page allows and encourages users to read, comment and question, tag, and share museum content. Less common are museum Facebook pages where users are encouraged or inspired to upload their own content. As museums have different strategic intentions and communicative skills on Facebook, and as the terms of participation are conditioned by Facebook itself, user involvement and participation can be framed as manipulation. This is particularly the case when we take a further look at Facebook's data use policy and statement of rights and responsibilities. Here, and contrary to the emancipative promise of the 'participatory web', Facebook basically sets up a specific media environment with specific terms and rules. This means that users fill Facebook with content, while Facebook runs away with the financial profits.

Even though this is surely the case, the processes generated by users on Facebook also have emancipatory potentials. When analysed from the viewpoint of motivation and use, views on advertising and ownership of uploaded material, and how the platform affects distinction between

[1] "Is sharing caring?" This question was posed by Bjarki Valtysson and Nanna Holdgaard in their ignite talk at Sharing is Caring 2012.

public and private, users maintain that they gain more from Facebook than Facebook gains from them. Indeed, users maintain to 'tame' the affordances of Facebook and make them bend to their will rather than the opposite.[2]

Participation?

From a Habermasian perspective, *participation of the public* is central to the ideal of the public sphere. Furthermore, this kind of participation requires engagement and is a concept associated with *serious involvement* rather than superficial consumption.[3] Indeed, as Peter Dahlgren notes, participation presupposes engagement. But in order for this to occur, there has to be a connection to *doable activities*. If this does not occur, engagement dissipates.[4] The networked media environments,

often associated with social media, do provide different channels for 'doable activities' as they condition the participative potentials of users that contribute to these environments. But many social media platforms only provide means for effortless participation manoeuvres. They do not facilitate serious involvement. An example of this is the *like* function on Facebook.[5]

Indeed, a study from 2012 of state-owned and state-subsidised museums in Denmark has shown that the typical user interaction on Danish museum Facebook pages primarily consists of *likes*.

According to Facebook guidelines, a *like* is to give positive feedback and make connections. In that sense, a *like* is an affirmative statement or expression indicating acknowledgement, interest, support, affiliation or similar. However, is *liking* something the same as *participation*? Optimistic voices such as media scholar Henry Jenkins and Creative Commons founder Lawrence Lessig have both emphasised that it is not important *what* we say or do, but rather *that* we say and do.[6] The act of doing – participating as a process – is emphasised, rather than the outcome.

At the other end of the spectrum, critics such as Andrew Keen have questioned and criticized how knowledge and value of professional expertise – from institutions like museums – is reduced and will be extinguished if the institutions are replaced by amateurish creations and comments.[7] Other critics have argued that what appears as democratizing processes are nothing more than commercialisation and commodification of the users' creativity.[8]

Either way, it would be advisable for cultural institutions like museums to reconsider what kind of participation they want to stage within media environments such as Facebook, and the participative depths which they expect of their users, consumers, *produsers*, *prosumers*, collaborators, creative audience…

1 By August 2013, 129 of Danish state-owned and state-subsidised museums had a Facebook presence.
2 Valtysson, 2012.
3 Habermas, 1989, p. 166.
4 Dahlgren, 2009.
5 See also Shelley Bernstein's deliberations on this topic p. 192-94.
6 Jenkins, 2008; Lessig, 2008.
7 Keen, 2007.
8 Fuchs, 2010.

References

Andrew Keen, The cult of the amateur: how today's internet is killing our culture, Doubleday/Currency, 2007.

Bjarki Valtysson, Facebook as a Digital Public Sphere: Processes of Colonization and Emancipation, *tripleC: Communication, Capitalism & Critique*, *10*(1), 2012.

Christian Fuchs, Labor in Informational Capitalism and on the Internet. *The Information Society*, *26*(3), 2010, s. 179-196.

Henry Jenkins, *Convergence Culture: Where Old and New Media Collide* (Updated and with a new afterword.), New York University Press, 2008.

Jürgen Habermas, *The Structural Transformation of the Public Sphere: An Inquiry Into a Category of Bourgeois Society*, MIT Press, 1989.

Lawrence Lessig, *Remix: making art and commerce thrive in the hybrid economy*, Penguin Press, 2008.

Peter Dahlgren, *Media and Political Engagement: Citizens, Communication, and Democracy*, Cambridge University Press, 2009.

Meeting the visitor

Dissemination of mobile guides at the museum front desk

DITTE LAURSEN, SENIOR RESEARCHER AT THE STATE MEDIA ARCHIVE, STATE LIBRARY OF DENMARK

Museums are eager to share their knowledge and passion about the objects on display. Too much information in the galleries, however, can be a disturbance. Mobile guides are a smart way to offer information that enriches the individual experience without interrupting other visitors. But how do museums encourage visitors to take up the new digital devices? Ditte has scrutinized the interaction between visitor and front desk staff offering a mobile guide. Her research indicates that the biggest challenge of working with digital education lies not necessarily in the production, but in the distribution.

Introduction

Over the years, the benefits of mobile devices in museums have been explored in a number of papers.[1] Yet studies show that encouraging visitors to take up mobile interpretation is the largest challenge in implementing mobile projects in museums.[2] One of the keys to encouraging visitors to use mobile interpretation – one that has received little attention so far – is the distribution and dissemination of the guides.

Based on 18 hours of video recordings at the museum's front desk, this paper addresses the interaction between front desk assistants and visitors about a possible iPod touch loan. The possible loan is treated in an

offering sequence, which typically happens after tickets and money have been exchanged. The offering sequence is a particularly crucial phase where the front desk assistant and the visitor cooperate in matching the museum's offer and the visitor's needs. A closer look at the interactional features of this sequence can contribute to a better understanding of the nature of the service encounter and the challenges in supporting different kinds of visitors around new technologies.

The data for this study was gathered in November 2011 at SMK, the national gallery of Denmark. The museum had recently launched an audio guide application for a temporary exhibition, and visitors could borrow an iPod touch at the museum's front desk.

Front desk encounters

There are no studies of the distribution and dissemination of visitor audio guides at the front desk of museums known to the author. However, the fundamentally social and interactional basis of the service encounter has been studied outside the museum literature in a wide range of real-life settings. The service encounter can be seen as an instance of face-to-face interaction between a server who is 'officially posted' in some service area and a customer with a desire for some service. In service encounters, there tends to be a particular kind of asymmetry in the relative states of the participants' knowledge.[3] Although customers know want they want as an end product, they often lack adequate knowledge about what exactly is involved in achieving that outcome, and what all of their options are. Servers, in contrast, tend to know their institution's official terminology for its services, but not what the customer wants or needs. In order to achieve mutual understanding, the participants must work to manage their relative states of knowledge and arrive at mutual recognition and understanding.

The service interaction

Implementing a digital media loan at the museum's front desk greatly affects the service interaction between the assistant and the visitor. Questions of whether or not to offer the iPod explicitly become relevant: Should it be standard procedure? Should assistants only lend it out when they have the time? Should only certain types of visitors have the offer? And where in the service interaction should the loan be offered?

A great constraint on the service phase is time, and a digital media loan takes time. When time is limited, for example when visitors are queuing, service is limited. When time allows, the front desk assistant may offer a detailed demonstration of how to use the guide and explain the possible benefits, but may completely exclude the offer if lots of visitors are waiting in line. The front desk personnel are also faced with challenges in recipient design. They must be able to quickly 'read' visitors and customise the offer according to each visitor's special needs and competencies. In other words, in the recipient design, issues of visitors' prior knowledge and familiarity with apps and iPods become relevant.

An example[4]

The following excerpt's sequential structure is typical in the sense that the offering sequence occurs at the final part of the interaction between the front desk assistant (A) and the guest (G). The guest arrives at the desk (lines 1-3) and buys a ticket for the temporary exhibition (lines 4-14). After the money, the tickets and the written folders have been exchanged (lines 15-20), the offering of the iPod loan occurs (lines 21-29). [1]

If we look at the form of the offer more closely, the word choice *audio guide* is noticeable (line 21). With the word choice a stance towards the object itself and a stance towards the recipient is articulated. Other formats in the data are: *a guide you can bring into the exhibition*, *a multi-*

```
    ((G arrives at desk))

A:  hej ((in Danish))
G:  hi
    just one please
A:  jaer just for the regular (.) collect-
G:  just the regular
A:  yeah it's free
G:  oh it's free
A:  yeah the gallery upstairs it's free
G:  oh ah I want to see like the Toulouse Lautrec right
A:  yeah you can
G:  okay thats the one  [I want to go to yes
A:                      [jaer okay (one moment)
G:  mhm
A:  ninety five
    (19.0)
A:  five
G:  thank you
A:  you're welcome
    (1.5)
G:  do you like an audio guide
Ps: (0.5)
G:  uh is (.) is that free as well or
A:  its free you just need to put down a deposit like
A:  an id or
G:  yeah sure I'd like that please
    (18.0) ((A leaves to get the ipod and comes back))
G:  oh through an ipod
A:  yeah
    (2.0)
A:  and this is the guide for Toulouse Lautrec
    ((begins instructions))
```

[1] Transcript of an exchange between museum guest and front desk assistant at SMK.

media guide, a thing you can listen to, a smartphone app, an iPod. With the word choice *audio guide*, the assistant uses a term, which is probably more commonly known compared to for instance 'an app'. The whole offering process is fairly straightforward: *Do you like an audio guide?* (line 21). There are no pauses, hesitation or other markers, compared to other examples in the data, for instance: *then I:: e:m also have such things*. The way the offer is produced in the excerpt indicates that the assistant does not regard it as problematic. By using a direct and straightforward question, the assistant displays an expectation of familiarity on the guest's part. In other words, she treats the object as an object known to the visitor.

The visitor does not accept the offer right away; she asks *is it free* (line 23). However, she does not object to the assistant's expectation that she knows what the offered item is. When it is confirmed that it's free, she accepts (line 26). Then an 18 seconds pause occurs, where the assistant turns around to get the iPod behind the counter, then she comes back and places it on the desk. Next, the visitor says *oh through an iPod* (line 28) thereby displaying that this is not what she expected to get. Thus, there is a difference in understanding: What the assistant meant was not what the visitor thought she meant.

So in this short exchange we see that questions of acceptance are closely connected to questions of familiarity: is the visitor familiar with the item that gets offered, and on what grounds will he or she accept or reject the offer? This multi-layered quality of offers becomes crucial, as participants may choose to align with the terms of familiarity while misaligning with the offer, and vice versa. Moreover, questions of familiarity are sensitive issues. Participants strongly orient to the novelty of the media and the assistant is very likely to put the visitor in an awkward position no matter what she does: If she displays anticipation of familiarity, chances are that the visitor is not familiar. If she displays anticipation of non-familiarity, she might treat the visitor as not competent.

In any case, when offering a digital media loan museums face great challenges in how to make the offer, how to talk about the offered item as well as how to present it as a physical object and explain how to use it – while guessing the visitor's familiarity based on seconds of interaction.

1 Tallon & Walker, 2008.
2 Pocket-Proof & LearningTimes, 2011 + 2012.
3 Drew & Heritage, 1997.
4 A more elaborate analysis can be found in Laursen, 2013.

References

P. Drew & J. Heritage, *Talk at work: Interaction in institutional settings*, Cambridge University Press, 1992.

Ditte Laursen, "Balancing accessibility and familiarity: Offering digital media loans at the museum front desk", *Museum management and curatorship*, 2013, 28 (5).

Pocket-Proof & LearningTimes, *Museums & Mobile Survey 2011 + 2012*. 738 museum voices on the objectives, challenges & future of mobile interpretation.

Loïc Tallon & Kevin Walker, *Digital technologies and the museum experience: Handheld guides and other media, AltaMira Press, 2008.*

How to ride the digital wave

LARS ULRICH TARP HANSEN, HEAD OF COMMUNICATION,
KUNSTEN MUSEUM OF MODERN ART AALBORG

Cultural heritage institutions worldwide want to ride the digital wave, but keeping up with the rapid technological development can be daunting. A range of museums from the northern part of Denmark have joined forces to develop apps for smartphones, based on shared technical solutions and platforms. This collaboration has resulted in agile, low-cost production flows and a flexible, sustainable infrastructure.

Digital communication at KUNSTEN

In the early 2000s, KUNSTEN developed a range of education materials called "The Digital Image School" (Den digitale billedskole) which to this day remains among the most comprehensive material on basic image analysis available in Denmark. Part of the material consists of brief introductory texts about works in the museum's collection; these texts can be used in a range of different digital products. The image school can be used without visiting the museum, and indeed it is used by teachers and students throughout Denmark. Having created this extensive material, our strategy was to then bring it into the exhibition space – without, however, cluttering up the space with a myriad of signs.

We did so in 2009 by placing touch screens within the physical museum setting. However, it turned out that our visitors' interaction with these screens had a different focus from what we had intended. For in fact, most of the visitors found the actual act of clicking on the screens more interesting than using the screens to learn more about the art in the collections. This meant that the technology was not, as we had intended,

a transparent layer that served to convey the deeper insights available underneath – rather, the users experienced the technology in itself. We believe that the reason for this behaviour resides in the fact that during museum visits, the vast majority of visitors need information about the artworks at the very moment they are actually standing in front of them. The touch screens were located at the peripheries of the exhibitions, meaning that the information they contained was available only after visitors had left behind the physical work of art – or before they had seen it. Visits to the MoMA in New York and other museums that offer audio guides *and* digital information stations confirm this pattern. Many visitors use the museum's audio guides, but no-one sits down to immerse themselves in the information provided by the computers located along the edges of the exhibition areas.

Fundamentally, then, we wanted an audio guide, but at that point, the technology available would be too expensive for us, both in terms of the initial investment and day-to-day operation – and it would not allow us to facilitate personalised routes through the collections. The arrival and widespread popularity of the iPhone in Denmark brought new opportunities in its wake: Now, museums could, with little expenditure of time and money, develop small, simple web applications that could be used directly in front of the exhibits. Chris Alexander from the San Jose Museum of Art had made the code for his museum's web app available to all – for free. This meant that KUNSTEN could create its own web app without having to hire someone with extensive technical expertise. However, adding new content was still very time-consuming, and the fact that only one person at the museum possessed the skills required to carry out the updates made the entire process rather exposed to bottleneck issues.

Lessons learned

The lessons learned from the projects described above were that our visitors took a very positive view of the web app – and our front-end staff, too, were pleased to finally be able to supply what our visitors so often requested. However, the users would like to see more content. We produced audio clips using our own in-house equipment and were

fortunate enough to receive highly positive responses from the curators and artists asked to record such clips. We saw that audience members were much more likely to access and use this information when standing in front of the artworks rather than via the touch screens. However, the technical solution underpinning all of this was not viable in the long term. Content on the website, on the information screens, and in the web app had to be updated manually – and separately for each of the three platforms. What is more, the cost of operating the website and information screens had risen to the point where we spent approximately 20% of our marketing budget on licenses and updates – and this figure does not include the time spent on maintaining the platforms.

Towards a viable structure

We wanted to utilise more of the potential inherent in smartphones and to develop an app that offered a better user experience. This move would also represent a break away from the museum's existing digital infrastructure, which had become a drain on our resources in many ways. We wanted to be able to update all content in just one place from which all digital products drew their information, and the platform should also be based on open source technology in order to ensure flexibility in future development work.

However, we were not the only ones who wanted to develop such an app and such a system. KUNSTEN is part of the organisation KulturarvNord ("Cultural Heritage North"), which serves as a setting for strategic collaboration between 10 museums of art, history, and culture in the Northern region of Denmark. One of the objectives of our work is to develop and carry out joint communication, education, presentation, and networking projects. This makes KulturarvNord an obvious choice of forum for the work we had in mind, and the members duly proceeded to set up a pilot group comprising Vendsyssel Historical Museum & Archive, the Coastal Museum of Northern Jutland, Skagens Museum, and KUNSTEN. The four members represent different types of museums with different needs in terms of communication and information work. These ranged from conveying information in the physical museum setting to presenting links between exhibitions in the museum building and the local landscape, and

[1] Lars Ulrich Tarp Hansen and actor Troels Malling recording an audio track for the painting Primavera (1901) by Harald Slott-Møller at KUNSTEN Aalborg.

conveying information while out in the open landscape. In this sense, the pilot group members represented the full spectrum of communication needs among all KulturarvNord members. The project organisation was deliberately kept small in order to ensure that the group could work swiftly and decisively without getting mired in red tape and chains of command.

CHAOS:_ as platform

KulturarvNord got in touch with the Danish Broadcasting Corporation, DR, which had developed the media handling system CHAOS:_ based on open source technology.[1] The system is, among other things, used for DR's digital archives of radio and television broadcasts, meaning that it can handle a range of different media formats. With its flexible

structure, this system met our needs completely. And not only did DR have the technical platform we required; our dialogue with DR project manager Tobias Golodnoff and his staff revealed that we fundamentally agreed on essential values pertaining to the sharing of content and the sharing of technical systems. DR also had a specific incentive for taking part in the project: to explore how new products might be applied on top of CHAOS:_ to activate archived materials. To act as KulturarvNord's technical partner, DR hired the media company Redia to develop the applications, and DR adapted CHAOS:_ to match the needs of KulturarvNord. This took care of the technical aspects of the project.

Efficient content production

When creating audio guides, the standard procedure is to first write scripts for each of the selected artworks or exhibits. These scripts are recorded by experienced speakers in a professional studio, and after some editing, the audio clips are ready for use. The entire process is time-consuming, but more importantly, it also entails a risk of alienating users; having a carefully written script read by a professional speaker may establish an unnecessary gap or sense of distance between audience and museum. What we wanted to do was to simulate a guided tour where you can feel the speaker's professional passion for their subject. To achieve this we established a firm rule. The curators speaking were not allowed to write scripts; they had to speak on their subjects without reading out something that had been written beforehand. This dogmatic approach may seem radical, but essentially, it is no different from what happens on a conventional guided tour. We attached a radio journalist and a video journalist to the project. They took care of all production aspects and helped the curators convey their stories and messages in a precise and easy-to-understand fashion. The audio tracks and film footage were shot on location right by the artwork in question.

This greatly simplified the production process, paring it back so that only the curator's professional insights, passion, and ability to communicate were left. The simple production methods had the added benefit of allowing us to generate a lot of content in little time. KUNSTEN produced

around 70 audio guides in two months, including the editing process. The history museums produced video footage, for example in order to demonstrate the use of specific tools, and this required a little more time. Nevertheless, Vendsyssel Historical Museum, for example, managed to produce 40 video guides. This material was added to the museum's existing materials, which had been made compatible with the app, to form the total content.

Results

At the time of writing, the project is not yet finalised, but it has already yielded substantial results and benefits.

Platform
DR's CHAOS:_ system serves as the technical platform for the applications and other future products. CHAOS:_ can access information from the Danish national registration system Regin, which means that it is only necessary to update master data in one place. A module for the Drupal CMS system has been developed, allowing content to be used on information screens and websites.

Applications
All members of KulturarvNord will have an app made for them for free. Members can choose from a range of different modules, including a timeline, a map function, the option of creating guided tours and themes, showing works on the list, playing audio and video content, etc. The various modules for the apps are made available as open source code, allowing other museums or developers to use them or continue work on them – on the strict understanding that whatever they develop will in turn be made available to everyone else. A joint app linking to the various members' apps will help market the project.

Content
A journalist has been put at disposal for all museums. In addition to helping with production work, the journalist will also help customise each museum app in co-operation with Redia.

Cost

The budget for the entire project, including the 11 apps and the journalist salaries, came to DKK 1.5 million (EUR 200,000). The funds were provided by the Danish Agency for Culture, the Regional Culture Agreement, Region Northern Jutland, and the EU.

How do you ride the digital wave?

Cooperate

Museums should not be vying with each other for the honour of being the best IT development company, creating the most spectacular digital projects. Rather, we should compete for the honour of being best at creating content for large audiences and sharing that content.

Build a sustainable infrastructure

Do not make new, separate platforms for individual products. Aim instead to create a platform from which all digital platforms can draw data. Digital content can be used in many places and will have a longer lifespan than individual apps and other digital products.

Analyse audience needs

Our audiences wanted an audio guide – so we gave them an audio guide which at the same time enables them to watch images, videos, and to find other relevant information. Furthermore, our audiences wanted extensive content. We gave them that, and such content may help prompt greater interest in the museum's collections. The opportunity to present in-depth content has also allowed us to communicate our passion for our fields of study.

Set up a fast-working, competent and empowered project organisation

"Think big, start small, move fast" – that is the recommendation offered by Michael Edson, who is in charge of web and new media strategy at the Smithsonian. A small project organisation will get more done in less time. The organisation members must be well versed in subjects such as communication, usability, audiences, and new media. All this has made KulturarvNord and KUNSTEN well prepared for future digital endeavours and collaborations.

---

1 Read more in Golodnoff & Lerkenfeld's article p. 161 ff.

Sharing is Avant-Garde

THEIS VALLØ MADSEN, PHD FELLOW, AARHUS UNIVERSITY
AND KUNSTEN MUSEUM OF MODERN ART AALBORG

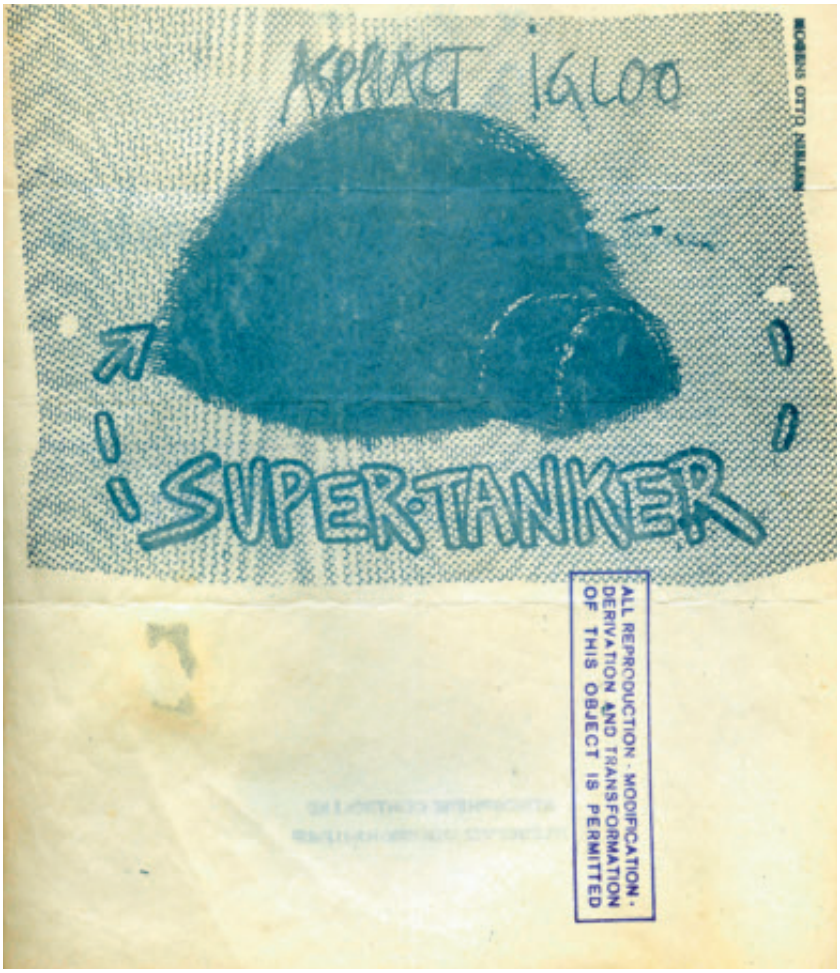
Long before it was common to exchange, share, and remix all kinds of things on the Web, a small group of artists challenged the norm of artistic production by encouraging people to freely draw, write, expand on and repurpose their work. Theis has taken a dive into the archives where he discovers interesting congruencies between the 1960's mail art movement and contemporary strategies for sharing and remixing digitised cultural heritage.

Exploring the mail art archive

In KUNSTEN Museum of Modern Art's storage room is a messy, unordered mail art archive. In the files, I once stumbled upon a mail art piece by the Danish artist Mogens Otto Nielsen. The piece is a picture of an "asphalt igloo", the word "Supertanker" meaning either "super tanker" or "super thoughts" in Danish, and one of the artist's recurrent rubberstamps that reads:

ALL REPRODUCTION • MODIFICATION • DERIVATION AND TRANSFORMATION OF THIS OBJECT IS PERMITTED

The mail art movement began in the late 1950s as an attempt to change the production and distribution of art. Mail artists used the common postal system to exchange and collectively produce artworks, thus creating an international network of art, artists, and amateurs working outside the official art institutions. Outside the galleries and museums, the artists shared an understanding of art as something that should spread, change, and re-change.



[1] Supertanker, Mogens Otto Nielsen (undated).

Mail art was a centaur, not "half materials and half words", as Harold Rosenberg called the artworks of the 1960s[1], but rather half materials and half system. Firstly, mail art had to be posted, thus becoming a part of the modern postal system and thereby succumbing to the rules and regulations of this system. Secondly, mail art was an exchange involving at least two artists, a sender and a receiver. There was no audience, only participants, using or misusing a common system of communication. [1]

Mogens Otto Nielsen's rubberstamp is a parody of the postal and governmental bureaucracy, but it is nonetheless a sincere statement. By stamping it, the artwork is open for change, copying, additions etc., thus spelling out the mail art network's intention to create and facilitate open-ended, ever-changing works of art. So, Mogens Otto Nielsen's small "Supertanker" is one of these ideas meant to be circulated, copied, and absorbed into other people's work.

Today, many of mail art's ideas and principles are part of everyday culture, at least in the Western part of the world. The principles of mail art are reminiscent in peer-to-peer networking, hypermedia, creative commons, crowdsourcing, and open-source, not to mention a growing group of galleries, libraries, archives, and museums concerned with sharing content and knowledge. Consequently, findings from Mogens Otto Nielsen's mail art archive might give us an insight into non-digital avant-garde experiments with sharing, including the risks and costs.

Learning from mail art sharing strategies

Exchanging artworks was not a risk-free business. Firstly, the postal system's bureaucracy would have its way with the envelopes and packages, stamping, bending, scratching, and in other ways adding a kind of postal patina to the artworks. Stamps and other bureaucratic marks were part of an overall "mail art aesthetics" or "bureaucracy aesthetics", but a noteworthy part of the exchange was also the potential loss and *halt* in the postal system as in "lost in the mail" or "return to sender"[2], not to mention the risk of prosecution and imprisonment for the artists working in South America and Eastern Europe.[3]

Secondly, mail artists couldn't charge people. Exchanging artworks in a gift-exchange economy involved a possible break of the etiquette-of-giving. Sending out artworks was no guarantee of receiving artworks in return as merchants would in a barter economy. At least momentarily, mail artists abandoned the traditional way of producing art, i.e. creating a single and autonomous work of art to be exhibited to an audience. The gift-exchange economy meant that mail art pieces had no commercial

value, and the exchange became "an act of ritual generosity", as Ina Blom writes about American artist Ray Johnson's postal performance. Sending and responding to mail art would mean giving it away, letting go, potentially having your work altered or destroyed by the postal system or a fellow artist.

This does not necessarily mean that the mail art network was a power-free structure. Despite the anarchistic spirit in mail art, the recurrent "no rules" stamped or written in manifests, invitations, and on envelopes, there was nonetheless a social contract when sending, receiving, and sharing: "To engage in the principles of the mail art system is to agree on a number of musts and must nots (do not judge, get rid of your vanity, try not to think about work after you have sent it, do not expect any returns etc.) […]"[4] and these principles are written in various stamps and leaflets like Nielsen's ten mail art commandments. [2] Though these rules and anti-rules are a spoof of the official and "real" bureaucracy, the gift-exchange economy and the self-understanding of being a counter-culture nevertheless generated a complex set of unwritten rules within the mail art network.

Mogens Otto Nielsen's Ten Commandments for mail art.

Thirdly, mail art is related to the broader contemporary problem of chaotic networks and "information overload". The mere quantity of mail art pieces was and still is a double-edged sword. No doubt that mail art was a release of concealed artistic force, but using the common postal system, disregarding the traditional hierarchy of the art world, creating exhibitions with "no rules", "no jury" etc. also meant that the network was flooded with mail art pieces of varying quality. In front of a mail art archive, one must find a way to make sense in the chaos, without losing sight of the enormous creativity in the chaos. As with many other messy collections of art and cultural heritage, one must find a way to organize and navigate in these large quantities of information.[5]

Today, trying to create a new culture of sharing between museums, one needs to acknowledge that sharing is not a risk-free or power-free endeavor. The benefits of sharing are enormous and observable – as can be seen elsewhere in this publication – but if the history of mail art can tell us something about the potential creativity in working peer-to-peer, the same history tells us something about the risks and costs of sharing. If we want museums to open up, museums should agree on a set of ground rules and write down the unwritten rules. Then museums might start stamping their digitized texts, pictures, data, and metadata like Nielsen; thereby enabling their digitized items and collections to be spread, reproduced, modified, and – in the end – improved.

---

1 Harold Rosenberg, *The De-Definition of Art*, Horizon Press 1972, p. 55.

2 Ina Blom writes more in-depth about this "halt" in *The Name of the Game: Ray Johnson's Postal Performance*, National Museum of Contemporary Art, Norway and Ina Blom, 2003.

3 In the East, the threat of political prosecution was very real. During the Cold War, circulating mail art was monitored, scrutinized, censored, and sometimes the reason for imprisonment of artists. Presumably, the Stasi archives in Berlin holds the world's most comprehensive mail art collection thereby making it the best documented art movement in the history of art ("Mail art in East Germany", a panel discussion at *Transmediale* 2013).

4 Ina Blom, *The Name of the Game: Ray Johnson's Postal Performance*, p. 12.

5 This is the basic idea of my presentation "Mapping the Messy Archive" http://vimeo.com/55610992 at Sharing is Caring 2012.

@skattefar

Towards a public authority at eye level

LENE KROGH JEPPESEN, DIGITISATION LADY
WHO BELIEVES IN SOCIAL MEDIA, SKAT – THE
DANISH CUSTOMS AND TAX ADMINISTRATION

@skattefar is the human and helpful profile of SKAT on the social media platform Twitter. A team of forthcoming employees responds to questions and comments from the users, and this in turn helps SKAT to solve problems more efficiently, and to offer better and more targeted service to citizens. Lene, one of the team members behind @skattefar, provides insight into how public institutions can exchange knowledge and engage in new relations with their users by actively taking part in social Web culture.

@skattefar meets Emil

On 15 September 2012, @skattefar received a tweet from @emilstahl:

"Couldn't you stop your entry form at the E-tax password login page from auto-completing the user's social security number? Use autocomplete = "off"

@skattefar first assumed that the problem resided with local browser settings – and used screen dumps to guide Emil to rectify matters at his end. But @emilstahl did not let up:

"You really should fix this for security reasons. Otherwise anyone can simply enter the first digits of the social security number, and then all of it pops up …"

Emil's contribution prompts a dialogue with several other participants, and as a group they make it clear that an IT error made by SKAT has made it possible – in certain circumstances – to see other people's social security number on a public computer. The employees behind @skattefar then act on the information received and correct the mistake, and @skattefar sends a goodiebag of SKAT merchandise to @emilstahl as a thank-you.

That September tweet became the starting point of a longer-term relation between 16-year-old Emil and @skattefar. When Emil's teacher planned to teach them about taxes and society, @emilstahl tweeted @skattefar to get help finding the teaching materials created by SKAT. When Emil's Facebook friends discussed whether they would need to pay import duties on goods sent from the UK, Emil had the right answer and got @skattefar to confirm it. Emil has found SKAT to be relatable, accessible and accommodating and turns to @skattefar whenever something pertaining to tax issues comes up in his life.

The challenge for SKAT: Making compulsory communication with authorities seem inviting

The last two decades of digitisation of the Danish tax system has caused the Danes to feel rather distanced and alienated from their own tax matters. The age when every citizen spent the spring months toiling with their pencils, paper, and calculator in order to calculate their taxes and fill in their tax returns is long gone. But it is still compulsory for every citizen to review their own taxes, and many look upon this as a very grown-up, boring chore. At the same time, many citizens perceive SKAT's communication as bureaucratic, authoritarian, and difficult to understand. This means that SKAT faces the challenge of making compulsory communication accessible and relevant to citizens where they are. [1]

In addition to this, SKAT wishes to be an *accessible* authority; one that is ready to talk to citizens about their taxation issues and questions –

[1] SKAT uses @skattefar to make compulsory communication with the authorities accessible and relevant to citizens. Photo from a concept development workshop about citizens' perception of SKAT as public authority, June 2011.

and willing to learn about how citizens perceive our communication and digital solutions. Having this information helps SKAT become an efficient and up-to-date authority characterised by the highest possible level of user-friendliness in its digital solutions.

Twitter as a new platform for reaching citizens

In May 2010, SKAT entered the realm of Twitter with the profile @skattefar; this step was part of the ongoing evolution and development of the role of public authorities today. The objective was – and still is – to offer service and conversations based on our ambition of being a relatable authority.[1] What makes an authority relatable? A combination of several actions, all of which are supported by Twitter:

140 character-limit forces you to speak plainly

The 140 character limit forces @skattefar to get creative. Here, the SKAT authorities are compelled to state things briefly, plainly, and in everyday language that makes SKAT appear more down-to-earth in the users' eyes. As Emil puts it: "On Twitter you say things in ways that are easy to understand."[2] Emil says that this is particularly relevant where young people are concerned:

"If I call you on the phone I'll get hold of some old fogey. There are plenty of grown-ups who have difficulties understanding SKAT, so how should I, at just sixteen, be able to get it if you use a lot of jargon?"

Placing the voice of the authority in the here and now

@skattefar answers quickly to all followers' questions and also writes about topical issues directly to followers. Emil points to the news items and the rapid response times as examples of things that @skattefar does right on Twitter:

"The thing about not having to pay taxes out of your pocket money – that was on Twitter before it was in any other media. You are on Twitter every day; you write actual content for it [in contrast to many others who employ automated communication from Facebook and link to press releases via Twitter] and you answer almost immediately if we ask you about something."

All this requires an ability to 'plan and improvise' whereas the classic disciplines of authorities everywhere focus on 'planning and implementing'. The authority can certainly still plan its communication, but must also be aware of subjects that interest users – and use these to improvise relevant responses and dialogues with users.

An authority with a human face

A group of employees from SKAT take turns to provide @skattefar with a voice. Tweets are signed individually by the person acting as @skattefar,

[2] @skattefar is about having the courage to listen to and enter into dialogue with citizens. Photo from a concept development workshop about citizens' perception of SKAT as public authority, June 2011.

thereby adding to the sense of human contact. The profile as a whole is humanised by the deliberate decision to omit the heraldic crown device normally used by SKAT as a profile picture, opting for a group picture of the voices behind @skattefar instead. This decision helps demonstrate that what may seem to be a vast, anonymous authority is actually full of friendly and helpful people. [2]

Listening to the citizens

As was stated in the introduction, Emil and several other users called @skattefar's attention to an IT error in September. Emil describes that experience as follows:

"At first I don't think you quite understood what I was saying. But then some other guys explained it too, and then you got it. The fact that others agreed with me shows one of the advantages of Twitter. It is an open forum, and other people can see what's going on. So you have to respond – because if you don't, others will see that you don't want to reply. And they'll think 'really, they ought to reply to that.' I think that this openness is a good thing because then others can see that you answer me too, and I get my answer. It is good for everyone concerned."

No-one is infallible. And that applies to authorities, too. Having the courage to listen to and enter into a dialogue with citizens that report errors or bad experiences will only strengthen a modern-day authority. The authority learns something and gets input that will prompt improvements. The citizens find that they are seen, heard, and understood, and this also means that they feel they receive better service.

Having the courage to ask

@skattefar asks our followers to test out new ideas and the ways we write. For example, @skattefar carries out "language checks" by posting screen dumps of existing texts. This exercise was part of the efforts made to improve the annual statements sent out in the spring of 2013. Emil points to this as an example of how to make good use of Twitter: "Your recent language checks, too. You use it to get help if you have a question." Daring to ask the citizens about their opinions requires you to make a break with the role traditionally assumed by authorities; a role where the authority will, by definition, have *all* the right answers. Of course, not everything should be tested by the citizens. For example, Twitter is not the right forum for addressing questions about the overall redistribution of wealth in society, and @skattefar should not challenge the concept of paying taxes at all. SKAT is still the main expert responsible for legal matters, decisions, etc. @skattefar does not go into specific tax cases, nor should such matters be left up to the consensus of a wider circle of Twitter users.

Conclusion: A relatable authority builds and maintains relationships between authority and citizens

@skattefar helps give SKAT an accessible and open quality – it presents SKAT as a relatable authority that listens. It creates a new relationship between authority and citizens, where citizens, turn to the authority when it is relevant to them – and in the manner that best makes sense to them in their current situation. When asked whether he will turn to @skattefar again in the future, Emil replies: "Yes, if I have any questions; if anything comes up I'll simply write." Can you become a more open and inclusive authority simply by creating a profile on Twitter or some other social platform? No, but for SKAT creating such profiles has been part of the process. Establishing a dialogue with citizens also prompts new dialogue within the organisation itself and helps evolve the authority culture. Listening to the citizens' side of things and hearing about their experiences develops a keener sense of how to be a modern authority – one that does not necessarily have *all* the answers.

---

1 To read our policies on SKAT on social media, visit http://www.skat.dk/skat.aspx?oID=4650

2 Emil's quotes are excerpts from a telephone interview, conducted in March 2013.

Open licenses, open learning

PETER LETH, PEDAGOGICAL CONSULTANT, LÆR IT AND EDUCATIONAL ADVISOR, CREATIVE COMMONS DENMARK

If you want to know what the benefits of free access to digitised cultural heritage are, Peter can tell you. With many years of teaching in the Danish public school on his back, he knows the need for trustworthy educational materials of high quality. What's more, he knows about the students' online behaviours. When they search for knowledge it is crucial to their learning that they can get their hands dirty, working actively and creatively with the materials they find. Sharing, sampling, and remixing are keys to durable learning. These are the future users of cultural heritage.

The school must promote a lust for learning, understanding, and general literacy. Any school today is full of curious tinkerers who are all digital natives. So what happens when we make our cultural heritage fully accessible via open licences? What happens if we do not? These are important questions for me as a teacher, parent, and citizen.

In recent years, it has become increasingly common to employ a digital strategy that involves the use of open licences; Statens Museum for Kunst is one example of this approach. This creates a range of fantastic new opportunities for teaching and for putting our cultural heritage into play for new generations.

Accessibility is not just about having a work shown on a website. If simply seeing or watching something was enough to learn and become educated, we would long ago have eaten our packed lunch at home and simply sent students links to their daily "play" button. However, learn-

ing is an active process where the student generates understanding and important communication through various forms of self-expression. It is crucial that information and knowledge can be copied, reproduced in answers, processed, remixed, and used in new ways. Learning depends on access to knowledge. Of course it is impossible to share actual, physical works of art, but in a digitised world, sharing becomes entirely trouble-free – for a digital copy will never affect the original it sprang from. A Creative Commons Attribution license – as employed by e.g. Statens Museum for Kunst – allows for such genuine accessibility and makes it possible for everyone to gain deeper insights into the SMK collections.[1]

An everyday dilemma in schools: Tinkering is stigmatised

The school encourages a desire to learn and act. It encourages dedication, co-operation, lively communication, and free thinking, all of this combined with factual knowledge and competence development. This is described in detail in Danish legislation and the public school's curricula. The school wants to see and support creative, imaginative youngsters who evolve and learn how to interact with the world. But the school becomes conflicted with itself and its surroundings if it embroils itself and its students in criminal activities. And in fact it will do so every time it hosts an activity where you need to work with information and knowledge that is protected by copyright law. And yet the students' desire to learn prompts them to use digital tools to process, remediate, and reproduce content in various ways.

There is a conflict here: We have purchased computers for our schools, formulated laws about active tinkerers, and established a school system where IT is integrated into every subject. But at the same time, we may have overlooked the simple fact that our knowledge is no longer distributed via photocopiers. We must, at a very basic level, ensure that the content we process can in fact be legally processed in order to facilitate teaching that is both legal and informative. For schools can only teach the information and knowledge that others will share with us – otherwise the teaching itself will make criminals of us all. That dilemma will force

schools to omit, against their will, certain content – for example because of rules set up to protect our shared cultural heritage.

Open content on SkoleTube

On SkoleTube[2] we have launched a number of initiatives to make it easier for users to learn legally. Given that more than 500,000 Danish students and teachers use SkoleTube, it makes sense to help – and encourage – schools to focus on this sore spot, and we note that many schools have begun teaching students and teachers about open content and Creative Commons licenses.

The film workshop MovieCut is one of the tools on SkoleTube that helps make it easier to be legit rather than illegal. Here, users can access CC licensed images from Flickr and songs from Jamendo and the media collection Skolearkivet – an archive that includes 150 works from SMK that we have uploaded complete with metadata from SMK.[3] The different media are instantly available, and users do not need to spend

CC BY 4.0 Alina Sanderhoff, adapted from Tsahi Levent-Levi.

precious time finding and uploading dubious content themselves. Once the students have completed their task, the software will automatically insert end credits that list the authors of any works used from Flickr, Jamendo, and Skolearkivet. This takes care of the practicalities concerning the use of content created by others. Students see how sources should be listed together with content, and simultaneously the students send a clear signal to the world; a "thank you" demonstrating that they respect copyright terms and appreciate open licenses.

In short, you can find professional content presented in a user-friendly manner that also teaches students how to navigate the Internet safely and legally without compromising the scope or quality of content you can work with. Familiarity with the rules of copyright law is a fundamental premise for even beginning to talk about media didactics and proper conduct in the digital realm.

Hope for the future

Even though more than 500 million works are available under a Creative Commons license today, it is still important to ask: If not everything is available, then who will teach us about the inaccessible? If we cannot tamper with everything, who will ensure that the untouchable will nevertheless be touched upon?

Put simply, the wide open world which the Creative Commons licenses have helped make more visible and user-friendly in terms of the relationship between rights owners and users is mainly a product of a European and Northern American youth culture. We have seen that in recent years, e.g. when a biologist from Randers in Denmark was the first to provide us with free access to two Danish archaeological national treasures – the Golden Horns and the Sun Chariot – when a Dutch tourist gave us Roskilde Cathedral, a German tourist gave us the Jelling stones, and where part of our knowledge comes from private amateurs who enjoy what they see and enjoy sharing it. Flickr still shows a world without poverty, slums, pollution, or oppression – but just a few pictures can change this image of the world. Contributing to the world we share is

simple, and this means that we must all understand and use the Internet as a tool that promotes a creative community. According to the open content available on the Internet right now, Denmark has very little presence in the world, but it would not take much to change that. We can all make a difference if we want.

For the sake of culture and history, we should strive to make complete access the norm, thereby ensuring that shared knowledge can also be used for learning, development, and personal growth in the future.

History is remembered when it is told.

---

1 http://www.smk.dk/en/copyright/creative-commons/

2 "SchoolTube" – a platform where students and teachers can upload and share video and media productions in a safe environment, as well as access a range of media editing tools. Visit http://www.skoletube.dk/ (Danish only).

3 See examples at http://sharecare.skoleblogs.dk/. Here you can also find materials, lectures, etc. See SMK's open materials used in media productions, learn more about Creative Commons, and read the invitation for co-operation with GLAM institutions on SkoleTube.

About the authors

Nana Bernhardt

CC BY 4.0 SMK

Nana is head of education and development in the School Service at Statens Museum for Kunst. She holds a Masters degree in Art history from the University of Copenhagen and Écoles des Hautes Études in Paris, majoring in the American artist Kara Walker and representation of cultural identity and gender. She participates in the project "Museums and cultural institutions as spaces for Cultural Citizenship" and is co-writer of the book "Dialogue-based Teaching. The Art Museum as a Learning Space" in collaboration with Olga Dysthe, professor in Pedagogy at the University of Bergen, and Line Esbjørn, head of education and development in the School Service at Thorvaldsens Museum.

Shelley Bernstein

CC BY-SA 2.0 Shelley Bernstein

Shelley is the Vice Director for Digital Engagement & Technology at the Brooklyn Museum where she works to further the Museum's community-oriented mission through projects including free public wireless access, web-enabled comment books, projects for mobile devices and putting the Brooklyn Museum collection online. She is the initiator and community manager of the Museum's initiatives on the social web. She organized Click! A Crowd-Curated Exhibition, Split Second: Indian Paintings, and GO: a community-curated open studio project. In 2010, she was named one of the 40 Under 40 in Crain's New York Business and she's been featured in the New York Times.

Jill Cousins

CC BY 4.0 Europeana

Jill is the Executive Director of the Europeana Foundation, responsible for Europeana.eu and Director of The European Library. She is on the Board of Globethics and advises on the development of other digital libraries. She has many years' experience in web publishing, which are now being applied to the libraries and the cultural heritage arenas. Her past experience includes time in the commercial publishing world as European Business Development Director of VNU New Media and in scholarly publishing with Blackwell Publishing, running their online journals service. Prior to publishing, Jill had a variety of marketing and research careers in the information field. These ranged from being the Marketing and Event Director for Learned Information (Online Information) to managing her own research company, First Contact.

Michael Edson

CC BY 2.0 Lars Lundqvist

Michael is the Director of Web and New Media Strategy in the Smithsonian Institution. He has worked on numerous award-winning projects and has been involved in practically every aspect of technology and New Media for museums. In addition to developing the Smithsonian's first Web and New Media Strategy in an open process documented on the Smithsonian's Web and New Media Strategy Wiki, he stands behind the Smithsonian Commons concept, and he also helped create the Smithsonian's first blog, Eye Level, and the first Alternative Reality Game to take place in a museum, Ghosts of a Chance. Michael is an O'Reilly Foo Camp veteran and serves on the Open Knowledge Foundation's Open GLAM advisory board. In 2011, he was named a Tech Titan: person to watch by Washingtonian magazine.

Christian Ertmann-Christiansen

CC0

Christian has worked for 10 years designing and managing the national IT-infrastructure for Danish museums' data. With a background in Computer Science and in Political Science, his work focuses on a holistic understanding of user and institutional needs and requirements for IT-systems and on achieving consolidation through negotiation of political agendas and technical solutions that serve multiple purposes. Christian has worked 1998-2002 as a consultant at UNI-C, the Danish Centre for Education and Research, 2002-12 as head of section for systems development at the Danish Agency for Culture. He is currently head of department at the Royal Library.

Sarah Giersing

CC BY 4.0 Sarah Giersing

Sarah is a candidate in History. Her professional interests lie within photography and museology, and she works with education, curation, and audience development as well as collecting practices. From 2009-13 she held a position as curator at the Museum of Copenhagen where among other things she was the project manager of the museum's digital urban space platform, The WALL. Today she is research librarian at the Royal Library with responsibility for the National Photo Museum.

Tobias Golodnoff

CC BY-SA 4.0 the DR Cultural Heritage Project

Tobias is a MSc in IT & Business. In 2007, he was appointed project manager, assuming responsibility for the DR Cultural Heritage Project and the DKK 75 (EUR 10) million in earmarked funds that went with it. By keeping a keen focus on process optimisation, technology development, innovation, and external collaboration, he and his project team have ensured that DR is now amongst the world's leading organisations within the field of cost-efficient digitisation of TV and radio content. In Tobias' view, the objective of digitising the DR archives is to enrich the lives of Danish citizens by offering them access to their cultural heritage. His work is based on the mantra that Usage Equals Value. He believes that value grows when synergies are created across different organisations and tasks. One of Tobias' tasks is to share what he knows, and he holds a number of official positions in Danish and international organisations, including the position as General Secretary for FIAT/IFTA, and as member of the steering committee for the research projects LARM and CoSound.

Martin von Haller Grønbæk

CC BY 4.0 Martin von Haller Grønbæk

Martin is partner in Bird & Bird, an international law firm, and he is the leading lawyer in Denmark in the areas of IT, Internet and eCommerce. He has vast experience within the strategic and legal aspects of open source, Creative Commons, open data, and open business models. He blogs at vonhaller.dk.

Henrik Jarl Hansen

CC BY 4.0 Eva Hübner

Henrik is Senior Excecutive Adviser and project manager of Shared Museum IT in the Danish Agency for Culture. His background is a Masters degree in Prehistoric and European archaeology and he has previously worked at the National Museum of Denmark as curator and head of a unit and later as Head of Department at the Heritage Agency of Denmark. He has participated in cross scientific research projects Foranderlige Landskaber ('Changing Landscapes') and AGRAR 2000, as well as the EU projects ARENA and CARARE. Henrik Jarl Hansen has also done work as a member of the board for Danish ICOM, among other things as editor in ICOM/CIDOC and later as chairman of Archaeological Sites WG. Furthermore he has participated in several expert groups under the European Council, The Nordic Council of Ministers, and the Danish Ministry of Culture. His publications lie within the fields of archaeology and information technology.

Lars Ulrich Tarp Hansen

CC BY 4.0 Lars Ulrich Tarp Hansen

Lars Ulrich holds an MA in Communication, and is head of communication at KUNSTEN Museum of Modern Art Aalborg since 2005. Besides being in charge of public relations and marketing, he is responsible for developing and implementing the digital communication – content as well as technical issues. Lars Ulrich is living the phrase "Think Big, Start Small, Move Fast" aand aims in every project to reduce bureaucracy, streamline development costs and secure sustainable operations to ensure continuation when project funds run out. Lars Ulrich has been the initiator and primary concept developer on the iGuide-project in which a number of Danish museums cooperated on the development of smartphone apps, based on DR's (Danish Broadcasting Corporation) platform, CHAOS:_. The project has given small museums, that used to be unable to participate in digital projects, an opportunity to catch up with technology and achieve a sustainable platform, which forms a basis for future projects. Furthermore, he has been advocating a journalistic approach in the production of content. This approach creates a large degree of presence in the relationship between curator and audience and is, furthermore, cost effective. The iGuide-project has given KUNSTEN huge savings in the operating expenses for IT as well as an increased efficiency in the workflow.

Nanna Holdgaard

Nanna is a PhD fellow in the Digital Culture research group at the IT University of Copenhagen. In her PhD project she focuses on online media in museums, in particular social media, and how users experience and participate in these online environments.

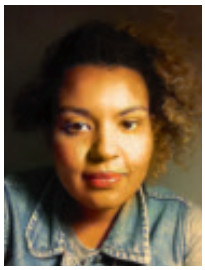
Lene Krogh Jeppesen

Lene has her feet firmly planted in Sociology, while her entire body since 2007 has found itself in the universe of SKAT (the Danish Customs and Tax Administration). She is one of the mothers of @skattefar ('tax dad') and the woman behind SKAT's additional social media initiatives. She actively promotes her three most beloved viewpoints: 1) Digitisation and service are not mutually exclusive. 2) Factual knowledge (as opposed to guessing) about the users and their behaviour is a prerequisite for establishing the best possible public service. 3) Social media help large public authorities on their way towards openness and dialogue at eye level.

Ditte Laursen

Ditte is a senior researcher at the State Media Archive, State Library of Denmark. The study for the article in this volume was conducted when she was a postdoctoral researcher at DREAM (Danish Research Centre of Advanced Media materials), with a project on digital technologies in museums (2009-11, funded by the Danish Agency for Science, Technology and Innovation). She earned her PhD in Media Studies from University of Southern Denmark, specializing in young people's mobile phone communication. Her major research interests are social interaction in and around digital media across formal, semi-formal and informal sites. In addition, she is curator of several digitization and digital projects at the State Media Archive, (2007-) and at the Netarchive.dk (2007-). She is participating partner in RESAW (Research infrastructure for the Study of Archived Web materials), IIPC (International Internet Preservation Consortium), LARM (Audio Research Archive Denmark) and DigHumLab (Digital Humanities Lab Denmark).

Miriam Lerkenfeld



CC BY 4.0 Miriam Lerkenfeld

Miriam is a MSc in Digital Design & Communication. Originally, she worked in the film industry, co-ordinating PR and marketing activities. She has subsequently worked with architecture, including a stint at Rem Koolhaas's OMA/AMO office in New York. She has solid experience within event management; past assignments include the New Media Days conference. At the DR Cultural Heritage Project, Miriam focuses on collaboration and dissemination of content at a strategic level, and she also handles a number of day-to-day activities pertaining to technical development work as well as workshops, events, etc. She has been temporarily allocated to other tasks within the DR organisation, where she has taken part in the digital launch of the DR3 channel, which is mainly aimed at young viewers, and the re-launch of the news and culture channel DR2. She also works with creative sparring on a number of projects, including the mail art archive at KUNSTEN Museum of Modern Art Aalborg. In addition to these tasks, she often shares her concept development and service design skills through teaching; her credits include work as an assistant lecturer at the IT University in Copenhagen.

Peter Leth

CC BY-SA 4.0 Kristina Alexanderson

Peter works as pedagogical consultant in the web service Lær IT (Learn IT) and as educational advisor in Creative Commons Denmark. He is trained as school teacher specialising in music and woodwork. In 2008, after 9 years as a teacher in the Danish public school system, he made a career move to the web service Lær IT where he works today as a developer of digital frameworks for learning on digital platforms. Since 2009, he has been deeply involved in Creative Commons Denmark where he now functions as advisor in the educational domain. In his spare time he is devoted to politics and knowledge sharing. He himself claims to be the person in Denmark who shares most images under open licenses on Flickr, so far approx. 6,500 images under CC BY. Furthermore, he is a voluntary contributor to and community member of OpenStreetMap.

Lars Lundqvist

CC BY 4.0 Siri Lundqvist

Lars' background is in field archaeology and research. A parallel career track has involved communication and implementing digital tools and new media in archaeology and historic preservation management. Since 2008, Lars has worked as head of information development at the National Heritage Board in Sweden. More recent work has been directed towards Linked Open Data and the introduction of an open, national cross-domain information infrastructure – a digital cultural heritage commons – in cooperation with the Europeana community.

Theis Vallø Madsen

CC BY 4.0 Theis Vallø Madsen

Theis holds an MA in Art history and is a PhD fellow at Aarhus University and KUNSTEN Museum of Modern Art Aalborg where he is working on a research project about mail art and museum archives. The basis of the project is Mogens Otto Nielsen's mail art archive – a messy archive consisting of about 16,000 items from around 600 artists. His research is concerned with the cataloguing, organization, and digitization of intangible and entangled art, art archives, and museum collections. He is the author of articles and publications about mail art, artists' books, museology and archive studies, and digital curating, culture and cultural heritage. Previously, he has worked at Funen Art Museum, and is currently working as an art and literature critic.

Merete Sanderhoff

CC BY-SA 4.0 Kristina Alexanderson

Merete holds a Master in art history, and specialises in open access to digitised cultural heritage and digital museum practices. She works as curator of digital museum practice at SMK and is responsible for providing open access to the museum's digitised collections and research, and using digital platforms to share knowledge and resources with fellow institutions as well as users. She is a frequent speaker and moderator at international digital heritage conferences. A conference organiser herself, she has set the agenda for open access in the Danish GLAM community at the international Sharing is Caring seminars in Copenhagen (2011-). Furthermore, Merete is a member of the OpenGLAM Advisory Board, the ARTstor Museum Advisory Counsel and the Europeana Network. Her publishing list includes the book *Sorte billeder – Kunst og Kanon* (2007), as well as exhibition catalogues and research papers.

Lise Sattrup

CC BY 4.0 Lise Sattrup

Lise is a PhD fellow with The Department of Society and Globalisation, Roskilde University and SMK. Sattrup's PhD is associated with the Cultural Citizenship Project, examining how exhibitions and education at museums contributes to cultural citizenship. She holds an MA (Ed) focusing on visual arts and has worked as head of education and development in the School Service at ARKEN Museum of Modern Art.

Bjarki Valtysson

CC BY 4.0 Bjarki Valtysson

Bjarki is an associate professor in the Department of Arts and Cultural Studies at the University of Copenhagen. His research interests include cultural, media, and communication policies, democracy, the application and reception of social media within museums, archives, and libraries, and how these institutions relate to production, distribution, use and consumption in digital cultures.

Jasper Visser

CC BY-SA 4.0 Jasper Visser

Jasper is an independent consultant at Inspired by Coffee. Here, he works with non-profits, NGO's and cultural organisations from around the world on strategies for the future, especially in the area of museums, libraries, media, communication, technology and business models. Also, he is the co-founder of several startups that turn his ideas into reality. Jasper regularly speaks internationally about these topics and keeps the blog themuseumofthefuture.com.

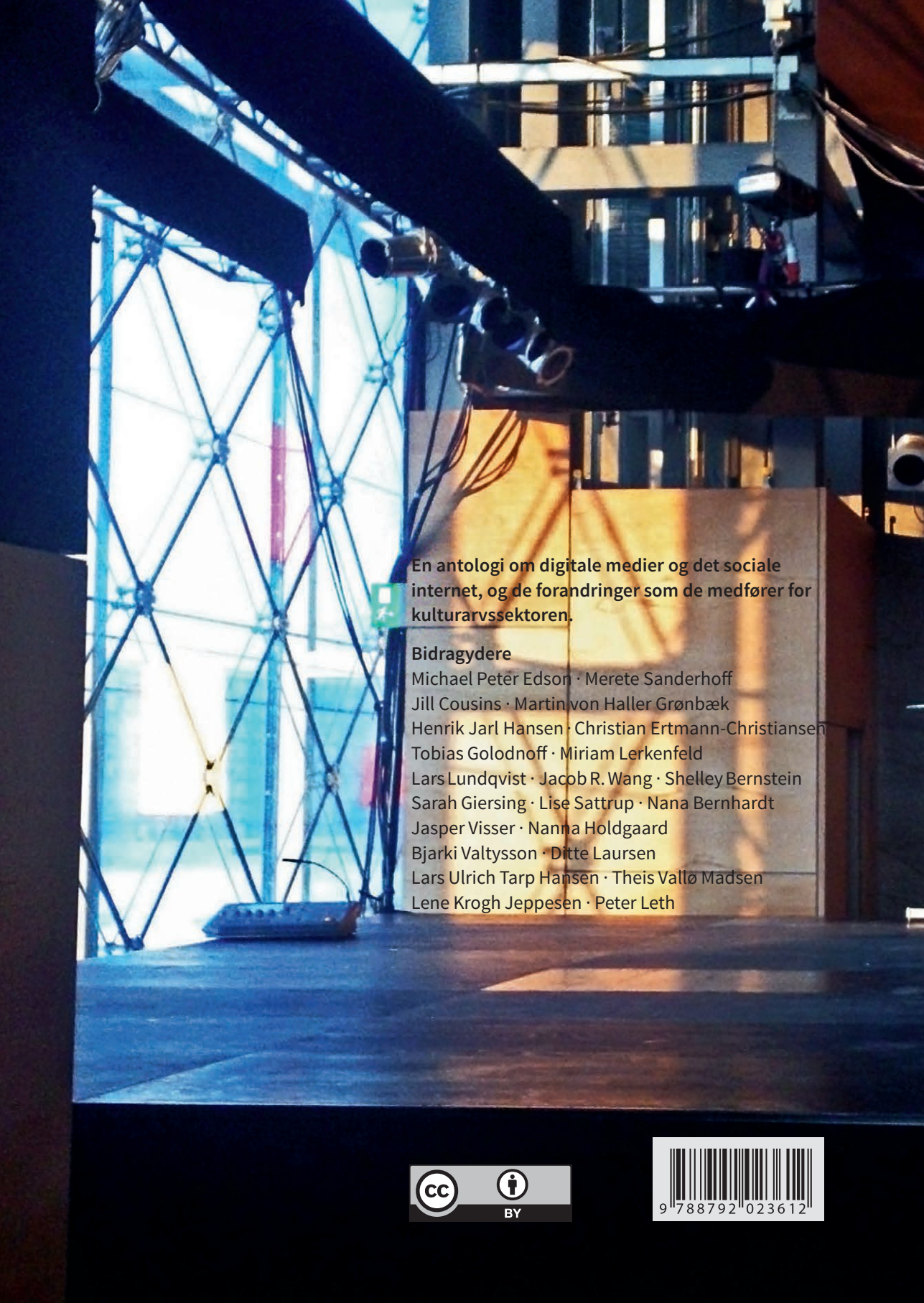
Jacob R. Wang

Jacob holds a bachelor in Philosophy from the universities of Odense and Copenhagen and is furthermore a candidate in Design, Communication and Media from the IT University of Copenhagen. Formerly, he was manager of the IT unit at Odense City Museums for four years, responsible for the development of the digital collection systems, exhibition media, websites, intranet, online education and operation of the museums' entire range of systems, exhibitions, and digitally supported workflows. Furthermore, Jacob has been IT coordinator and member of the board for Historisk Atlas ('Historical Atlas') – the largest Danish collaboration between archives, libraries and museums with more than 100 contributing institutions. The association Historisk Atlas runs and develops the shared platform for dissemination historiskatlas.dk. He is now head of digital media at the National Museum of Denmark with responsibility for digitisation and digital availability of the museum's collections and knowledge. On a daily basis his function is project manager of 'The Digital National Museum' – a perennial strategic initiative to work with openness, accessibility and transparency, as well as development of the museum's digital workflows and tools, and the digital competencies of the staff.

Image licenses

These Creative commons licenses are used in the anthology:

CC BY 4.0 http://creativecommons.org/licenses/by/4.0/
CC BY 3.0 https://creativecommons.org/licenses/by/3.0/
CC BY 2.0 http://creativecommons.org/licenses/by/2.0/
CC BY-SA 4.0 https://creativecommons.org/licenses/by-sa/4.0/
CC BY-SA 2.0 https://creativecommons.org/licenses/by-sa/2.0/
CC0 https://creativecommons.org/publicdomain/zero/1.0/



En antologi om digitale medier og det sociale internet, og de forandringer som de medfører for kulturarvssektoren.

Bidragydere
Michael Peter Edson · Merete Sanderhoff
Jill Cousins · Martin von Haller Grønbæk
Henrik Jarl Hansen · Christian Ertmann-Christiansen
Tobias Golodnoff · Miriam Lerkenfeld
Lars Lundqvist · Jacob R. Wang · Shelley Bernstein
Sarah Giersing · Lise Sattrup · Nana Bernhardt
Jasper Visser · Nanna Holdgaard
Bjarki Valtysson · Ditte Laursen
Lars Ulrich Tarp Hansen · Theis Vallø Madsen
Lene Krogh Jeppesen · Peter Leth

9 788792 023612