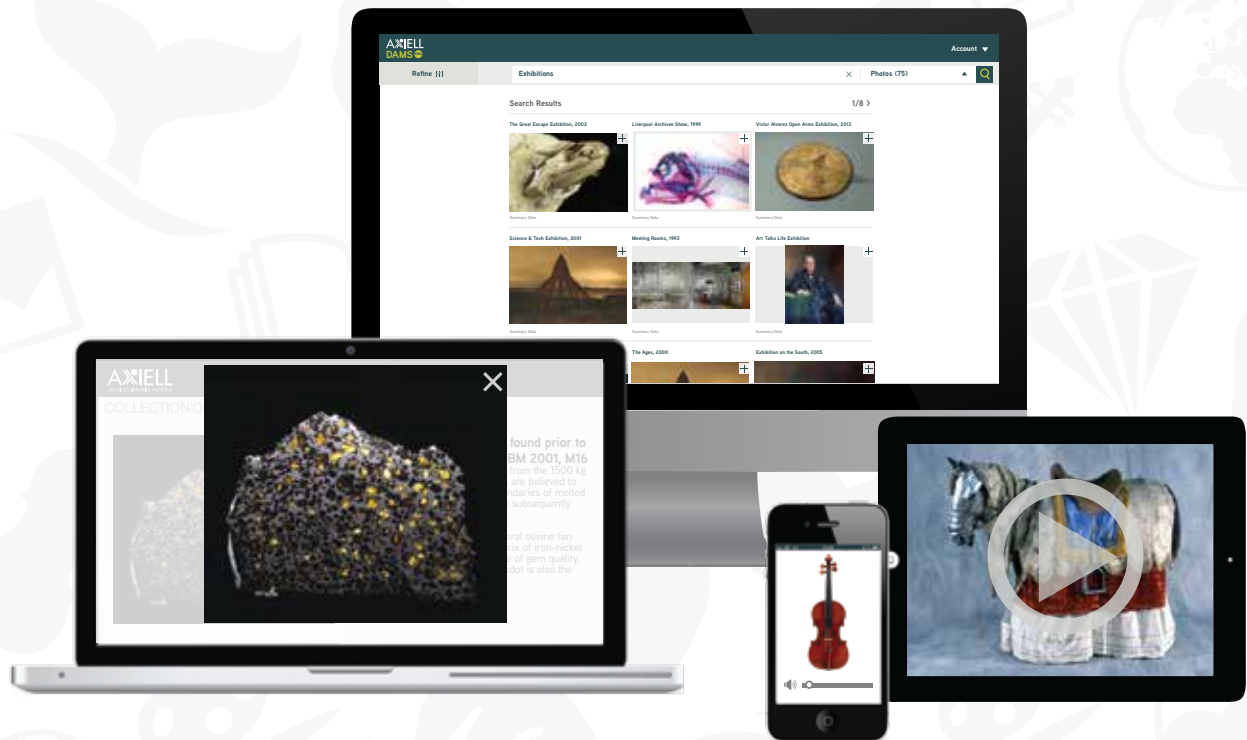# Digital Transformation in the Museum Industry

MUSEUMS REPORT 2016

AXIELL

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CONTENTS

THE STATUS OF DIGITAL TRANSFORMATION IN THE MUSEUM INDUSTRY 2016

AND USING DIGITALISATION TO INCREASE VISIBILITY

— INTRODUCTION —

Museums have a long history going back to the 3rd century B.C., when the first known museum was opened in the University of Alexandria in Egypt. Since then, the museum culture has spread across the world sharing how humanity has survived in its environment over centuries.

Museums house hundreds of centuries' worth of material that is of cultural, religious, political and historical importance. So it is no wonder that some museums are turning to digitisation to help them manage their collection and promote its value to visitors.

This digital transformation can take many forms, from enabling museum visitors to use smartphones or tablets throughout the site to enhance their experience, to digitising the collection and making it available online, to engaging with people before or after their visits via online channels.

This report draws on the views of more than 70 professionals working in museums across the world to explore the digital strategies of today's museums and how they link to visitor engagement plans and focus areas for investment.

METHODOLOGY REFERENCE FOR SURVEY

71 DECISION MAKERS TOOK PART IN OUR STUDY
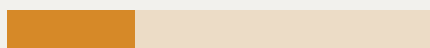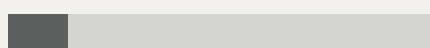
30% Technical/digital

29% Senior management and leadership

21% Curatorial/educational

14% Strategic /advisory/consulting

6% Other (design & production, visitor-facing etc.)

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Museums today need to create a sustainable future. This means taking care of their core assets and collections, but also ensuring the museum continues to be relevant and valuable to future generations. Technology therefore has a vital role to play in reaching the connected consumer and researcher.

Cultural institutions like museums, libraries and archives can hold vast amounts of information and, according to the Museums Association, there has been a tremendous effort over the last decade to make more cultural heritage data digitally available for everyone to access.

However, digitisation can be a costly process. An ENUMERATE report based on a survey of cultural heritage institutions shows they only intend to digitise 60% of their collections, due to cost. Even our recent survey reveals that 60% of respondents are in development/still to come. Only 20% said their digital strategy is either not a priority or lying forgotten in a drawer.

The importance of aligning digital strategies to the wider institution seems to be understood, with more than half (53%) of our survey respondents stating the strategy is either related to, or integrated into the institutional strategy.

Striking the right balance

The article, Towards the sociocratic museum discusses how museums could radically change and the role that digital can play. "A sociocratic museum is one that is radically democratic in such a way that it impacts on society, which arguably goes beyond simply a 'social museum' that is expanded by digital programming and a participatory ethos."

The article goes on to state that the context is paradoxical and museums are being pulled in two directions. They are tempted by the consumer and corporate benefits that come with the use of technology, but their existence is to preserve heritage in its physical form. That means there has to be a good balance between using technology to serve the community and maintaining its existence and attraction as a museum.

John Russick, of the Chicago History Museum, shares in his piece A Place for Everything that he imagines collections reframed in geo-spatial terms, with all objects from a place mapped to multiple locations helping to connect people to objects and places by making them more meaningful. And the more that people feel these connections, the more they can support the long cycle of care.

But to be able to do that, the right structures need to be in place which will be a huge task if you think about it on a global level. This is why it is unsurprising that John deduces that this is a goal that becomes more distant as museums focus on more short-term and quantifiable outcomes.

The influence of consumerism

Going digital is not about installing a mobile app for a service or product, or about digitalising a collection at a museum. It is an end-to-end process that looks at the entire relationship with your audience.

The article, You Don't Need A Digital Strategy, You Need A Digitally Transformed Company, shared that "modern businesses need to disrupt themselves at the very core, empowered by what new behaviour and new technology make possible." Industries need to go over and beyond their primary target audience and look at the bigger picture, of what their audience need. For example WhatsApp was not created by a telco company and Instagram was not developed by a camera manufacturer.

A museum without visitors is like a theatre performance without an audience. Museums need to engage with and serve their visitors whether they are on or off the premises. In order to do this effectively, it's important to understand the interests and desires of target visitors and also the communications channels that they prefer.

It was interesting to see from our research that 86% of museums believe they best engage with visitors at the institution itself. Online also has a valuable role to play, with 44% highlighting the effectiveness of engaging via their website and social media. In fact, 50% of museums have seen an increase in visitor numbers to their websites and a significant 82% have seen an increase in activity on their social media channels.

According to Museums on the Web, social media has been and continues to transform the way people connect and interact with each other, so this increase is not surprising. Resonating with this, Pew Research Center shared that nearly two-thirds of American adults use social networking sites, a nearly tenfold jump in the past decade.

With increased visitors on social channels and websites, it was not surprising to see that around half (49%) of museums have seen a boost in the number of people visiting the institution itself. Only 12% of all respondents said visitor numbers had either declined or remained stagnant, which suggests the blend of online, social and in-person interaction is ideal to drive effective engagement. The museum would need to determine the most cost-effective way to engage with the visitors and continuously evaluate which channels is most effective.

Competing for the same audience

The blog by Colleen Dilenschneider, *Audience Acquisition: The cost of doing business for visitor-serving organizations* highlights that organisations are not investing optimal funding in acquiring audiences. Essentially, museums need to spend money on channels to engage with their audiences, such as advertising, social media and even digitisation.

Pew Research Center conducted a study, A 'Week in the Life" analysis of smartphone users to gain a view into how smartphone owners use their devices on a daily basis. Four smartphone features — text messaging, voice and video calling, using email, and using the internet — stand out as the most widely used out of the eleven apps and features evaluated in this study. Nearly all of the smartphone owners surveyed (89%) use the internet, so museums potentially have an untapped audience if they're not putting mobile websites and communication as part of digital strategies.

Credit: Manchester Museum, UK

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Enticing people to visit museums is only part of the engagement approach. Once people are through the doors, that is when the real adventure starts and where museums have the opportunity to enhance every visitor's experience. A happy visitor will not only recommend the venue to others, but is likely to visit the museum again.

Take for example the Science Museum, which is the UK's most popular destination dedicated to science, technology, engineering and medicine. It has around three million visitors a year and 83% say that they would visit the museum again and almost all (97%) say that they would recommend it to a friend.

But what does visitor engagement typically look like in a museum? Our research shows that smartphones and tablet PCs are featuring reasonably prominently in museum strategies. Visitors can use their own device as a complete guide at 34% of museums, and 40% of those surveyed say they are increasing investment to ensure visitors can use their own devices.

While a quarter of our survey respondents said that they have not yet started leveraging technology such as smart phones and tablets to engage with visitors, only a low 7% felt that they were satisfied with their solutions and saw no need for development.

THE START OF B.Y.O.D. IN MUSEUMS

The transition to BYOD in museums began in 2005 with two disruptive projects. The first project, by a group of students from Marymount Manhattan College calling themselves Art Mobs, produced an alternative audio tour for the Museum of Modern Art (MoMA) in New York City as a downloadable podcast. The project encouraged museum visitors to preload the podcast onto their personal iPods and bring them to the museum. MoMA was quick to respond and take full advantage of this idea, producing its own audio tour podcasts. The second project was Walker Art Center's Art on Call, which delivered an interactive audio tour through visitors' personal cell phones. Both of these projects sought to encourage visitors to use their own personal devices, from MP3 players to cell phones, to enhance their museum experience (Sayre & Dowden, 2007). Visitors' BYOD capabilities took a tremendous leap forward with the release of Apple's iPhone and iPod touch in 2007 and the plethora of smartphones and tablets that followed.

HOW MUSEUMS ARE USING DIGITAL TO ENGAGE WITH THEIR AUDIENCE

Victoria & Albert Museum, London

Photo: Jean-Pierre Dalbéra

Andrew Lewis, Digital Content Delivery Manager at the Victoria and Albert Museum shared in a blog, *Mobile access continues to grow, but has tablet access stalled?*

For visitor information pages, mobile web traffic is approaching the same amount as that coming from desktop. For the site as a whole mobile is now a quarter of all traffic. This is the same as traffic to visitor pages was two years previously. It may mean that the whole site will have that level of access in two years' time, although people actively visiting are probably always more likely to use their mobiles.

Interestingly, it appears tablet traffic may have peaked.

EVALUATING MOBILE TOURS AT TATE MODERN, UK

Emily Fildes and Elena Villaespesa of TATE share in their blog, *Digital blog: Evaluating mobile tours at Tate Britain* some interesting discoveries about mobile.

The usage of mobile devices in the galleries continues to increase. In the last year, 91% visitors to Tate Modern and 86% visitors to Tate Britain brought a smartphone and/or tablet on their visit to the galleries. Approximately 9% of our visitors connect to the free Wi-Fi.

The main reasons people use mobile devices in the gallery are to take photos and share their experience on social media. This is followed by people searching for information about an artist or artwork on the Tate website or other websites. Only a small proportion of the visitors use their mobile devices to download our apps or use the mobile web tours for our displays.

We decided to build a mobile web tour in our content management system, Drupal. It is a very simple interface, which allows an audio or a couple of audio files to be uploaded per tour stop alongside some images. Users can then browse the list of all stops or filter by location or artist name.

The main reason we chose this direction was to create a more sustainable and consistent approach to the mobile offer across Tate's four galleries. Creating bespoke apps is expensive and takes a long time and is therefore not always viable, whereas having a tool which enables colleagues in the organisation to build mobile tours in-house is relatively cheap and quick.

THE MET, USA

Audio guide as a service

Grace Tung, Digital Media Associate, Creative Development, Digital Media at The Met museum in New York shares why audio is so important with its audience and why it has moved its audio files to a web-based platform that visitors can access from any mobile device. The article *Improving the Audio Guide: A Look at Our Visitors* explains what it learnt when it surveyed its visitors in a seven-day period to find out how important and effective audio guides were to its visitors.

It's always tempting to think of an Audio Guide as an old-fashioned product that visitors can hold onto and carry with them throughout the Museum if they feel like it, but this perspective is simply too limited. Instead, the Audio Guide should be seen as a service that is a crucial part of the museum experience and one that combines both the digital and non-digital within the physical space of the Museum.

This perspective, popularly known as "service design," is a way of creating and improving experiences (instead of stand-alone products) in order to better meet visitor needs within a specific context. It requires an understanding of the user's full experience (also known as the "user journey") in a robust way—from initial awareness of the offer to the full impact of the offer.

BRISTOL MUSEUMS, GALLERIES & ARCHIVES, UK
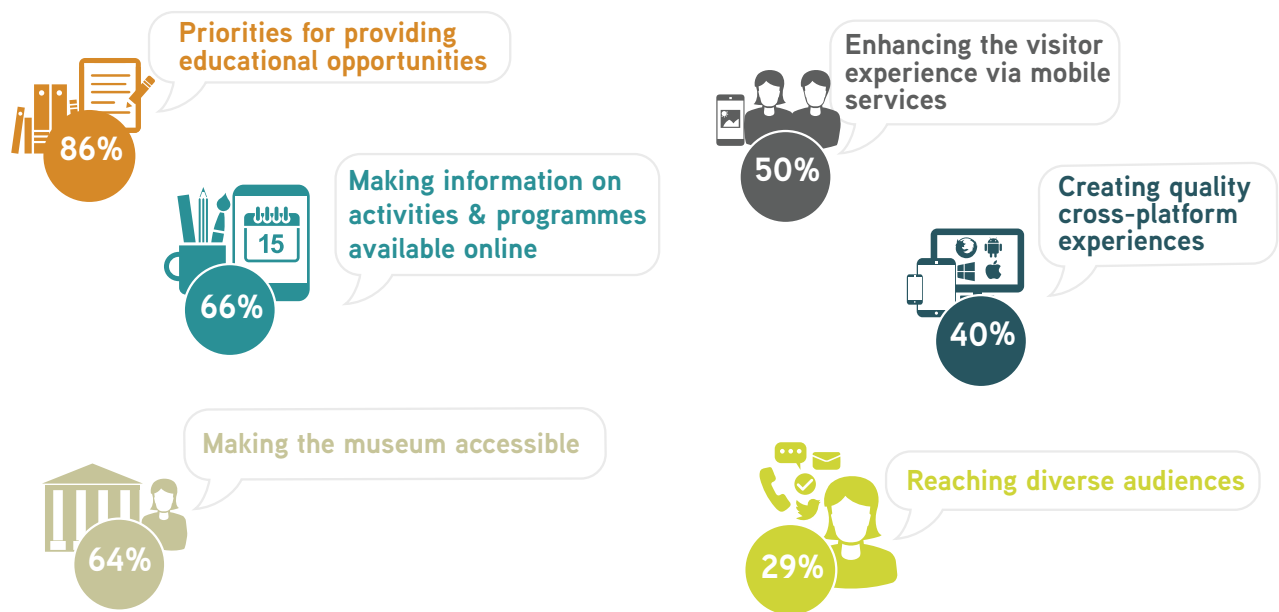
Keeping information up to date

Updating information in a museum is extremely important. Bristol Museums, Galleries & Archives is actively using **Sapphire**, a tool for data import, and has developed a number of different simple applications and work flows.

The one that can be seen as most interesting is the events updating function, which brings information stored in the collections management solution directly to museum visitors.

The museum's marketing staff can use a simple form to create records in the Events module and capture upcoming events and exhibitions at the Museum sites. These events are then displayed live from Axiell's EMu collection management system as rolling presentations on screens in the galleries. If an event gets cancelled, there is another form that allows front of house staff to update the events records by setting them to 'Not Published', thereby instantly updating information that is brought directly to the audience.

All museums will have some kind of strategy for engaging audiences, which can range from the type of opportunities they can offer, for example educational, to creating cross-platform experiences to enhance visits and entice revisits.

Priorities for providing educational opportunities — 86%

Making information on activities & programmes available online — 66%

Enhancing the visitor experience via mobile services — 50%

Creating quality cross-platform experiences — 40%

Making the museum accessible — 64%

Reaching diverse audiences — 29%

The highest priority areas in terms of investment include marketing, online platforms and communication strategies, cited by 54%, with 44% of museums also investing in digitising their collections. Currently, only one in five museums has digitised more than 50% of its collection, yet this approach can aid a museum in receiving donations, since making the collection public is closely tied to educational and research goals.

Engaging with millennials

The article *How the next generation discovers art events around the world* by Jessica Plautz discusses the research that Eventbrite conducted with more than a thousand U.S. adults who attended an event in the performing and visual arts category in the past year to see what attracts younger art enthusiasts.

Martina Wang, the Eventbrite marketing lead shared that, "Amid recent studies indicating a decline in arts event attendance rates for U.S. adults, it was encouraging to see that our study found 70% of millennials who recently attended an arts event expressed interest in attending more. The challenge for performing and visual arts organizations is to effectively reach this highly-connected, influential generation, while staying true to deep-rooted traditions."

It was also noted that compared to older generations, millennials are more likely to find out about arts online, take peer reviews as seriously as professional critics' recommendations, and seek out ways to learn more about a craft after attending an event.

British Museum uses virtual reality to transport visitors to the bronze age

In 2014 the Guardian reported that visitors to the British Museum were invited to walk into a 4,000-year-old roundhouse, where fire was lit, the floor swept and some enigmatic objects lay waiting to be discovered.

The virtual reality roundhouse, with the fire flickering and crackling and changing levels of light shining through the open door, was created by Soluis Heritage. Martin McDonnell, chief executive of the company, said the billions being invested in gaming technology had the side effect of making it far more available for heritage use, with cardboard headsets into which a cheap smartphone could be slotted already a reality.

The 3D scans of the objects were created through the museum's pioneering Micropasts project, where thousands of people across the world accepted the invitation to help online to transcribe information and model museum objects.

Comparing numbers: physical visitors and digital visitors

Southbank Centre wanted to find out more about its digital audience such as how can it grow? What proportion is outside the UK? And what was the situation with other organisations at different stages of digital development? This was what it found out…

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Museums attract larger international online audiences

On average, 53% of web traffic for museum websites comes from their home country. We strongly suspect the contrast with Performing Arts Centres is down to:

less need to visit the organisation's website in advance to book tickets and keep up to date with upcoming events; and

international audiences being able to derive value from the website by accessing collections, archives and a larger volume of educational resources.

Museums get more online traffic

More online traffic is undoubtedly due to the volume of pages dedicated to their collections, archives and educational resources – content that has a longer shelf-life and attracts organic search traffic. It results in a solid 'base layer' of visits, with traffic relating to events and exhibitions providing a fluctuating layer of traffic on top.

By contrast performing arts centres tend to have a much greater percentage of pages dedicated to short-term content (their production pages). Interest in this content tends to drop off relatively quickly and in some cases those pages may even be deleted.

Understanding and using metadata

Standards for metadata can be useful to not just museums themselves but other institutions that they share data with. In Europe, there is the EN 15907 which is European standard for cataloguing film archives that specifies best practices for structuring meta data related to film. The key feature about having these standards for metadata is that it becomes shareable and others can access its content which is especially good for educational institutions.

Sharing content for educational benefit is reiterated in the article by Merete Sanderhoff, *Wanna play?* that talks about building bridges between open museum content and digital learning in public schools, where she shares, "I want digitised museum collections to be a gigantic playground for school kids to romp about in."

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SECTION 5: MAKING THE MOST OF DIGITALISATION

This report has touched on several examples of what museums around the world are doing in terms of digitisation and digitalisation. Some of the results do suggest that the main benefit of digitising museum collections and making them available online is that the collection can be shared with anyone on any part of the planet. However, it cannot replace the true experience of a visiting a museum and appreciating the collection in person.

It is important to note that digitised collections can act as a showcase for museums and generate interests that will eventually lead to a physical visit. Striking the right balance, as was mentioned earlier is to use technology to reach out to potential visitors and keep them informed and maintain the physical collections for when digital audiences make physical visits.

Transparency, sharing and collaboration

A collection archive hidden behind closed doors and accessible only to a select group of experts is now a thing of the past for the Vienna Technical Museum.

As of January 2016, interested parties anywhere in the world can log on to the Vienna Technical Museum's website and browse items in the Museum's collection and even update details about the objects. Of the 160,000 collection items, 90% can now be accessed from the Museum's website. In comparison, the Museum's 22,000 square metres of floor space (equivalent to about three football pitches) is only sufficient to display about 5% of the collection.

A former Austrian army barracks houses thousands more objects in two large multi-storey buildings, while oversize exhibits - such as items of historic railway rolling stock - are kept in a special depot. Previously, rare guided tours were the only way that non-specialist members of the public could access these items. Today, highlights of the collection are available online and include everything from cameras and glass eyes to antique cigarette packets.

Five strategies unleashing the power of collection management system data

Museums have massive, and growing, troves of data in their collection management systems. Data is the foundation of collection knowledge. Massage it into information and you have a narrative that is compelling to the world. Let's take a look at 5 strategies to consider, that will offer fabulous museum troves to the world:

1. Accessories for Museums

Wearable electronics offer opportunities to target information and knowledge to individual consumers. Currently there are offerings that are focused on wearers wishing to manage all things health. This will morph as manufacturers seek to cement these tools into daily life.

2. Visual resources are cheaper with a friend

Institutions are very open to sharing, which is a boon for the consumer once the information is appropriately harvested and packaged. Visual resources are expensive but can be easily and cheaply shared between museums. There are vast opportunities to offer richer experiences to the consumer.
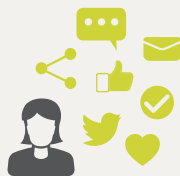
3. In viral we trust, with many happy returns

Social media is a great vehicle for museum information. Operating at the opposite end of the spectrum to targeted delivery, social media offers serendipitous exposure to markets and people. Often, the initiating museum may not have foreseen the possibilities. Fortune especially favours social media distribution when an event creates a phenomenon for some unexpected reason, a "viral" event. Having the data and information available at that time can give fabulous exposure.

4. Hi, wanna buy a dinosaur?

On-line monetisation of small things, micro-sales, is potentially very profitable for museum material. This will require considerable effort to determine what the market looks like and how to service it. There seems to have been little experimentation in this area.

5. Secure your objects

You have all these interesting objects; how can your collections management system protect your valuables? The first step is to have the objects digitised and photographed, this is vital to prove ownership in the event of a theft. This can be impractical, it should be done for key and high value objects as a priority. Physical protection of your collections involves anti-theft and environmental control.

Tate Modern, UK

Photo: Hans Peter Schaefer

Despite the vast amount of data at their disposal, museums struggle to measure the impact and value of their social-media activities due to the lack of standard metrics, consistent tools, and clear guidelines from funders.

In the white paper, An evaluation framework for success, Museums and the Web attempts to define a performance measurement framework that may help museums define the set of measures and tools required to carry out this evaluation task.

Social media offers a great opportunity for museums to communicate, interact, and engage with their audience. For several years, museums have been developing interactive digital projects in order to foster participation and get the audience involved creating, rating, or sharing content.

Social media at Tate

Tate has a massive presence on social media, and the plan is that it will only continue to grow. Tate's website has evolved greatly in the past decade, from a very static site that featured visiting information and a calendar of events to a social website where users can participate in online conversations and debates. There are also interactive areas like Tate Kids and Tate Collectives allowing users to upload their own content. Social features have also been added to the site, such as sharing buttons, Twitter real-time feed widgets, commenting, and a feature that allows users to create their own online albums with artworks and archive items. This feature allows users to upload their own art and then have the possibility to tag and share them.

Not only has the website become more social, but Tate has also opened profiles on different social-media platforms such as Facebook, Twitter, Instagram, Tumblr, and Pinterest that are updated on a regular basis. There has been a rapid increase in the number of accounts and number of people from different departments involved in these activities and a great diversification in the use of these social platforms. The spectrum of initiatives undertaken on social media is very wide, ranging from updates announcing the opening of an exhibition to an interpretation tool used in the galleries. New postings are regularly written in these platforms, including promotion of exhibitions and events, contests, links to content on the website such as blogs or videos, news announcements, or visiting information.

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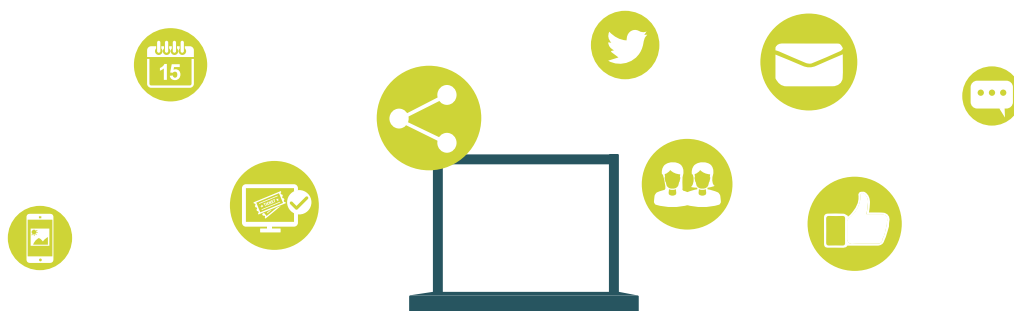
J. Paul Getty, Los Angeles

Photo: Jelson25

How the J. Paul Getty Museum is re-imagining digital collection information management

Over the last twenty years, the J. Paul Getty Museum, like many other large cultural heritage institutions, has invested tremendous resources into developing ambitious and innovative digital collection information projects: websites, interactive exhibition presentations, multimedia guides, and applications. These cutting-edge presentations broadened access to collection information and educational resources in ways that had not been seen before.

Prior to the project, most of its collection information projects were distinct and independent entities within the larger systems infrastructure. The majority of projects maintained their own data silos and utilised their own methods of obtaining information from other systems and were very efficient and effective at supporting the needs for which they had been designed. Eventually the museum realised that it needed a system that could support its growing digital ambitions and potentially anticipate many future needs as well.

The new collection information architecture is now operational and the museum aims to start exploring potential opportunities to share the open-source tools it has built and to collaborate with other institutions. Most likely, collaboration opportunities will be better suited to larger institutions initially, but the team hopes that as the project continues to develop and as the documentation becomes more comprehensive, that it will become useful to smaller institutions too. Beyond institutions implementing Digital Object Repositories of their own, the museum aims that what it has shared there will be of benefit to others as they consider the next steps in the evolution of their own collection information architectures.

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THANKS

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We sincerely appreciate the great cooperation.

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