



SESSION SUMMARIES (in programme order)

**10:40-11:00 Introduction to Digital Preservation [BP Lecture Theatre]**

**Glenn Cumiskey**, Digital Preservation Resource Manager, British Museum

The Museum sector has been slow to embrace the opportunity that digital preservation presents. Why is this? What cultural factors are at play that leave us some decades behind developments in other sectors such as archives and libraries that are equally aligned to many of our own values and goals?

In this presentation I will frame digital preservation in the context of the Museum sector and explore some of the cultural differences that have challenged adoption of digital preservation best practice. What specific challenges do we face? And what opportunities lie ahead for those organisations willing to embrace digital preservation as an ongoing concern? Using examples from the British Museum and beyond, I hope to show how a new approach to digital asset management can drive innovation in a sustainable, scalable way.

**11:00-11:15 Introduction to the Digital Preservation Coalition [BP Lecture Theatre]**

**William Kilbride**, Executive Director, Digital Preservation Coalition

The Digital Preservation Coalition exists to secure our digital legacy. We enable our members to deliver resilient long-term access to digital content and services, helping them to derive enduring value from digital assets and raising awareness of the strategic, cultural and technological challenges they face. We achieve our aims through advocacy, community engagement, workforce development, capacity-building, good practice and good governance.

**11:15-11:45 KEYNOTE 1 – WHY? [BP Lecture Theatre]**

**PROPOSING THE MODES OF DIGITAL VALUE FOR A MEMORY INSTITUTION**

**Simon Tanner**, Professor of Digital Cultural Heritage, King's College London

I conceive of museums as 'memory institutions' as they assume a common aspiration in preserving, organizing and making available the cultural and intellectual records of their societies. Within this context the way they value their work and activity is a critical conception, especially in fast moving digital times. Value is individually understood and attributed but collectively shared and thus magnified. The word 'value' describes an idea about economics, an idea about personal expression and an idea about morality. Often these may be seen as in tension with each other. As the anthropologist Daniel Miller stresses value when expressed as 'prices' is directly opposed to value understood as 'values'.

In a heritage context tangible value is often associated with artefacts, historic sites or places that are considered by organizations like UNESCO or ICOMOS as 'inherently and intrinsically of value'. Intangible value is considered to be something that cannot be touched (such as education or social memory) or has a large information component and has greater fluidity, possibly changing in value over time and between different groups (such as beliefs, interests or symbolic associations). Intangible value is essential to appreciate for both memory institutions and digital resources - they rely on intangible values such as knowledge, social memory, education, brand or goodwill.

In my paper I argue for defining modes of value for digital culture in museums not solely driven by economics but which contain indicators of other more intangible values, even including non-use.

These 5 Value Lenses focus attention reflecting core values measured for their impact:

- Utility Value
- Existence and/or Prestige Value
- Education Value
- Community Value
- Inheritance / Legacy Value

These will be described in the paper and their usefulness to museums digital curation activities will be aligned.



**11:45-12:30 WHY? Breakout Session 1 [BP Lecture Theatre]**

**THE VALUE OF DIGITAL AND DIGITAL PRESERVATION IN MUSEUMS (CONT.)**

**Nicôle Meehan**, Associate Lecturer in Museum and Gallery Studies, University of St Andrews  
*The digital museum object as object: polyvocality and cultural memory*

What exactly is a digital object? And more importantly, for museum professionals, what is a digital museum object? What happens when we consider the digital museum object – born digital or a digitised collection item - as an object in its own right?

Drawing upon interview-based research conducted at museums in the US and UK, I aim to examine the networks in which digital museum objects are created, described, published, shared and ultimately preserved, in order to determine their perceived value to museum professionals and the public. In doing so, I suggest that we have not yet fully understood the innate worth and potential of these objects or their influence upon the creation of social and transcultural memory.

I argue that the manner in which audiences interact with digital museum objects - increasingly the primary and indeed, only way museum objects are experienced - fundamentally changes engagement with, and ownership of diverse histories. Digital museum objects offer an opportunity for museums to institute true polyvocal interpretation of their collections but how might we preserve this information accurately and usefully?

**Sarah Younas**, Digital Programmes Officer, and **Carolyn Ball**, Manager: Discovery Museum, Tyne & Wear Archives & Museums  
*New public engagement with collections*

How can we work with audiences to release the untapped potential of our objects and positively influence public attitudes towards the role of the museum? How can the process of collaboration influence the practice of the organisation inside and out? How can we ensure that we are truly open and generous with collections access?

Tyne & Wear Archives & Museums (TWAM) is a major regional museum, art gallery and archives service managing nine museums and galleries across Tyneside and the Archives for Tyne & Wear. We have over 1.1 million objects in our collection which spans archives, art, science and technology, archaeology, military and social history, fashion and natural sciences – meaning that the possibilities for reuse are endless but our capacity to fully explore this material is not. We see this as an opportunity to understand how we can collaborate with our audiences to release the untapped potential of our objects and create digital memory, often in ways that we as a museum and archive could never imagine, to incite discussion, generate new audiences and empower and raise the aspirations of TWAM staff to create fresh, authentic experiences that positively influence public attitudes towards the role of the museum.

This paper will explore the initiatives undertaken by TWAM to inspire new public engagement with collections through enabling new and imaginative articulations of their value and address the challenges we face in being truly open and generous with collections access, including raising awareness, tackling limited and frustrating collections data and search capabilities and with a focus on past digital projects we will consider the impact of format changes and loss of access, functionality and even data on future reuse and preservation.

**Panel discussion / Q&A with keynote and speakers and Patricia Falcao, Time-based Media Conservator, Tate. Chair: Glenn Cumiskey, British Museum**

**11:45-12:30 WHY? Breakout Session 2 [Stevenson Lecture Theatre]**

**THE ROLE OF DIGITAL IN MUSEUMS**

**Dafydd James**, Head of Digital, Amgueddfa Cymru - National Museum Wales  
*The role of the digital team in the creation of cultural content*

How do digital teams support the development of interesting and engaging digital content, inside and outside of the cultural institution? There are different ways in which the digital team can help embed digital activity throughout an



organisation. I will be using three case studies for each aspect to demonstrate how Amgueddfa Cymru - National Museum Wales is approaching the challenges of becoming a post-digital museum.

*1. Supporting access through our collections and curatorial content online*

Behind the glossy front end of a collections online catalogue there are centuries of collecting, decades of digitisation and a legacy of metadata. The curators and collections experts have amazing stories to share: the digital team works with them to design experiences that help foster a relationship between the museum staff and its digital audiences.

*2. Enabling creativity through People's Collection Wales, a common platform for preserving a nation's heritage*

How does an institution democratise its content and encourage groups and individuals to share their own? Casgliad y Werin Cymru - People's Collection Wales is a collaborative programme developed by three of Wales' national institutions to tell the story of a nation from the perspective of its people, and to deliver that story bilingually.

*3. Developing an organisation's digital maturity*

The creation of digital content isn't just the responsibility of the digital staff - it is increasingly seen as part of everyone's skill set and all roles have some kind of digital element. AC-NMW is a partner in the 'One by One' collaborative project to develop digital literacy in museums, and is exploring ways in which the digital team is evolving to help the Museum improve its digital maturity.

**Dr. Geoffrey Belknap**, Curator of Photography and Photographic Technology, National Science and Media Museum

***Collecting and curating born digital photography***

Photography, in both its analogue and digital forms, defies boundaries. Photographs are simultaneously both objects and the tools used to classify and document objects. Photographs are also not contained in one material category. In their analogue forms, they can be made on glass, paper, metal, porcelain and many other materials besides. Digital photographs often have an assumed immateriality – but the hard drives or cloud servers that hold these items have a demanding physical presence: a presence, moreover, that doesn't easily align itself with traditional museum objects – servers and hard drives are literal black boxes that cannot be accessed without a secondary technology. How, therefore, can we collect and store digital photographs and privilege them in the same way as our object collections, when their material forms defy status as a museum object?

This paper will explore ways in which the National Science and Media Museum has been working towards a solution for collecting born digital photography, and how we can position these objects in relation to our 3 million+ analogue photographic collections. With a new curatorial collecting focus on the processes and practices of photography, born digital photography – and the technologies used to create and store digital photographs – are understood not just as important forms of visual content, but represent a critical technological shift in the way images are captured, stored, shared, and used. This paper will therefore discuss the implications of collecting born digital photographs in all their myriad forms – as data; as social, cultural and scientific objects; and as physical objects requiring specialised storage and preservation.

**Panel discussion / Q&A with speakers. Chair: William Kilbride, Digital Preservation Coalition**

**11:45-12:30 WHY? Breakout Session 3 [Sackler Rooms A & B]**

**UNDERSTANDING VISITORS**

**Hans Biorn-Lian**, Digital Programmes Producer, and **Ben Raithby**, Digital Media Developer, Royal Museums Greenwich

***Making interactions meaningful: how do we capture, store and share how our visitors interact with our content?***

At Royal Museums Greenwich we are embarking on an exciting, and we believe ground-breaking project to digitally link, store and analyse all visitor responses to digital and analogue interactives and activities across the sites. Under the umbrella of the Endeavour project – the activity plan associated with four new galleries opening this autumn – we have had the opportunity to make this project a reality.



We will create a service consisting of a database and API through which data can be added and extracted. Through doing this, the Museum hopes to both get a better understanding of its visitors whilst also creating a system for highlighting visitor generated content to other visitors.

The goal is to meaningfully make use of the data created and 'messages' left by our visitors to inform future exhibitions, interpretation and programming. We will also make available, in a public space or spaces, visualisations and infographics which will be presented to our visitors, engaging them in the process and ensuring the project remains transparent. There will be an opportunity for visitors to help us make decisions, vote on objects to be released from stores and have a deeper understanding of their role as participants in the Museum with a public collection.

**Holly Hou**, PhD Candidate, Loughborough University

***Museum visitors and networked images: communication in digital engagement***

The popularity of social media via mobile applications encourages museum visitors to use their personal device in documenting and sharing the museum experiences online. A substantial number of photographs are uploaded and shared daily by 700 million Instagrammers (Instagram, 2017). Since 2013, more than half of all visitors take a photo in British Museum (BM) and the BM is also listed as top 10 most geo-tagged location in the UK on Instagram (Miles, 2016; McDonough, 2017). Social media presents more opportunities of transforming visitors' museum experience dynamics, in the way of photo sharing. On the other hand, visitor photography creates new ways of understanding visitors' experiences from their perspective. It is a valuable source of data that can be analysed to investigate their visiting experience, including visitors' interpretation of objects, personal connection, and the flow of a visit.

In recent years, museums have increasingly widespread use of social media on engaging the public in their collections, exhibitions and programming, but relatively little attention has been paid to this practice. In this presentation, I focus on visitor engagement with museum objects from the perspective of visitors, in particular how they engage with objects through social media application of Instagram. The research draws on a case study of Instagram posts of Horniman Museum and Gardens, using visual content analysis to frame, explore and interpret visual and text based posts by visitors, as part of their experience. Moreover, I investigate the ways visitors are using networked image (photographs taken by visitors and posted online) in different museum visiting stages, and examine the impact of networked images contributing to museum visitor experience.

Exploring the interaction of this online and offline activity, this study is conducted via service design methods: observation, in-depth interview, and customer journey map. It will discuss the different roles museum networked images are playing in stages of before, during and after visiting. Findings will include specific insights for museum practice and understanding in terms of deepening communication, engagement, and interaction more broadly.

**Q&A**

**11:45-12:30 WHY? Breakout Session 4 [West Foyer]**

**PUBLIC ACCESSIBILITY AND ENGAGEMENT**

**Trudie Cole**, Head of Access & Participation, National Museum of the Royal Navy, and **Holly Crossen-White**, Research Fellow, Bournemouth University

***When Digitisation met Co-curation, Or Did It? Discussions about if and how digitisation aids public accessibility and engagement***

The curation of digital assets is a young discipline. As such this practice throws up many questions particularly around how digital assets are used and collected. This session explores these questions through a conversation between staff from The National Museum of the Royal Navy (NMRN) and Bournemouth University, as museum practice and university research come together.

Central to this discussion is the experience of the end user or visitor. Research undertaken by Bournemouth University highlights how little thought has been given to the end user with raw enthusiasm driving many projects. This is a natural response to a changing world where people increasingly look online for information and was reflected in the recent DDCMS report, Culture is Digital. In this report DDCMS highlighted the importance of digitisation but with the caveat that content needs to be compelling. A 2015 study by Bournemouth University



indicated that only 40% of museum visitors sampled had used digital archives, raising the question, what is compelling content ?

Latterly NMRN has rapidly increased its digitisation programme and plans to develop public engagement through digital assets as part of its forthcoming SeaMore project. This work raises a number of questions: how are assets accessed and used by visitors; how will future wholly digital assets (e.g. YouTube videos and blogs) be collected? This blurs the disciplines of digitisation and co-curation and poses yet more questions: how will curators structure meaningful access ; how will the process evolve and be flexible enough to meet the as yet to be determined needs of future visitors?

This will be a lively 15 minutes conversation raising as many questions as it answers with the dialogue providing a framework for the work that follows. It will also seek contributions from other organisations to join the debate.

**Discursive session plus Q&A**

#### 11:45-12:30 WHY? Breakout Session 5 [Samsung Digital Discovery Centre]

##### **DIGITAL LEARNING**

**Ed Lawless**, Education Manager: Samsung Digital Learning Programme, British Museum  
*Life as a nine-year-old digital learning programme in 2018*

The British Museum's Samsung Digital Discovery Centre (SDDC) hosts over 22,000 visitors per year in its programmes of schools, families and teens activities. As a learning programme with strong participatory and creative elements it both harnesses and creates a broad spectrum of digital data. Established in 2009, the SDDC has used, combined, created and maintained tens of thousands of different pieces of digital content.

In this talk Ed will share what it means for the SDDC to successfully engage its audience using digital technology, both remotely and in-gallery. He will discuss how this is achieved through integrating emerging technology within the SDDC's existing programming in a structured, sustainable and strategic way.

A review will be made of how the SDDC makes use of varied digital content created by the Museum, from reconstruction videos and photography to 3D scans and microsites. Also considered will be how it utilises a range of numerous external online platforms. Some, such as Elucidat and Zoom, are used for hosting and deliver aspects of its activities. Others, such as, SmugMug and Sketchfab, are used for publishing and disseminating content created by visitors within activities. A third and final group are used in an infrastructural capacity, such as Dropbox and SurveyMonkey. The presentation will cover how the SDDC has overcome security issues including sharing young people's data with their consent and how it has traversed and adapted to restrictions imposed by internet filters in schools.

Ed will address how different programming formats allow the SDDC to use emerging technology sustainably. He will comment on how the SDDC uses a methodology of testing and refining in a quick, agile and iterative fashion at a small scale before incorporating them into larger and more stable programming formats with longer iterative cycles.

**Presentation and practical session, plus Q&A**

#### 11:45-12:30 WHY? Breakout Session 6 [Claus Moser Room]

##### **DPC Training Module 1 - Planning for digital preservation: standards and maturity modelling**

**Sharon McMeekin**, Head of Training and Skills, Digital Preservation Coalition

This session is the first of three lectures aimed at those just beginning their digital preservation journey over the course of three sessions. Each session is standalone and can be taken independently of the others.



**12:30-13:45 LUNCH [served in the Clore Foyer East and West]**

**MARKETPLACE, Clore West Foyer**

Curious about the kind of digital services out there? Come and talk with representatives from tech companies Libnova, Preservica, MirrorWeb and Arkivum, as well as from our HOW? Keynote speakers, Samvera.

**13:00 – 13:45 Lunchtime Surgeries (drop-in session)**

Got some questions? Come and ask today's expert speakers who will be on-hand in the West Foyer

**13:45-14:15 KEYNOTE 2 – HOW? [BP Lecture Theatre]**

**STARTING AT THE BEGINNING: CREATING A CITY OF CULTURE DIGITAL ARCHIVE**

**Julie Allinson**, Lead Developer, CoSector – University of London, and **Laura Giles**, City of Culture Digital Archivist, University of Hull

In 2017 Hull was the UK City of Culture. The University of Hull was a principal partner throughout that year, and contributed in many ways, including support for the creation of a digital archive. This talk will share a behind the scenes look at the project from two perspectives, that of the archivists and that of the technical team: both perspectives have been integral to working through precisely what the archive will be and how it will be built, and are of relevance to the wider museums and digital preservation communities.

The City of Culture archive aims to present the business records of Hull 2017 alongside creative and participatory aspects of the year and material relating to the research and evaluation of the year. With no model to follow the project has provided an exciting opportunity to develop a blueprint for both the processes and the software systems to curate and preserve the incredibly wide and varied materials generated as part of City of Culture.

The initiative has grown into a collaborative project between the University on the archives side and Cosector, University of London, and Cottage Labs on the technical side. The archivists sought a solution that could integrate the Archivematica digital preservation system into their existing collections management and online catalogue workflow and systems. The technical partners brought to the project their experience and knowledge of the open source Samvera digital repository platform to enable a flexible and adaptable approach to creating the archive.

This talk will explore the benefits of starting at the beginning when creating such an archive and using community-oriented Open Source software to build a solution to both preserve and provide access to digital resources. It will also reflect the combined professional skills and knowledge of the experts who will curate it.

**14:15-15:00 HOW? Breakout Session 7 [BP Lecture Theatre]**

**DOCUMENTATION**

**Tanya Szrajber**, Head of Documentation, British Museum  
***How to create and manage digital content for museum collections***

Whilst emphasis is often placed on how to present, disseminate, share or preserve digital content concerning Museum collections, the creation and management of the underlying data are processes which are often taken for granted. Specific collaborative digital projects may focus on improving the research potential of the data, most data remain outside such lofty spheres. The challenge to Documentation specialists is to provide a framework to allow and encourage curators and other academics to record their knowledge into a structured database, as well as in the more traditional forms of publishing such as articles and exhibition catalogues.

The approach taken by the British Museum is used as an example of how to strive towards the goal of creating and maintaining high quality records, in terms of knowledge content and standardisation. The database has over



2,300,000 object records, covering 4,207 229 objects. The digitisation project has been running for over thirty years, and included four main database systems, each one more sophisticated than the previous one. Initially, records were created solely by Documentation staff, using Accession Registers, record cards, occasionally published catalogues, and the objects themselves, and the information in the older sources was often outdated and very perfunctory. As the project developed and curators and also more specialised Documentation staff were recruited, with knowledge of the specific collection areas they were recording, the record standards improved dramatically. This resulted in a two-tiered system, with some data very basic and others of the highest order.

The issues facing the Documentation Section were numerous: to develop terminologies suited to the very varied Museum collections, which curators would be comfortable with; to encourage very busy curators to devote time and effort to creating and editing records, a time-consuming task with less kudos than an exhibition, project or publication; and to oversee the growing database. These are explored in the presentation.

**Jason Webber**, Web Archive Engagement Manager, British Library  
***Challenges and Opportunities of Collecting the UK Web Space***

The UK Web Archive (UKWA), a partnership of all six UK Legal Deposit Libraries, has been collecting websites since 2005, initially only on a selective basis but since 2013 on a vast scale. Typically, this involves crawling the internet, identifying UK based websites and capturing them for long term storage.

The challenges for access and engagement are many and include:

- How to encourage use of a new medium
- How to get meaningful results from, potentially, millions of results
- How to cite web archives in formal research
- How to use the potential of big data analysis

The talk will address these points and demonstrate how the UK Archive is working towards finding solutions to them.

**Jon Ablett**, Acting Senior Curator in Charge, Mollusca, Natural History Museum; **Dr. Ben Rowson**, Senior Curator: Mollusca, and **Jim Turner**, Digital Imaging & Access Developer, Amgueddfa Cymru - National Museum Wales  
***Great British Mollusca Types: a Union Database for the UK***

The UK's natural history collections are distributed across the nation's National, regional and other Museums, while specialist expertise is increasingly concentrated in London. The skills to work with historical natural history collections are a dying art in UK museums. Many curators lack the expertise or resources to attend to their research and curation and we risk many collections, most importantly type material, being lost to the scientific community. Type specimens are the individual specimens from which a new species or subspecies is first described and given a new scientific ("Latin") name. The name, and that of its author, with the date of first publication, remain fixed to those objects and such material is usually considered among the most scientifically and historically valuable material in a natural history collection.

Smaller museums are vulnerable to spending cuts and may face additional local pressures. Many such museums hold type material of global importance, whether from the UK itself or from its imperial and expansionist past. Here it may risk being overlooked by the scientific community, neglected, or even lost given contemporary priorities.

AC-NMW and NHMUK received funding from the John Ellerman Foundation to address this loss. The funding was used to develop a jointly held, universally accessible database and online resource connecting the Mollusca collections of nationals and other large museums for the first time. We worked with staff at seven partner museums in six UK cities, each lacking a malacological curator. The training focused on building confidence in recognising, researching and interpreting the molluscan type specimens in their collections. The broader aims of this project were to strengthen and develop curatorial skills in specialist areas that could be transferable to other historically important natural history collections.

**Panel discussion / Q&A with speakers and keynote. Chair: William Kilbride, Digital Preservation Coalition**



**14:15-15:00 HOW? Breakout Session 8 [Stevenson Lecture Theatre]**

**CONSERVATION**

**Patricia Falcao**, Time-based Media Conservator, Tate,  
*Preserving Digital Art at Tate*

Artworks with digital components started to make their way into the Tate Collection in the mid-90s. These were initially audio or video components, but since then digital components are part of almost all the time-based media artworks in our Art Collection. We categorise artworks that use the media of film, video, audio, software and performance as time-based media and Tate has had a conservation section specialised in this area since 1998.

Over this period, Time-based Media Conservation has approached the preservation of these works as opportunities for research in the preservation of the different media. We have used the acquisition and display moments to develop our knowledge of the technical aspects of these works, to increase our understanding of the production processes and the different ways in which artists use the different media, the relation of the media to the artworks as well as the technologies available for preservation. All these aspects are essential to define the object of conservation, and to understand what needs to be preserved. In 2018 the Tate Collection owns over 600 artworks with digital components and we are acquiring about 30 new works per year. This trend is likely to increase, as is the number and type of technologies conservation will need to support.

This paper will address these multiple aspects from the view of the Time-based Media Conservation Department at Tate, and we will discuss the strategies that we have put in place, and how we were able to develop them. This will highlight the importance of the research currently taking place both within Tate, with artists and their teams and with external experts on different fields.

**Tom Ensom**, Digital Conservator, Tate / King's College London  
*Preserving Software-based Art: Case Studies from the Tate Collection*

Following on from Patricia's presentation, I will focus in on the challenges presented by software-based art and discuss a set of case study artworks from the Tate collection. When a software-based artwork is displayed, a constellation of components are brought together in a process akin to the staging of a performance. During a software performance, encoded instructions are executed by a host computer in an appropriate technical environment, resulting in the tangible experience of the gallery (or perhaps website) visitor. When not on display, the artwork must be managed as a theoretical construct linked to a set of physical and digital components in storage, which can be used to restage the work in the future. These components may be vulnerable to loss and obsolescence if not carefully monitored and where necessary, replaced or migrated. The role of the conservator of software-based art then, might be seen as managing the restaging of software performances in an evolving socio-technical environment, while maintaining the identity of the work.

In this presentation I will explore how the relationship between the identity of an artwork and its material constituents influences the way in which change is managed when preserving software-based artworks. I will also discuss how this places emphasis on different forms of documentation, which help ensure not only that future software performances can be achieved, but that a record of past performances is captured. This presentation reflects on outcomes of my practice-led PhD research, funded by the Arts and Humanities Research Council, which explored documentation strategies in support of the long-term preservation of software-based artworks.

**Laura Chaillie**, Conservator, UCL / Horniman Museum & Gardens  
*Smartsourced Conservation: Overcoming the Limitations of Smartphone Technologies*

The potential of smartphones has inspired a huge volume of optimistic discourse in the academic literature of a broad range of disciplines. Except, that is, heritage conservation. Why this disparity? Despite this much touted promise, are smartphones simply ill-suited to conservation activities? This dearth is certainly indicative of either an industry-wide reluctance or some kind of barrier inherent in the technology itself. However, given conservation's willingness to adapt new tools and utilize all available resources, the latter seems much more probable.

Despite some publicized one-off projects (which have been almost entirely abandoned), the widespread adoption of smartphones in heritage conservation is stymied by both 'hard' and 'soft' components. Mobile handsets are composite objects that consist of numerous independent devices manufactured by different makers under a heavy



cloak of industry secrecy. Furthermore, mobile software is a state of near constant flux as developers attempt to stay current and compatible with the full range of new systems and structures. All this fluidity means that broad stroke recommendations are virtually impossible. However, this does not completely preclude the use of smartphones in heritage conservation, it merely requires that we resituate our understanding of what kind of tool a smartphone is.

This short presentation will outline the inherent limitations which are currently preventing a unilateral set of recommendations for the use of smartphones in various heritage activities before suggesting a new approach to resolve many of these challenges. In this model, a mobile handset is not only a tool to be wielded, it is a ubiquitous platform that enables a large number of people to work collectively.

This is a shift in the ideation of what a smartphone is, decentralizing it and reimagining it in terms of what it makes possible rather than what it can do.

**Panel discussion / Q&A with speakers. Chair: Glenn Cumiskey, British Museum**

#### 14:15-15:00 HOW? Breakout Session 9 [Sackler Rooms A & B]

##### **DIGITISATION AND PUBLIC ACCESS**

**Kevin Bacon**, Digital Manager, Royal Pavilion & Museums, Brighton & Hove

***From online collections to digital publishing: learning through missteps at Royal Pavilion & Museums***

Since it began digitising its collections in the early 2000s, Royal Pavilion & Museums (RPM) has faced an ongoing problem: how do we take an eclectic mix of buildings and collections rooted in civic Victorian ambitions and make them relevant to an online audience?

This presentation will show how RPM has had to develop a variety of evolving tactics to address this problem -- with plenty of failures on the way. It will show how adopting open licensing and the use of a publically accessible digital asset management system has enabled us to develop a shared resource, Digital Media Bank, which allows us to tailor content for use by multiple audiences. It will also discuss how the success of our blog has encouraged us to prioritise the creation of search engine optimised content that can create value over the longer term.

Finally, I will argue that digitisation needs to be seen as more than an extension of collection management activity, and should be seen as part of a wider digital publishing and preservation programme.

**Caitlin Peck**, Curator, Museum of East Anglian Life

***Eating an elephant: Mass digitisation through social volunteering***

This presentation will explore the potential of 'social' or 'crowd' volunteering to power digitisation projects by examining a live project at the Museum of East Anglian Life.

This January, the Museum of East Anglian Life kicked off Search for the Stars, a collections digitisation project with a difference. The aim is common: to transfer all 40,000 collection object records from index cards onto a web-based system and create an online catalogue. This process will improve security and searchability and, perhaps most importantly, get our records out of filing cabinets and into the public domain. As a new ACE National Portfolio Organisation, engaging our audiences with our collection is a particular priority. This comprehensive record review also provides a unique opportunity to identify new 'star' objects.

East Anglia is rural and lack of transport and mobility difficulties can lead to isolation, reduced opportunities and barriers to visiting the museum. This project addresses these challenges through both process and output. The online catalogue will enable people across the region (and beyond) to engage with our collection, linking up to search engines and Wikipedia to maximise accessibility. It is the process, however, which makes this project stand out. Search for the Stars is powered by volunteers and pioneers a new model which we are calling 'social volunteering'. The number of volunteers involved represents a step change for MEAL: 97 in the first four months.

Success is measured not only in the number of volunteers, but in their diversity. Our social volunteering model has three strands, each of which has significantly broadened our demographic to include more working age, student and



young volunteers. We are now reaching volunteers across our rural region (and across the country and world!). The first strand is remote or 'from home' volunteering, which, to date, has attracted 40 volunteers. The second is group volunteering, taking one-off sessions to student and corporate groups, so far including West Suffolk College and the University of Sheffield. The third is 'out of hours' sessions, coordinated through the social app MeetUp. Not marketed as volunteering, these sociable get-togethers focus as much on chatting about the collection as digitising it and have encouraged intergenerational dialogue.

All this work is paying off. We are digitising 400-500 records each month, with the rate increasing alongside volunteer numbers. This presentation will explore how we have developed and applied the social volunteering model to yield big results with low resources. It will look at the practicalities of the project and provide realistic, replicable solutions for museums looking for new ways to generate volunteer power or climb their digitisation mountain.

**Q&A**

#### 14:15-15:00 HOW? Breakout Session 10 [West Foyer]

##### **HULL CITY OF CULTURE WORKSHOP**

**Stephanie Taylor**, Senior Consultant, CoSector – University of London, and **Chris Awre**, Head of Information Services, University of Hull

***Finding your way to a digital solution: identifying paths and options***

In 2017 Hull was the UK City of Culture. The University of Hull was a principal partner throughout that year, and contributed in many ways, including support for the creation of a digital archive. The initiative has grown into a collaborative project between the University on the archives side and CoSector, University of London, and Cottage Labs on the technical side. The project is very much led by the vision and expertise of the archivists, with other partners developing the technical infrastructure to support their vision and expertise.

In this workshop, we hope to share our own experiences of this project and also the many repository projects we have both been involved in throughout our careers. The session will be a mixture of talk from the workshop leaders and facilitated discussion. We will go through the various paths available when setting out to create and/or implement a digital solution. We will be exploring the pros and cons of each through discussion, and covering both commercial and open source options.

Everyone will have the chance to start building up their own requirements document, which will be unique to them, their content, their organisation and their users. We aim to make sure that everyone is able to leave the workshop with a basic outline, which can then worked up into a more detailed plan once everyone is back at base.

Please feel free to bring along your questions and experiences to share.

**Q&A**

#### 14:15-15:00 HOW? Breakout Session 11 [Samsung Digital Discovery Centre]

##### **DIGITAL IN COMMUNITY-LED CURATION**

**Paul Stewart**, Research Associate, University of Teesside, and **Elinor Morgan**, Senior Curator, Middlesbrough Institute of Modern Art

***Digital in community-led curation: The Middlesbrough Settlement, a North East context.***

How can community-led curatorial practices benefit from digital innovation? This presentation will provide an insight into a Creative Fuse Innovation pilot in partnership between, Middlesbrough Institute of Modern Art (MIMA) and Teesside University, and how the cross discipline work ethic between academic research, community programming goes to support community-led curation through digital thinking.

MIMA is addressing a civic agenda to reconnect art with its social function and to work with constituents as a useful



museum. It works with constituents (active users with reciprocal relationships with the institution) to shape the spaces, ethos and programmes of the museums. Now in its third year of this vision, and as part of Teesside University, MIMA is testing new methodologies and approaches with communities in Middlesbrough through a resident-led creative programme that aims to address the needs and interests of the community on their terms.

The programme is evolving through Design Thinking Workshops with residents, and by using digital mapping and co-produced design work. The paper will demonstrate how this commitment to meaningful community-led work is approached in a new off-site project, and how digital tools are used to develop co-production in this creative work.

This project has offered demonstrations of where and when the digital does not benefit communications and programming. The work considers how we might imagine the digital as something integral, rather than separate from our physical selves. How might it be used in more democratic and less alienating ways, with people of all backgrounds and ages.

The current work considers digital as part of the community interactions. This assertion iterates that digital curation could be seen as engaging with our community's everyday environments. The curatorial approach is considering using the digital sphere as a space for imagining new connectivity with communities, for creating and commissioning work.

## Q&A

### 14:15-15:00 HOW? Breakout Session 12 [Claus Moser Room]

#### DPC Training Module 2 - Developing a basic infrastructure for digital preservation: bit-level preservation

**Sharon McMeekin**, Head of Training and Skills, Digital Preservation Coalition

This session is the second of three lectures aimed at those just beginning their digital preservation journey over the course of three sessions. Each session is standalone and can be taken independently of the others.

### 15:00-15:15 BREAK [water served in the East Foyer]

### 15:15-15:45 KEYNOTE 3 – WHAT NEXT? [BP Lecture Theatre]

#### CULTURE IS DIGITAL

**Valerie Johnson**, Director of Research & Collections, The National Archives

The #CultureisDigital project was launched at the end of March 2018 by the Rt Hon Matt Hancock, Secretary of State for Digital, Culture, Media and Sport. The project has come out of the Government's Culture White Paper commitment to review the digitisation of public collections and enhance the online cultural experience.

As one of the commitments from the report, <https://www.gov.uk/government/publications/culture-is-digital>, The National Archives has been asked to work with a broad reach of cultural sector representatives in order to develop a new strategic approach to the digitisation and presentation of cultural objects, an approach which might, for example, include the development of common data standards, a strategy for content digitisation, issues of sustainability, possible economic models to fund digitisation, and skills development.



**15:45-16:30 WHAT NEXT? Breakout Session 13 [BP Lecture Theatre]**

**PUBLIC ACCESS, DIGITAL EXHIBITIONS AND DISPLAY**

**Gabriella Warren-Smith**, Freelance Curator in Digital Culture  
*The Neurological Effects of the Digital Age in the Museum*

Our current lifestyle is strongly influenced by digital technology engagement, and it is beginning to effect the way that we think and behave. Most relevantly to museums, we are evolving to respond to information and its display differently. My presentation will consider the curatorial steps that adapt to these changes in our behaviour, with the aim to create experiences that ensure visitors feel focussed and engaged.

If we are to successfully engage with museum visitors via digital technology, it's important to consider how the brain is responding to the digital age. My presentation aims to increase knowledge of how our brains are changing, focussing on the core themes of memory, multitasking and attention spans.

My research is primarily concerned with how learning can be optimised, addressing the conference focus to explore digital technology's 'value for tomorrow'. Instead of focussing on the application of digital technology itself, my focus will be on the visitor and how they respond to different learning environments and technologies, reframing it to exhibition experiences.

**Rachel Bateson**, Touring Exhibitions Co-ordinator, and **Sheldon Paquin**, Exhibition Content Developer, Science Museum Group

*Exhibition Blueprint Packs: Touring contemporary science exhibitions digitally*

The Science Museum Group has adopted a new way of sharing our innovative contemporary science exhibitions through digital Exhibition Blueprint Packs, which allow for updates as well as reducing the costs associated with insurance, transport and environment and security controls. This format of sharing exhibitions opens new doors for museum audiences to engage with content that is otherwise inaccessible.

Our Exhibition Blueprint Packs offer contemporary science exhibitions with an unpanelled level of flexibility. We currently offer three exhibitions in this format: 3D: Printing the Future; Our Lives in Data; and Superbugs: The Fight for Our Lives. We share the content, concepts, designs and meticulously research stories, but nothing physical. This format allows venues to update and reinvent the exhibition each time. The host institutions are free to rework the content, add local examples and change the visual aesthetic so that the exhibition fits their space and audiences. Suggested objects in the exhibitions are not from the SMG collections, allowing host venues to source them from partners in local science, academic and industrial organisations, creating new relationships that can last long after the exhibition has finished.

In this talk, our Contemporary Science team will discuss how they develop content that is both appropriate for London audiences as well as flexible enough to be customised by venues from across the country and across the globe. The Touring team will share some stories highlighting the success of this innovative format. Our session will provide real examples of how the Exhibition Blueprint Pack has been used. to share content across SMG sites as well internationally.

This format offers opportunities for museums to digitise their collections, explore new methods of interpretation beyond presenting collections objects, and present contemporary issues in a format that can effectively respond to a rapidly changing world.

**Panel discussion / Q&A with speakers. Chair: William Kilbride, Digital Preservation Coalition**



**15:45-16:30 WHAT NEXT? Breakout Session 14 [Stevenson Lecture Theatre]**

**3D SCANNING TECHNOLOGY**

**Benjamin Moreno**, Owner, IMA Solutions & Anatomikmodeling SAS  
*Egyptian mummies entering the Digital Age: State-of-the Art Perspectives*

Over the last ten years – starting with the development of the exhibition Mummy: The Inside Story – dozens of Egyptian human and animal mummies from the British Museum’s collection underwent X-ray Computer Tomography acquisitions (CT scan). These scientifically proven volumetric digitisations not only provide an insight into ancient diseases and mummification practices, but are also a unique opportunity to share with the audience immersive and pedagogic experiences through exhibitions containing accurate information.

In this talk, we will discuss how scientific research conducted on the mummy collection by the Department of Ancient Egypt and Sudan at the British Museum made it possible to produce digital content used in international touring exhibitions, displaying 3D technologies (including 3D visualizations and 3D printing).

Once the content has been generated and curated, big quantity of heterogeneous data needs to be managed and secured to ensure their digital preservation and future use. We will therefore focus on good practices for data management, data reliability and security, taking concrete examples that can be applied by any sized museums and cultural institutions. We will also discuss how certifications and good practices from the medical and aeronautical fields can be applied to heritage: equipment’s certifications, file formats and their life cycle, non-destructive iterations, data redundancy, IT infrastructure and architecture can provide reliable future access to data.

**Jude Dicken**, Collections Information Manager and **Allison Fox**, Curator: Archaeology, Manx National Heritage  
*Capture the Castle, Capture the Cross: how we took engagement on the Isle of Man to another dimension with 3D digital content*

The Isle of Man lies in splendid isolation in the Irish Sea at the heart of the British Isles. Even so, here at Manx National Heritage we’re always on the digital lookout for new ways and new partners to create meaningful content that excites and says something new.

Could we apply 3D technology to give all of our visitors the experience of climbing a hundred spiral stairs to the top of a medieval castle? Could this same project also give our Properties team the virtual tools to survey, assess and manage one of Europe’s most complete medieval castles? Is it possible to accurately capture the 1,000-year-old surfaces of a corpus of over 200 crosses and carved stones located in churches, museums, in the countryside and by a traffic roundabout? Can 3D technology satisfy the diverse demands of audiences both here and online such as international academics, conservation professionals and the curious public?

The answer to all of the above is yes. This presentation will reflect on how we did it and what we wanted the 3D content to do for us as well as our audiences. We needed the content to be a digital memory and not just a passing trend. It will also highlight how a small heritage agency, with no in-house digital team, can curate and use digital content by opening-up and choosing to work creatively with digital practitioners. The project to capture the castle involved working with a commercial company delivering an in-gallery 3D interactive. To capture the crosses we are partnering with a university to give remote access through a website and 3D content platform. Capturing 3D content has been for us new, challenging, frustrating but ultimately rewarding.

**Panel discussion / Q&A with speakers. Chair: Glenn Cumiskey, British Museum**

**15:45-16:30 WHAT NEXT? Breakout Session 15 [Sackler Rooms A & B]**

**CREATING DIGITAL MEMORIES FROM LIFELOGGING AND QUANTIFIED SELF DATA**

**Frank Hopfgartner**, Senior Lecturer in Data Science, University of Sheffield Information School, and **Cathal Gurrin**, Associate Professor, School of Computing, Dublin City University

With more and more wearable devices and smartphone apps being released that are capable of unobtrusively recording various aspects of our life, we are currently witnessing the emergence of a new trend referred to as self-tracking or lifelogging.



A prominent movement that promotes this trend is the so-called Quantified Self (QS) movement. QS focuses on two dimensions of the impact of self-tracking. First of all, it concentrates on gathering personal information by quantifying and analysing personal data. This is expressed with the slogan “self-knowledge through numbers”, the main motto of the movement.

Secondly, the movement promotes the idea of sharing track records of certain aspects of one’s life with a worldwide audience. Given the diverse background of self-trackers, QS data sharing opens new opportunities for the creation of detailed and diverse snapshots of daily live in the 21st century, hence creating a digital memory that is worth preserving for future generations.

Extending on discussions following a talk on Archiving Quantified Self data by Wolf, Hopfgartner and Gurrin at the National Archives of The Netherlands in November 2017, this workshop aims to discuss the challenges and opportunities deriving from the digital preservation of quantified self data, and what this means for museums as memory institutions.

#### 15:45-16:30 WHAT NEXT? Breakout Session 16 [West Foyer]

##### **CULTURE IS DIGITAL DIGITISATION TASKFORCE**

**Valerie Johnson**, Director of Research & Collections, and **Susannah Baccardax**, Head of Programme Management, The National Archives

Discursive workshop session following Valerie’s Keynote. The Taskforce would like to engage with the delegates at the Museums and Digital Memory conference, to explore some of these themes and ask for feedback, comment and expectation around the work of the Taskforce.

#### 15:45-16:30 WHAT NEXT? Breakout Session 17 [Claus Moser Room]

##### **DPC Training Module 3 – Establishing the Importance of Digital Preservation: Advocating for your programme and creating policy**

**Sharon McMeekin**, Head of Training and Skills, Digital Preservation Coalition

This session is the last of three lectures aimed at those just beginning their digital preservation journey over the course of three sessions. Each session is standalone and can be taken independently of the others.

#### 16:30-17:00 Closing Plenary [BP Lecture Theatre]

**Dr Maria Economou**, Senior Lecturer in Museum Studies, Information Studies, School Of Humanities, and Curator, Hunterian Museum, University Of Glasgow

Maria will be delivering the closing plenary and will synthesize the diverse topics that will be covered during the day. She will also highlight issues and challenges for anyone working in this field, as well as food for thought for cultural heritage and digital preservation professionals and researchers who work on preserving digital cultural memory for the future.

As digital transforms every aspect of our lives, it inevitably touches on all core museum activities, whether it is conservation and documentation of collections, new ways of capturing information about them (such as 3D scanning), or sharing them with diverse audiences through exhibitions, public engagement, or learning activities. In addition, the increasingly participatory museum communication models are opening up opportunities for co-curation and co-creation of cultural materials with different communities and groups. All of this valuable and continuously growing digital activity and outputs require dynamic and systematic strategies for the selection, curation, and long-term preservation of this material. Although there is a lot to learn and gain from existing good practice and the important work of organisations like the Digital Preservation Coalition, there is no solution that fits all cultural institutions. This is where this workshop can offer a significant contribution, as it offers a multi-disciplinary forum for sharing experiences and discussing approaches, successes and lessons learned.