

*Transforming Arts Organizations Worldwide*

## Capturing the Digital Opportunity in Museums

Research Findings  
March 2022

# Overview of the Research



- One of ABA's members in Spain commissioned a custom research project on how museums can take advantage of the opportunities provided by digital
- The project was conducted jointly with seven of the other leading museums in Spain
- It involved both interviews with museums around the world and experts as well as significant desk research
- This report presents the findings in two areas:
  1. Creating a digital strategy
  2. Building an organization that can embrace digital opportunities

# Twenty Interviews Conducted

Museums				Experts	
In Spain		Outside Spain			
<b>Thyssen Bornemisza Museum</b>	Ancient, modern and contemporary art	<b>National Portrait Gallery (UK)</b>	Portraits of historically important British people <i>Budget: €24 million</i>	<b>András Szántó</b> Consultant, researcher, and writer in the museum field ('The Future of the Museum: 28 Dialogues')	
<b>Reina Sofia Museum</b>	20th-century art	<b>Design Museum (UK)</b>	Industrial, graphic, fashion, and architectural design <i>Budget: €11 million</i>	<b>Javier Zamora</b> Professor and expert in digital transformation at IESE Business School Barcelona	
<b>Centro Botín</b>	Contemporary art	<b>Victoria &amp; Albert Museum (UK)</b>	Art and design <i>Budget: €130 million</i>		
<b>Guggenheim Museum Bilbao</b>	Modern and contemporary art	<b>Van Gogh Museum (NL)</b>	Vincent Van Gogh artworks <i>Budget: €40 million</i>	<b>Ignacio Bachiller</b> CEO of FEVER, a global tech-enabled entertainment discovery platform	
<b>Caixa Foundation</b>	Contemporary art	<b>Munch Museum (NO)</b>	Edvard Munch artworks <i>Budget: €8 million</i>		
<b>MACBA</b>	Contemporary art	<b>Smithsonian Institution (US)</b>	Comprises 11 museums <i>Budget: €882 million</i>	<b>Pierre-Yves Lochon</b> Consultant, professor and founder of Club Innovation & Culture	
<b>Picasso Malaga Museum</b>	Picasso artworks	<b>Cleveland Museum of Art (US)</b>	Paintings, sculptures, photography, design <i>Budget: €38 million</i>		
<b>Picasso Barcelona Museum</b>	Picasso artworks	<b>ACMI (AU)</b>	Film, TV, videogames and art <i>Budget: €18 million</i>		

# Additional Research

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## Desk Research

- Researched the digital strategies of 30+ museums
- Reviewed a range of articles and conference proceedings
- Additional research on social media, AI, gaming, VR/AR and NFTs



## ABA Studies & Activities

- ABA Signature Research Study: *Demystifying Digital Monetization* (March 2021)
- Custom Research on behalf of Thyssen: *Digital Experiences & Monetization in Museums* (January 2021)
- Attendance at MuseumNext Digital Summits (March and December 2021)

# Outline

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Context



Strategy  
Findings



Organization  
Findings

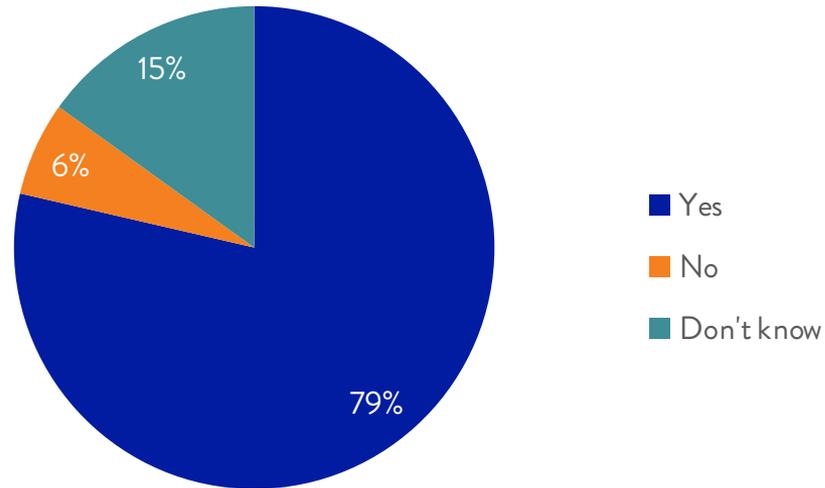


Next Steps

# Museums Believe Digital Is Important

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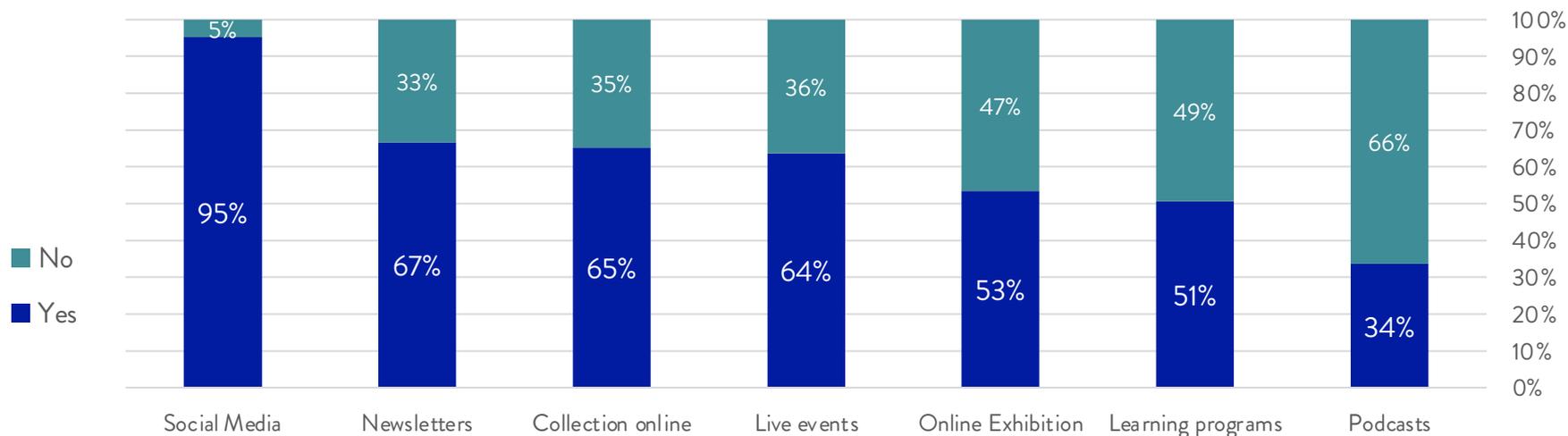
Museums considering increasing their digital offer after lockdown



Source: *Museums, museum professionals and Covid-19: third ICOM report*, International Council of Museums, July 2021

# Many Launched Digital Activities During Lockdown...

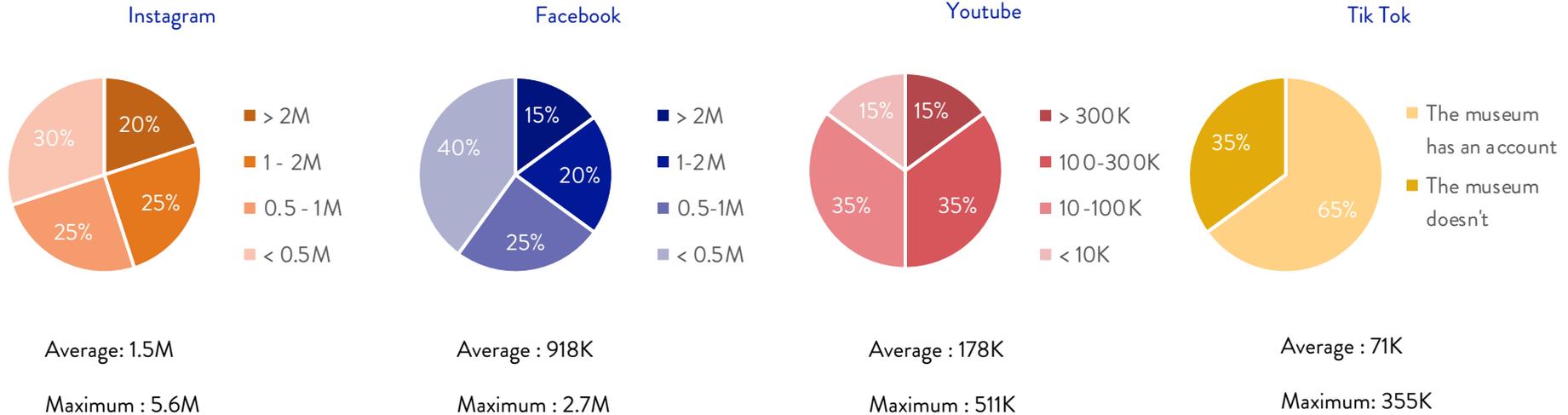
## Digital activities undertaken since lockdown



Source: *Museums, museum professionals and Covid-19: third ICOM report*,  
International Council of Museums, July 2021

# ... And Have Succeeded in Building a Social Media Presence to Varying Degrees

## Number of followers/subscribers per museum account



Source: ABA analysis of the top 20 largest museums in Europe and North America

# However, Many Feel That They Need to Rethink Their Digital Strategy...

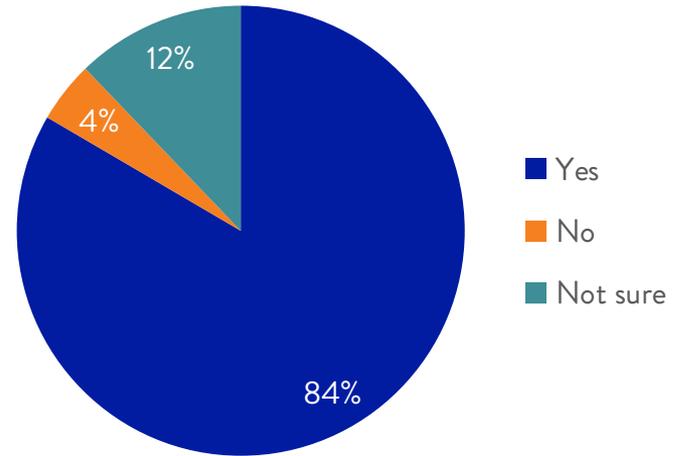
Many cultural organisations are not confident in their digital strategy....

Confidence in Org's Digital Strategy for Next One Year



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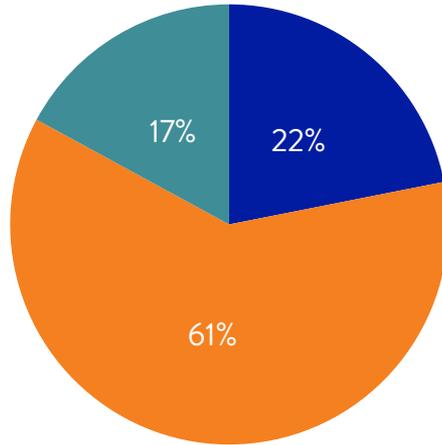
... and most museums are currently rethinking their digital strategy



Source: *Museums, museum professionals and Covid-19: third ICOM report*, International Council of Museums, July 2021

# ... And Therefore Have Not Fully Committed Resources to Digital

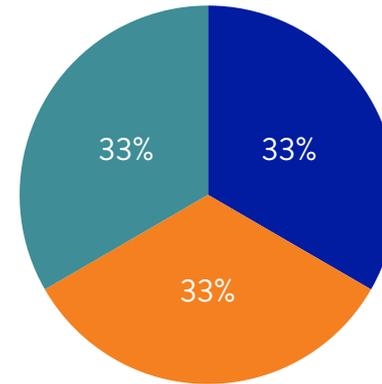
## Staff committed to digital



■ Yes, full-time ■ Yes, not full-time ■ No

Source: *Museums, museum professionals and Covid-19: third ICOM report*, International Council of Museums, July 2021

## Anticipated further investment in digital post-pandemic

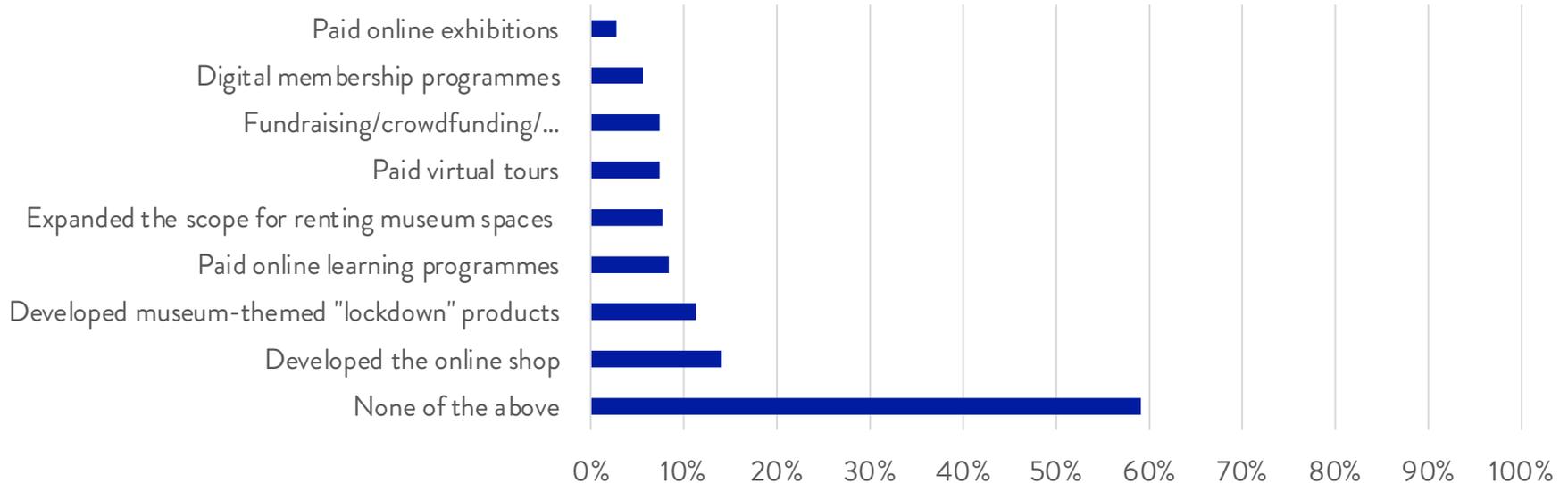


■ Higher ■ Same ■ Lower

Source: ABA's Arts Organization Leader Benchmarking, October 2021, across multiple genres including museums

# Almost 60% Have Not Pursued Digital Revenue Growth Opportunities

## Activities developed since lockdown



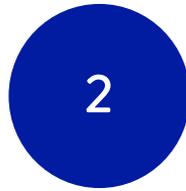
Source: *Museums, museum professionals and Covid-19: third ICOM report*,  
International Council of Museums, July 2021

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Next Steps

# Overview of Lessons Learned

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1

Arts and cultural organizations have made **tremendous progress** in digital over the past 18 months.

2

They are currently in an experimentation phase trying different ideas and **no single 'answer' has emerged**.

3

What is clear is that a digital strategy is not something independent - it needs to be **closely tied to the museum's overall mission and strategy**.

4

Museums cannot afford to excel at digital everywhere, they need to **focus on one or two areas**.

5

**Measuring results** is critical to building both momentum and confidence in the organization.

6

To attract a broad audience, digital content should have a **personal connection** at core and be easy to consume and try. **Storytelling** is key.

7

While fully embracing digital requires time and cultural change, **best practices are emerging** on how to be successful (even with limited resources).

8

Digital has opened up **significant opportunities** for museums - which will only continue to grow.

# Anatomy of a Digital Strategy

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Museum's Mission and Strategy

Identify which of the elements of your mission can best be supported and achieved by digital.



Digital Strategy

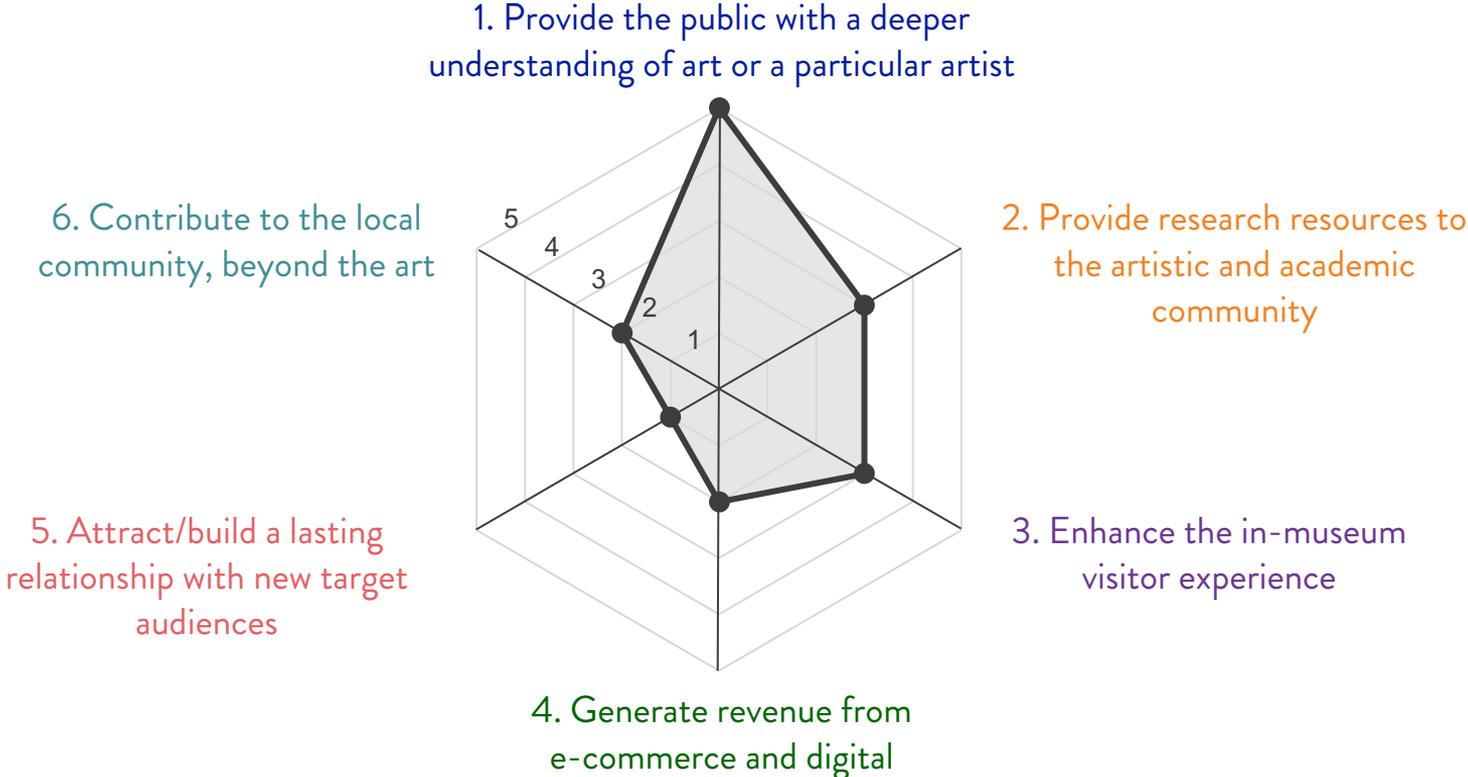
Make sure your digital objectives are specific, measurable, and can tie to one or more specific target audiences.



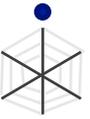
Digital Activities

Identify a few practical actions that will deliver the results of the digital objectives.

# Digital Strategy: a Potential Framework



# 1. Provide the Public With a Deeper Understanding of Art or an Artist



## Learnings

**Listen to what your audience wants to know more about.** Technology enables you to collect lots of data. Make use of your audiences' feedback and comments as sources for inspiration.

**Leverage your curator's creativity and imagination.** Curators have the confidence and deep understanding, and many can envision extremely creative ways to convey an understanding of the art or artists if given license to do so.

**Look for strategic partnerships (especially for tech).** Partners can provide precious expertise as well as technical know-how. Use projects as a way to build deeper relationships with partners and make them part of your long-term ecosystem.

## Case example: Centre Pompidou x Google Arts & Culture 'Sounds Like Kandinsky'

### Play a Kandinsky



What if you could hear color? Explore Vassily Kandinsky's synesthesia and "play" his pioneering masterpiece, *Yellow-Red-Blue*, with the help of machine learning.

Launch experiment



Sounds Like Kandinsky is a digital project developed in partnership between Centre Pompidou and Google Arts & Culture.

- High-resolution digitization of **more than 3,000 artworks** by Kandinsky
- It allows the audience identify with the artist who was affected by of **synaesthesia**, a neurological trait that results in a merging of senses that aren't usually connected, like sound and vision.
- Using Google's AI the audience can **play the artist's work** and hear musical compositions the painter associated to the visual.

## 2. Provide Research Resources to the Artistic and Academic Community



### Learnings

#### Consider the many uses of digital archives.

Archival images have a clear application for researchers and academics, as well as for artists seeking inspiration for this work. Archives can also be used more broadly: at the Smithsonian Open Access Initiative, for example, an agreement with Creative Commons has created an opportunity for the public to use their published online archive for commercial enterprises, such as independent merchandise.

**Go beyond simple digitization.** Adding to the digital experience artifacts that go beyond the object itself (e.g. documents, letters, articles, photographs) can significantly enhance the value to researchers and artists.

### Case Example: Museo Reina Sofia, “Rethinking Guernica”

The museum has built an interactive digital archive exploring the history and creation of Pablo Picasso’s *Guernica*.



A **gigapixel tour** of the artwork allows users to examine its details at a minute level, thanks to infrared, ultraviolet, and x-ray views, along with a map of past alterations.



NEW YORK, 10 MARCH 1955 -  
INSTITUTIONAL CORRESPONDENCE  
Alfred H. Barr Jr.'s letter to  
Pablo Picasso, dated 10 March  
1955



NEW YORK, 1955 - PHOTOGRAPH  
The exhibition *Picasso: 12  
Masterworks*



PARIS, 29 SEPTEMBER 1955 -  
INSTITUTIONAL CORRESPONDENCE  
Daniel-Henry Kahnweiler's  
letter to Willem Sandberg,  
dated 29 September 1955

The museum has also **digitized a collection of thousands of documents** related to the work and its history, making research accessible and easy-to-find.

# 3. Enhance the In-Museum Visitor Experience



## Learnings

Create an experience in the museum that cannot be replicated on-line. Almost everything displayed in a museum is available on internet, so the in-museum experience needs to be exceptional. Much of that comes from engaging with objects in-person, but digital can also be used to significantly enhance the in-museum experience.

Design the visitor experience end-to-end. The visitor journey starts with learning about the museum and booking tickets and continues through the visit itself to after they leave and continue to engage – digital can be part of each element of their journey.

## Case example: Australian Center of Moving Image's lens



A **lens** is given to every new visitor at the museum. It is a free handheld, take-home device and acts as the **personal diary of the visitor**. They collect info or digital objects they create during the visit with it, by just putting the lens on a sign.

Then in the **constellation room** in the museum, they can explore connections between everything they collected with the lens. Visitors get also suggestions of video games, films and work of arts linked to what they collected.

They can also **look at it later at home on their smartphone or computer** logging in on ACMI website, thanks to a unique code on their lens. In 2021, **1.7 million exhibition objects** were collected by visitors with their ACMI Lens.

# 4. Generate Revenue From E-commerce and Digital



## Learnings

**Digital experiences with human interaction are the easiest to monetize.** Audiences expect digital content to be free, but they are currently willing to pay for digital experiences with human interactions such as online classes and online guided tours.

**Explore new opportunities brought by about digital.** Partnerships with private sector, e-commerce, NFTs or the Metaverse are emerging tools that are not necessarily just speculative trends.

**However, ensure that the digital revenue streams are consistent with the museum's culture and mission.**

## Case example: The Whitworth Gallery, William Blake NFT



- The Whitworth Art Gallery in Manchester has **partnered with art platform Vastari Labs** to release a NFT of William Blake's 19th century *The Ancient of Days*.
- 50 editions of the NFT (two of which will be retained by the institution) were launched on **hic et nunc, an environmentally friendly platform** supported on the Tezos blockchain, with prices starting at approximately \$2,200.
- According to the gallery, proceeds from the sale will be assigned to a **Whitworth community fund** and dedicated for use in **socially minded projects** aimed at applying artistic approaches to education, health, and environment, in partnership with local organizations and communities.

# 5. Attract/Build a Lasting Relationship With Target Audiences



## Learnings

**Meet audiences where they are.** Digital supplies many more touchpoints than in-person: engage with audiences where they are in the digital space with the appropriate content for that channel at the right time.

**Museums should talk more like humans on social media.** Social media is all about human relations, not just factual knowledge. Pairing marketing and education, for example, can be a good way to produce content that focuses more on emotional engagement.

**Social media a conversation.** Comments and qualitative feedback can offer museums precious opportunities to learn what their audiences want.

**Story-telling is key.** The key to engagement in the digital space is storytelling, not simply providing facts/

## Case example: The Van Gogh Museum, VGI Facebook Group



**What's their digital strategy?** They shifted from a focus on objects (art) to a focus on relationships (people), knowing that the personal attracts fans on digital media.

**Where do they focus?** Emotional engagement is a key part of their digital strategy, so they highlight the personal aspects of Van Gogh's life and art.

**One example?** They have created “**Van Gogh Inspires**” a Facebook group where fans can share their Van Gogh-inspired artworks

- +82,000 members
- Started after the Museum noticed many fans sending their artwork in comments on posts
- Museum only acts as moderator, fan interactions are the primary content
- Members thank the Museum for creating this space for them to connect

## 6. Contribute to the Local Community, Beyond the Art



### Learnings

Sharing digital resources can be highly impactful. Even at the beginning of the museum's digital journey, it will likely have greater reach and technical resources than smaller organizations in the local community – and they can be easily shared to create high impact.

### Case example: Baltimore Museum of Art's Necessity of Tomorrow(s) initiative



The Baltimore Museum of Art's Necessity of Tomorrow(s) initiative “imagine[s] new futures that embrace social justice, equity, and creative practice.”

During the pandemic, the museum transitioned this project online, building out a **digital gallery and screening room**. They allowed **local artists, galleries, and community groups** to create the exhibits “mounted” in these spaces.

# More Examples

Provide the public with a deeper understanding of art or an artist

The **National Portrait Gallery** just released the first in a series of “Living Portraits”. Through real-time motion capture and storytelling, these short films enable historical characters portrayed in the collection to tell their stories in the first person. The project was developed in partnership with the Athena Art Foundation and Megaverse.

The **Victoria and Albert Museum** worked with Factum Foundation for Digital Technology in Conservation to carry out an ultra-high-resolution recording of seven Raphael Cartoons in color, 3D and infrared. The images from the project are crucial for the study and future care of the Cartoons, as well as offering us unprecedented access to these monumental masterpieces.

Attract/Build a lasting relationship with target audiences

The **ACMI + RMIT Audience Lab** brings together game developers, filmmakers, moving image artists, and individual creators who want feedback on their projects.

The **Design Museum** in London created a gathering every week called Font Sunday on Twitter. With special guests and weekly themes, they spend the afternoon following the feed of images or join in by posting their own with the hashtag #FontSunday.

Contribute to the local community, beyond the art

The **National Museum of Asian Art** in Washington, DC offers online guided meditation sessions, which then pair to a related work in their collection.

The **Van Gogh Museum** and Amsterdam-based clothing label Daily Paper collaborated to design two clothing lines in 2020, featuring a selection of Vincent van Gogh’s masterpieces.

# More Examples

## Provide research resources to the artistic and academic community

The **Belvedere Museum** in Vienna has partnered with Google Arts and Culture to re-color B&W archival photographs of a lost Klimt using AI.

The **Smithsonian Institution** developed the Open Access Initiative, a free digital archive that allows anyone to access thousands of artworks through a Creative Commons Zero license, for any use (including commercial).

## Enhance the in-museum visitor experience

The **Cleveland Museum of Art** is hosting an immersive, mixed-reality HoloLens tour of sacred sites in Cambodia around the new restoration of a masterwork in their collection.

**Casa Batllò** created the first 10D experience in the world by using artificial intelligence (AI), machine learning, augmented reality, 3D sound, olfactory interventions, and more.

For its latest touring exhibition, the **British Museum** partnered with Sketchfab to create special 3D renderings of ancient artifacts to accompany the physical objects.

## Generate revenue from e-commerce and digital

London's **National Portrait Gallery** hired an ecommerce manager to streamline strategy and data tracking, forming a more effective and efficient monetization effort.

The **Uffizi Galleries** in Florence is offering its most famous artworks for sale as NFTs, in partnership with Cinello. Michelangelo's painting Doni Tondo sold for \$170,000.

The **British Museum** launched a series of NFT postcards of Hokusai's more well-known prints. The 1st edition of "The Great Wave" sold for \$45,000.

The **Louvre** partnered with Samsung to develop a subscription package of artworks to act as screensavers for the company's smart TVs.

# Outline

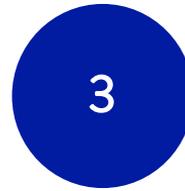
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Context



Strategy  
Findings



Organization  
Findings



Next Steps

# 8 Best Practices for Embracing Digital Internally

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**1. Board and CEO commitment to digital:** align on objectives, communicate them to the rest of the organization, and allocate budget and dedicated staff



**2. Customized organizational structure:** adapt org charts and process to facilitate building digital muscles



**3. New skills and talents:** bring on board a strong digital leader and involve digital natives to bring fresh perspective and to change the culture.



**4. Partnerships to deliver the digital strategy:** collaborate with digital and non-traditional partners, building an ecosystem.



**5. Agile approach:** willingness to monitor, evaluate, experiment quickly and make mistakes on digital activities.



**6. Audience centered thinking:** focus on the needs of the audience to inform your strategy.



**7. Data-driven approach:** take decisions and actions based on data and customer feedback, but within the context of a broader vision for digital and the museum



**8. Step-by-step approach:** recognize the time it will take to embed digital – at least two to four years.

# One Key Question Is How to Structure the Digital Team



## Learnings

How you organise to build digital **will depend on your digital objectives and on the receptivity** to digital within the organisation.

There are **three organisational models** we have seen be particularly successful: a digital task force, digital in one functional area, or digital in a central team (described in more depth on this and the following page).

Ultimately, the ideal model is to have an **experience team** that manages all interactions with the museum, both on-line and in-museum.

## Option 1: a Digital Task-Force

**What is:** A **small and agile** task force that **quickly** moves across the organisation to serve who is most in need.



### Most appropriate when:

- You want to **jump-start** your digital transformation,
- Or you want to **try different things** and are **not sure** where you want to commit your resources,
- Or there is **resistance** to digital within the organisation's **leadership**.

**Example:** Guggenheim Museum Bilbao set up a successful **digital transformation team** to jump-start their organizational journey

1. This team comes up with an **idea** for one area of the museum or one internal process to **improve**,
2. They **work with** that part of the business to get it implemented,
3. Once it's been implemented, they **turn it over** to that part of the organization to run.

# One Key Question Is How to Structure the Digital Team



## Option 2: Digital Put Into One Functional Area

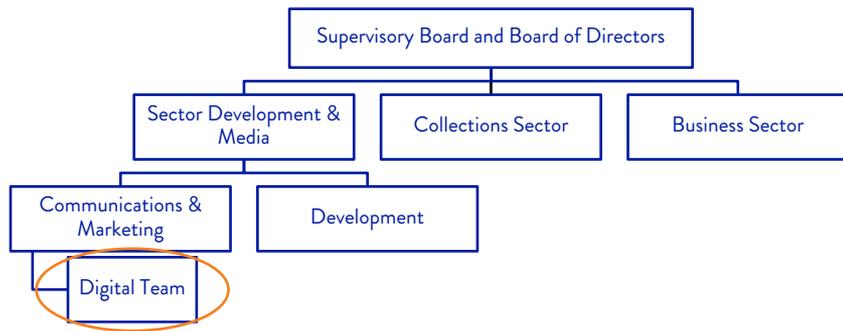
**What it is:** digital is not managed by a standalone department, but **sits within a single pre-existing department** (often Marketing)



### Most appropriate when:

1. That area is the focus of the digital strategy,
2. The impact on other areas is modest,
3. The leader/team in that area have strong digital skills.

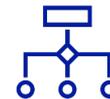
**Example:** Rijksmuseum's digital team (8 people)



## Option 3: Central Digital Team

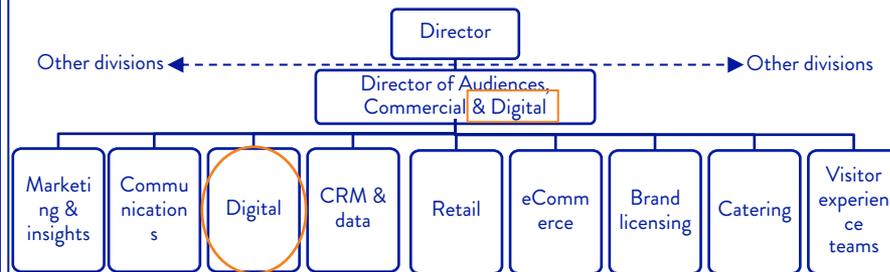
**What it is:** consolidation of all digital functions in one team:

- All report to a single leader and coordinate across the organization,
- Ensures that messages are consistent, and each channel is being used effectively.



**Most appropriate when:** the museum's leadership has established digital as a priority.

**Example:** Victoria and Albert Museum's digital team (28 people)



# Partnerships Are Key to Delivering the Digital Strategy



## Findings

**Embracing digital requires significant effort.** It requires technologies and capabilities that many museums do not have.

**Focus on what you are great at.** Museums have extraordinary expertise, creativity, content and insight which they can bring to the digital realm.

**Find partners to do the rest.** Identify partners who can supplement your team's existing technology and staff expertise. Decide what you really need to 'own' and what can be delivered by partners.

**Think broadly about what partners can offer.** Beyond technology, partners can also bring access to new audiences, new ideas and possibilities, and new capabilities.

## Case Examples: Design Museum and ACMI



Photo: Felix Speller

During the pandemic, **The Design Museum** worked with **Facebook** on its exhibit, Electronic: From Kraftwerk to The Chemical Brothers.

- **The Design Museum got:** technical expertise they did not have in-house and free promotion, resulting in 10,000 visits.
- **Facebook got:** flagship content from a credible institution that would appeal to its art-loving userbase.



Photo: Mark Chew

**ACMI** has developed a **full partner ecosystem**, working with a variety of local institutions and larger companies. These partnerships have allowed them to open new spaces, conduct groundbreaking digital research, and more.

**Major partners include:** Blackmagic Design, Cisco, Panasonic, RMIT University, and Swinburne University of Technology

# Audience-Centered Thinking Creates Relevance and Opportunities



## Learnings

Digital is about **engaging** with audiences: a simple one-way transmission of knowledge is not effective

**Listen** to what they want, establish dialogues and build the strategy based on their **behaviors, needs and feedback**.

**Other museums and cultural institutions** can be a good source of knowledge

## Case Example: National Portrait Gallery's Audience Data Collection

One of the museum's objectives is to **engage and interpret**, adding extra layers and unlocking the many stories preserved in the collection.



### At NPG, audience data:

Informs rebranding & redesign	Measures outcomes of digital activities	Inspires partnerships
<ul style="list-style-type: none"><li>• The 3-years <b>redevelopment plan</b> was informed by analytics on visitors' preferences and behaviours</li><li>• This is a <b>comprehensive re-display and re-interpretation</b> of the collection, and a radical refurbishment with a new and more welcoming visitor entrance and public forecourt</li></ul>	<ul style="list-style-type: none"><li>• <b>Quantitatively:</b> they investigate correlation between image posting on social media and merch sales on the e-commerce &amp; gift shop link</li><li>• <b>Qualitatively:</b> they host a <a href="#">Youth Forum</a> (14-21 y-o) who collaborate with the Gallery to shape its offer for young people</li></ul>	<ul style="list-style-type: none"><li>• From “tell us more” boxes in questionnaires NPG learned many people find ancestors amongst the gallery's portraits</li><li>• As a result, they launched a partnership with <b>ancestry.com</b>: 130k NPG images will featuring on ancestry with documentary dossiers and biographical information</li></ul>

# Using Data Is An Opportunity, But Needs to Be Focused



## Learnings

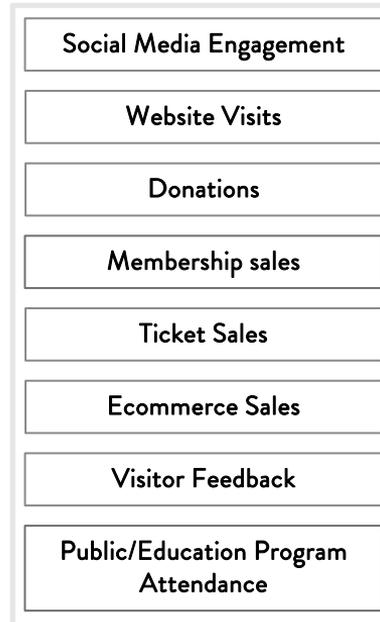
**Data lives many places but is more powerful when integrated.** Every contact a visitor has with the institution is a valuable datapoint, but these often stay in separate departments or databases, preventing meaningful analysis.

**Museums need to decide where it will create the most value.** Identify the areas where the benefit of having data insights is high, and the cost to implement changes is low (e.g. creating personas).

**Sequencing reduces the cost.** Building and using a fully-integrated data architecture takes time, significant resources, and required new skills in the organisation. A sequences, multi-year plan, focused on early wins, increases the chance of sustained success.

## Integrating Your Data: a Potential Structure

### Data Points



Integrated  
Databases



Visitor  
Personas

### Questions Data May Inform

How can we highlight website content that speaks to the visitor's interests?

How can we reduce friction in the ticket purchasing or reservation path?

Are there ways we can orient our value proposition to the ways visitors use the museum?

Are there improvements we can make to our visitor experience based on the feedback our visitors have provided to us?

# Outline

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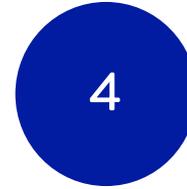
Context



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Next Steps

# Emerging Questions Moving Forward

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- 1) What part(s) of your mission can best be supported by digital?
- 2) What would success look like - and how would you measure it?
- 3) What activities would deliver your objectives and the needs of your target audiences?
- 4) What possible partners could you involve?
- 5) What resources, skills and organizational changes would you require?
- 6) Where should you focus and what should you prioritize?

# How We Can Help Regardless Where You Are in the Digital Journey

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- 1 Developing or pressure testing your digital strategy (where to focus, how to organize, where to invest)
- 2 Working with you to help develop a specific part of the digital strategy: e.g., NFT, e-commerce, audience insight, brand strategy
- 3 Helping design digital organization and launch plan



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