



**Exploring Immersive Experience Opportunities** in the Cultural Heritage Sector

# Credits

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## Acknowledgements

This resource was developed through the ongoing work of TRANSMIXR, a Horizon Europe innovation project bringing together researchers, practitioners, and industry experts to explore meaningful applications of immersive media across diverse application areas including; news, broadcasting, performing arts, and cultural heritage.







TRANSMIXR has received funding from the Horizon Europe programme under the Grant Agreement 101070109. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or European Commission.

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# Introduction

# How can the cultural heritage sector truly harness the potential of immersive technologies?

Well established immersive formats like 'virtual museums' and 'digital twins' help to make cultural heritage accessible by allowing users to walk through virtual exhibition spaces and to examine 3D-rendered artifacts. However, these represent just one way of working with eXtended Reality (XR). As XR technologies mature, we have an opportunity to consider how engagement with heritage collections in immersive environments can embrace enhanced interactivity, multisensory experiences, and participatory storytelling.

In immersive environments, we are no longer constrained by the physical limitations of exhibition rooms that determine what can and cannot be shown. We can forgo the rules of gravity or measures that regulate what can and cannot be touched. Why be bound by the constraints of traditional exhibitions when stories can unfold across unexpected places, through innovative formats, and in collaboration with unlikely collaborators?

Still, we cannot overlook the scalability and accessibility barriers that prevent cultural heritage organizations of different sizes and capacities from incorporating immersive experiences into their long-term audience engagement strategies in the first place. Addressing these challenges is crucial to ensuring that immersive technologies serve the sector as a whole, rather than just a select few.





Image: Beyond Virtual Museums workshop, Netherlands Institute for Sound & Vision (March 2025)

The *Beyond Virtual Museums* workbook is an invitation to explore such possibilities across diverse institutional contexts.

Its overall objective is to help you conceptualize, experiment with, and shape compelling ideas for immersive experiences that go beyond traditional virtual museum models.

The ideas that you will develop as you go through this workbook will serve as a strong foundation for future development, refinement, or prototyping in collaboration with others.

Contents of this workbook draw from insights shared by cultural heritage and XR professionals, researchers, students, and experience designers, as well as experiments from the workshop *Beyond Virtual Museums: Exploring Immersive Experience Opportunities in the Cultural Heritage Sector*, held at Immersive Tech Week 2024 in Rotterdam, and with immersive design students from HU University of Applied Sciences in Utrecht. With unique scenarios, a practical template, and several inspiring examples, you'll be supported throughout your exploration process.

#### Tip!

Want to clarify your goals before you dive in?
Start with this optional reflection activity:

Personal Intention-Setting



# How to use this workbook

This workbook is designed to be flexible, supporting both individual exploration and collaborative use in team settings.

It begins with a concise but essential overview of XR, outlining both the possibilities and challenges that XR presents for the cultural heritage sector, especially in the context of long-term audience engagement.

What follows is a five-part activity sequence, with each part building from the last.

# 1. Selecting a Scenario

In part 1 'Selecting a Scenario,' you will begin by exploring five distinct scenarios in the realm of XR and cultural heritage.

After reflecting on the context, goals, and barriers outlined in each scenario, you will select one which aligns most closely with your interests, values, and creative strengths; or, where applicable, your own cultural heritage organization.

# 2. Affordances of Immersive Technologies

In part 2 'Affordances of Immersive Technologies,' you will then consider the concept of affordances in the context of Augmented Reality (AR), Virtual Reality (VR), and Mixed Reality (MR).





Image: Beyond Virtual Museums workshop, Immersive Tech Week (December 2024)

# 3. Sketching YourConcept

With your scenario in mind, and an understanding of affordances, you will begin a visual brainstorming activity in part 3 'Sketching Your Concept' to quickly explore and express your ideas in an open-ended way.

## 4. Ideation Template

Part 4 'Ideation Template' then invites you to deepen your concept using a structured template. The template prompts consideration of why, what, and how you want to design within the context of your scenario; guiding you through the purpose, features, and practical considerations of your immersive experience.

# 5. Practicing Your Pitch

Finally, in **part 5 'Practicing Your Pitch,'** you'll package and pitch your concept for potential collaborators, with an emphasis on clear communication, feasibility, and future development.

This five step approach was originally workshopped in a two-hour format, offering a fast-paced yet effective way to explore and pitch early-stage ideas. While the full activity can be completed in a few focused hours, we recommend allowing yourself enough time to engage meaningfully with each part. Many individuals or teams may choose to revisit and refine their ideas as they move through the process. Whether you move quickly or take your time, the goal is to support deep engagement, meaningful experimentation, and the development of ideas that are both imaginative and grounded in real-world potential.



# Is this workbook for you?

# Cultural Heritage Professionals

This workbook encourages you to explore innovative ways of engaging with audiences, breaking traditional barriers, and preserving stories using immersive technologies. Whether you're a curator, archivist, or museum educator, we hope to spark new ideas and practical solutions for your work.

# Students and Researchers

This workbook will help expand your understanding of immersive technologies, inspiring academic inquiry, sparking innovative projects, and providing a foundation to evaluate and reimagine existing engagement models.

## XR sceptics

Do you have reservations about the value of XR? Then this workbook can equally help you to develop ideas that illustrate the limitations of immersive technologies – use it to advocate for more equitable development and adoption of XR.

# XR Professionals, UX Designers, and Design Companies

This workbook will inspire you to think creatively about crafting immersive experiences for cultural heritage, expanding your portfolios and pushing the boundaries of audience engagement through collaboration with cultural heritage institutions (CHIs).

# Anyone interested in immersive experiences!

Are you not one of the audiences identified above, but nonetheless interested in learning more about reimagining and exploring the opportunities of XR? Then, of course this workbook is also for you!

You may also find further inspiration in our 2025 guidebook, *Creating Meaningful Interactions with Cultural Heritage in Immersive Environments*.



Read the guide

# Opportunities

# for XR in Cultural Heritage



eXtended Reality (XR) is a broad term that encompasses a range of immersive technologies designed to blend the physical and digital worlds. It includes Virtual Reality (VR), Augmented Reality (AR), Mixed Reality (MR), and other immersive experiences that transform how we interact with and experience content. XR technologies use hardware such as headsets or mobile devices to create interactive environments where users can engage with digital elements in the context of their real-world surroundings or in entirely virtual spaces.

We believe that XR can bring something new and impactful to the cultural heritage sector, allowing us to;

# Engage with untouchable objects

Artifacts behind 'do not touch' signs or too delicate to be displayed can become accessible in entirely new ways.

# Break down physical barriers

Overcome accessibility challenges — whether they're physical, sensory, or spatial — to make heritage available to more people.

## Visit the inaccessible

Step into spaces that are off-limits, long lost, or purely imaginary, giving audiences deeper, more interactive ways to connect with history.

# Engage multiple senses

Create immersive, multi-sensory experiences that combine visuals, sounds, and even haptics to deepen audience connection and understanding.

# Challenges for XR in Cultural Heritage

Despite the exciting promises of XR, however, the cultural heritage sector faces several challenges preventing its wide-scale adoption;

# Complex production processes

Collaboration between heritage organisations and design companies during the production of immersive experiences can be hindered by a limited understanding of the affordances of immersive technologies.

# Access to high-quality 3D assets

Digital 3D assets of heritage objects are seen as essential for XR experiences, but most organisations do not have such assets readily available because creating these assets is both time-consuming and costly.

# Identifying meaningful application areas

Before creating an XR experience, it is crucial to ensure that the XR experience provides valuable impact and engagement opportunities which go beyond what non-XR methods can achieve.

# High short-term investments and long-term costs

Producing XR experiences requires significant financial resources, including the purchase of hardware, maintenance, and the cost of developing content.

While the potential of XR in cultural heritage is undeniable, overcoming these challenges is crucial to ensuring that the technologies are accessible, effective, and sustainable.

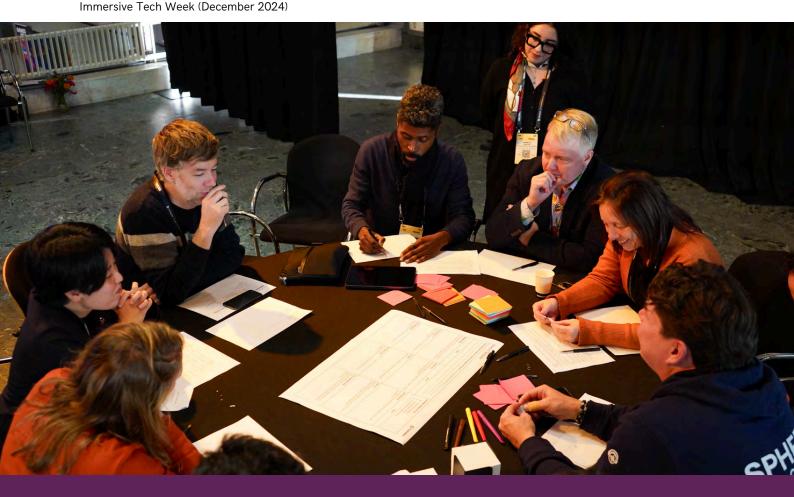
# Imagining new exhibition and interaction formats

## with cultural heritage

Imagining new exhibition and interaction formats with cultural heritage requires us to step beyond traditional methods and think creatively about how immersive technologies can enhance our experiences. Building on the opportunities and challenges outlined in the previous section, this is a chance to translate those insights into concepts.

Image: Beyond Virtual Museums workshop,

In this section of the workbook, you will explore what XR can meaningfully offer by working through a five-part activity sequence designed to help you conceptualize, experiment with, and refine innovative ideas that go beyond conventional virtual museum models. By the end of this process, you'll have a clear, pitch-ready concept for an immersive experience that can be further developed or prototyped in collaboration with others.





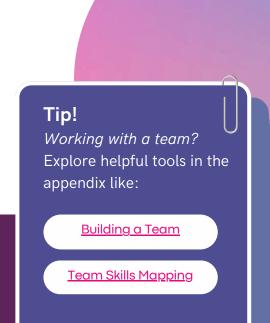
## **Activity Timetable**

The following timetable is based on a two-hour workshop format offering a fast-paced yet effective way to explore and pitch early-stage ideas.

	Objective	Duration *
Part 1	Selecting a Scenario	20 minutes
Part 2	Affordances of Immersive Technologies	15 minutes
Part 3	Sketching Your Concept	10 minutes
Part 4	Ideation Template	1 hour
Part 5	Practicing Your Pitch	15 minutes

<sup>\*</sup> based on a two-hour workshop format

Although the full activity can be completed within a focused session, we encourage you to take the time you need to fully engage with each step. Some individuals or teams may prefer to pause, reflect, or return to earlier stages as their ideas evolve, while others might dive into additional research to enrich their concept. Whether you work through it in one go or spread it out, the process is designed to foster thoughtful exploration, creative risk-taking, and the development of ideas that are imaginative, solution-oriented, and practically grounded.





## **Materials Needed**

To get the most out of this activity sequence, we recommend having the following materials on hand:

- Workbook printout or digital copy to follow along and complete activities
- Pens, pencils, and markers for sketching and notes
- Sticky notes or index cards for quick ideation and rearranging ideas
- A3 or large sheets of paper for visualizing concepts and mapping ideas
- Access to the internet
  for inspiration, looking up examples, or accessing our
  ideation template in an online format via Miro
- Timer or clock
  to help keep track of the suggested durations

Feel free to adapt based on your own context, these are simply suggested tools to help support a creative and productive session.

# Ready to begin?

Then let's dive in!





# Part 1 Selecting a Scenario

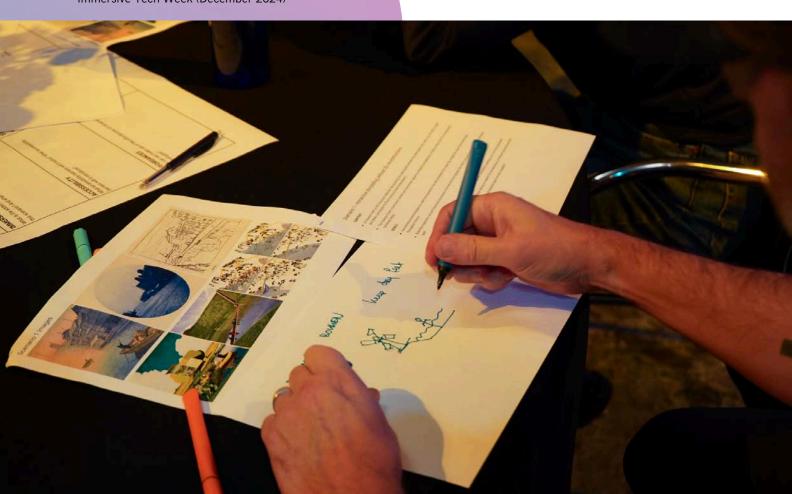
We have crafted five distinct scenarios designed specifically to help you come up with new ideas that challenge existing XR storytelling formats. Each scenario includes its own cultural heritage context, goals, and barriers. Take a moment to read through each of these scenarios.

If you are going through this workbook as a team, you might consider taking turns reading each aloud. After reflecting on the scenarios, you will select one scenario which aligns most closely with your interests, values, and creative strengths; or, where applicable, your own cultural heritage organization.

Your selection will serve as the foundation for the creative process ahead.

Once you've selected a scenario, we'll explore the unique affordances of XR and how they can be used to bring your chosen scenario to life in compelling and meaningful ways.

Image: *Beyond Virtual Museums* workshop, Immersive Tech Week (December 2024)



# Creating immersion without 3D reconstructions

### Context:

You represent a museum with a rich historical collection consisting of old photographs, illustrations, and paintings.

Your museum's collection documents the relationship between Italy and water (e.g. the role of canals, techniques for flood control, and reckoning with sea-level rise).

### Goals:

- Use immersive technologies to create an experience that demonstrates how water has shaped the urban Italian landscape throughout history.
- Build an experience around the historical documents in the museum's archive without relying on 3D reconstructions of different historical periods.

#### Barriers to consider:

- Can you make water a dynamic and multisensory element — feel present and alive using only static historical documents?
- Can you design an experience that's both technologically modest and emotionally engaging?

Images source: public.work







# Bridging digital literacy gaps through immersion

#### Context:

You represent a museum dedicated to digital culture. Your collection includes video games, early internet art, digital memorabilia, oral histories and other artefacts showing the development of web culture and communities around it.

Your museum is located in a small city in Slovakia. The local community has limited exposure to new digital technologies and therefore are sceptical about them.

### Goals:

- Act as a bridge between local population and new digital technologies, and support digital literacy development.
- Create an immersive experience that exposes the local community to new technological possibilities and allows citizens to engage with immersive technologies critically.

#### Barriers to consider:

- Can you create an immersive experience that engages audiences with a variety of digital literacy levels?
- Can you create and market an immersive experience in a way that does not drive away people who are sceptical about digital technologies?



# Bringing online collections into real-world spaces

### Context:

You represent a grassroot community museum with no physical presence – you only operate an online platform for digital curation and public engagement activities (including online exhibitions and crowdsourcing campaigns). Your heritage collection comprises contemporary digital assets related to queer communities around Europe: photographs from protest and community events, digitised memorabilia, oral histories, etc.

Several municipalities have expressed interest in collaborating with you and creating space for your collection to have a physical presence in their cities.

### Goals:

- Use an immersive experience to give the museum a presence in physical spaces (for instance, maybe bring it to local libraries? Or create an AR-based guerrilla marketing campaign in bus stops?).
- Incorporate crowdsourcing elements into the immersive experience - invite audience members to contribute their take on the collection and enrich it with their perspectives, experiences and stories.

### Barriers to consider:

- Can you use immersion to bring the collection to local communities without relying on traditional institutional contexts like formal museum exhibitions?
- Can you create an temporary experience that is easily scalable and repeatable so we could repeat it in multiple cities?

Image source: Bishopsgate Institute's Special Collections and Archives



# Engaging diverse voices with immersive heritage

### Context:

You represent a city archive situated in a historic neighborhood in Rotterdam, the Netherlands, with a rich architectural and social history but facing rapid gentrification. You've been tasked by the municipality to engage citizens in thinking about the future of the neighbourhood.

Your rich collection documents the changing landscape, architecture and people in the neighbourhood over the last 100 years to the present day.

There is a growing number of immigrants and refugees in the neighbourhood who encounter language barriers when trying to integrate into the community.

#### Goals:

- Create an immersive experience with and for the local communities, showing the past, present and a possible future of the neighbourhood.
- Engage people who are currently not included in the conversation around the future of the neighbourhood including young people and immigrants who face language barriers.
- Bring public programming outside of the archive building to public spaces as a way to connect with new audiences.

#### Barriers to consider:

- Can your immersive experience help communities overcome language barriers while engaging with cultural heritage?
- Can you use immersive affordance to bridge the gap between the past, present and future?

Image source (left): Mark Ramsay Image source (right): NOS





# Creating shared immersive heritage experiences

### Context:

You represent a small museum in the Balkans focusing on shared intangible heritage, such as traditional music, crafts, and cuisine.

You are well connected to other heritage organisations in the region with similar collections as well as local companies and makers creating this heritage (e.g. people working in crafts, music venues, etc.)

#### Goals:

- Strengthen collaboration with other heritage organisations and local companies in the region through collaboration
- Create a joint immersive installation that could be displayed across multiple locations in the region at the same time
- Highlight commonalities and differences across the collections

### Barriers to consider:

- Can you use immersive affordances to combine collections from different heritage organisations into one experience?
- Can you combine digital and analogue methods to create a multi-sensorial experience that brings the collection to life (think of sense of touch, smell, taste, etc.)?
- Can you engage local companies and their physical premises or venues to display the experience (perhaps an immersive installation at a local bakery or at a crafts market?)

Image source (left): Unesco Image source (right): Britannica



# Part 2

# Affordances of Immersive Technologies

When we ask ourselves, 'how can the cultural heritage sector truly harness the potential of immersive technologies?' it is essential to first consider the concept of *affordances*. Keep your scenario in mind as you go through this next part of the workbook.

In design, an 'affordance' refers to the properties of an object or environment that suggest how it can be used or interacted with. For example, a button affords pressing, a door handle affords pulling, and a chair affords sitting.

Just as physical objects invite certain interactions, immersive technologies create new possibilities for engagement. The affordances of each technology shape how users experience, interact with, and make-meaning with content.

Let's take a closer look at this in the context of Augmented Reality (AR), Virtual Reality (VR), and Mixed Reality (MR). As you consider each medium, think about how its pros and cons relate to your chosen scenario. Note down keywords and phrases that seem the most relevant to you.

Image source: Netherlands Institute for Sound & Vision, Jorrit Lousberg







Images source: the Kinfolk app

# **Augmented Reality (AR)**

In AR users interact with digital content that is anchored to the physical world around them. By leveraging locational and spatial information, AR allows users to engage with digital elements overlaid on real-world environments without the need for specialized controllers or headsets. This makes AR highly accessible, portable, and cost-effective, as it often runs on everyday devices like smartphones or tablets. Further, because AR content interacts naturally with the user's surroundings, it provides an immersive yet grounded experience, making it an ideal tool for engaging diverse audiences across various cultural heritage settings.

	Pros	Cons
Augmented Reality (AR)	<ul> <li>Accessible via smartphones/tablets         <ul> <li>no special equipment needed</li> </ul> </li> <li>Enhances real-world environments with contextual overlays</li> <li>Cost-effective and scalable for wide distribution</li> <li>Ideal for on-site storytelling and education</li> <li>Non-intrusive and easy to adopt</li> </ul>	<ul> <li>Limited immersion compared to VR/MR</li> <li>Dependent on device screens</li> <li>Prone to technical issues in poor lighting</li> <li>Balancing real and digital attention can be challenging</li> </ul>

## Example: Kinfolk Tech

Kinfolk's mission is to harness emerging technologies to empower stories of Black, Brown, and Queer communities in public spaces through imagination and play. Through their flagship AR app, anyone can bring newly imagined monuments to life that feature underrepresented Black and Brown historical figures.







Images source: MediaScape XR

# Virtual Reality (VR)

Unlike AR, which enhances the real world, VR offers full sensory immersion, transporting users into 360-degree environments where they can explore freely from a variety of angles. VR also removes the constraints of the physical world, allowing users to move and interact in ways unrestricted by real-world limitations, such as gravity and space. While VR could simulate existing galleries, libraries, archives, or museums, it also enables users to experience entirely new, imagined spaces that do not exist in physical reality, making it a powerful tool for storytelling and deeply engaging with cultural heritage.

	Pros	Cons
Virtual Reality (VR)	<ul> <li>Fully immersive, engaging experience</li> <li>Frees users from real-world physical constraints</li> <li>Enables rich, narrative-driven storytelling</li> <li>Safe access to delicate, distant, or reconstructed environments</li> </ul>	<ul> <li>Requires headsets and possibly controllers—higher cost</li> <li>Learning curve for new users</li> <li>Isolates users from the physical world</li> <li>Not inclusive for all users (e.g. motion sickness; visual, physical and auditory accessibility issues)</li> </ul>

## Example: MediaScape XR

MediaScape XR allows individuals to relive the history of select pieces from the The Netherlands Institute for Sound & Vision collection through the medium of Social VR. It illustrates how the traditional model of a museum experience as a passive observation is decisively shifting to active, interpretive, and shared engagement.





Images source: Visions of Nature

# Mixed Reality (MR)

MR sits at the intersection of the physical and virtual, blending both AR and VR into a single interactive environment. In MR, physical and digital objects can interact and coexist in real time, allowing users to manipulate both virtual and real-world elements simultaneously. This enables rich, flexible, and complex interactions where users can touch, move, and modify objects in ways that feel intuitive to them. With MR, users don't just experience digital content, they can actively shape and interact with their surroundings, providing an incredibly dynamic and participatory form of engagement.

	Pros	Cons
Mixed Reality (MR)	<ul> <li>Combines physical and digital interaction seamlessly</li> <li>Encourages deep, intuitive engagement</li> <li>Enables hands-on exploration of virtual objects in real space</li> <li>Supports collaborative and educational experiences</li> </ul>	<ul> <li>Requires advanced and costly hardware</li> <li>Complex to design and develop</li> <li>Still emerging—limited user access and familiarity</li> <li>Performance can be impacted by physical space limitations</li> <li>Not inclusive for all users (e.g. motion sickness; visual, physical and auditory accessibility issues)</li> </ul>

# Example: <u>Visions of Nature</u>

Visions of Nature is an exhibition at The Natural History Museum that features interactive holographic animations encouraging visitors to reflect on their impact on the environment and feel empowered to take action.

# Part 3 Sketching Your Concept

Now that you've explored the distinct affordances of AR, VR, and MR and considered how each shapes user interaction, storytelling, and meaningmaking, begin thinking about how these technologies could enhance your chosen scenario. Which affordances feel most relevant? Which technology best supports the kind of engagement you want to foster, or addresses the barriers you're working with?

With everything in mind, it's time to bring your ideas to life through sketching. This is an open-ended opportunity to visually express yourself, test possibilities, and think creatively through design.

We recommend beginning this phase individually. This gives you space to tap into your personal perspective, values, and creative instincts before coming together to share and reflect with a team.

Whether you prefer using markers and pencils, or digital tools, take some time to explore your initial ideas through quick, visual exploration.

There is also no right or wrong way to do this part of the activity! Your sketches might be messy, abstract, or even symbolic. What matters is allowing your ideas to flow freely and take shape in a way that feels natural to you.

Image: *Beyond Virtual Museums* workshop, Immersive Tech Week (December 2024)





Image: *Beyond Virtual Museums* workshop, Netherlands Institute for Sound & Vision (March 2025)

# To help guide your thinking, consider these questions as you sketch:



- What does the space or environment look like where the experience takes place?
- What does the user see, hear, or do during the experience?
- How does the user move through or navigate the experience?
- Who is the experience designed for, and how might they engage with it?
   Consider demographics such as age, and background factors, such as previous knowledge
- How long does the experience last?
- How many people is the experience designed for?

Let your imagination lead the way.

When you are done, take a look at some inspiring examples developed by participants of the *Beyond Virtual Museums* workshop held at Immersive Tech Week 2024 in Rotterdam, NL, on the next page.

If you feel inclined, you might reflect on how these example concepts relate to your own work or spark new ideas. Don't hesitate to revisit and adjust your sketches as your ideas evolve.

If you are going through this workbook as a team, we encourage you to share your thoughts and sketches with each other. You will need to select *one* concept to be further explored before proceeding to the next part of the activity.

# Examples

### Digital only museum

An AR-based guerrilla marketing campaign that brings the collection of a digital-only museum to bus stops, allowing the local community to explore contemporary queer heritage (photographs, oral histories, and memorabilia from European protests and events) in physical spaces.

### Historical environment

An MR experience where participants collaborate to build and maintain a protective dike in the Netherlands, navigating historical environmental challenges through interactive play and teamwork while learning about the country's rich history of flood control and land reclamation techniques.

## Intangible heritage

An AR experience hosted across multiple restaurants in the Balkans, bringing participants together around the region's shared intangible heritage (traditional music, crafts, and cuisine). It offers a multi-sensory experience where participants can see, touch, listen, and taste.

### Retell local folklore

An MR exhibition in a small Slovak town that blends old and new technologies to retell local folklore. Using nostalgic tools like old computers and games, it offers immersive, interactive experiences designed to engage audiences of all digital literacy levels.

## **Architectural history**

An AR experience inviting residents of a historic, rapidly gentrifying Rotterdam neighbourhood to reconnect with 100 years of its social and architectural history while sharing their unique cultural perspectives and languages tied to these stories.





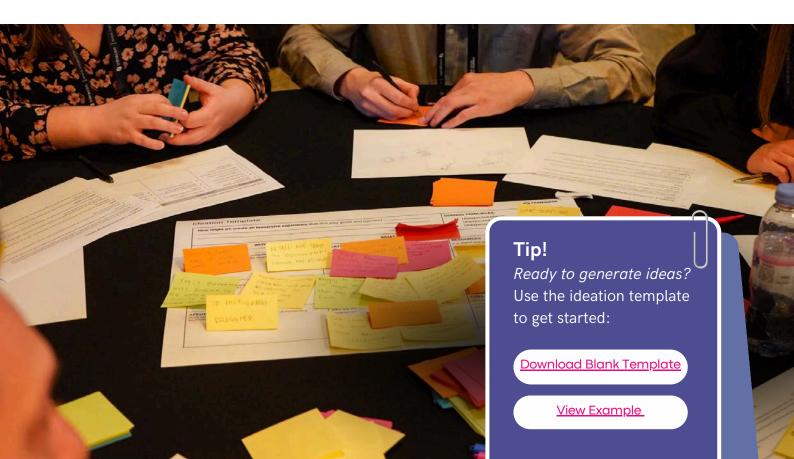
# Part 4 Ideation Template

Now that you've visualized your ideas, it's time to develop *one* further using our ideation template. This template is designed to guide you from concept to prototype, helping you refine your immersive experience. Structured around a 'why, what, how' framework, it will lead you through key elements such as the purpose of your experience, its core features, and the steps needed to bring it to life. You'll also explore important factors like resources, accessibility, audience interaction, and collaboration, giving you a clearer, actionable plan for your concept.

Image: *Beyond Virtual Museums* workshop, Immersive Tech Week (December 2024) As you make your way through the template in your desired format, you may find yourself revising your original sketch. This is okay. Iteration is a key part of the process and is highly encouraged!

By the time you complete the ideation template, you'll have a more detailed and grounded vision of your immersive experience. In the final part of this activity, you'll shape that concept into a compelling pitch that highlights both its creative potential and cultural impact.

**Please note:** If you have multiple ideas you wish to build out, you must complete *one* template for each.





Part 5
Practicing Your Pitch

Image: Beyond Virtual Museums workshop, Immersive Tech Week (December 2024)

It's time to package your concept into a short pitch. This is your opportunity to communicate your concept clearly and compellingly, highlighting what it is, why it matters, and how immersive technology helps bring it to life. Focus on clarity, creativity, and what makes your concept unique.

#### A good pitch usually answers:

- What is it?
   Describe the immersive experience.
- Who is it for? Identify the intended audience.
- How does it work?
   Touch on key features or how/why the immersive technology is used.
- Why does it matter?
   Its innovation, cultural relevance, impact or emotional draw.

If you have gone through this workbook on your own, try explaining your idea to a friend or colleague in one minute or less. Does it make sense to them? Revise your pitch with their feedback accordingly.

If you are working as a team, take turns giving your individual pitch to each other first. As you listen to each other's pitches, offer constructive feedback on what stood out, what was clear, and where more detail could help. Then you can work together to craft a shared version that combines the strengths and perspectives.



# **Next Steps**

Throughout this workbook, you've explored the possibilities of immersive technologies in cultural heritage and developed a concept that challenges traditional exhibition models. Whether working individually or collaboratively, you've laid the groundwork for new ways to experience and share cultural heritage. While this process may not provide a definitive solution to all of the challenges the cultural heritage sector faces in integrating immersive technology, it is a meaningful step toward reimagining its role in your own context.

What comes next is up to you. Whether it's submitting your idea to a student design competition, pitching your concept to colleagues or cultural heritage organizations, seeking out partnerships, or prototyping your idea, we hope this workbook has provided you with the tools and inspiration to move forward and continue shaping the future of immersive experience opportunities in the cultural heritage sector.

Image: Beyond Virtual Museums workshop, Immersive Tech Week (December 2024)



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# Personal Intention-Setting

Use this optional reflection activity to clarify what you want to get out of using this workbook. It can be helpful whether you're working on your own or as part of a team.

book?	
2. What skills or approaches do I want to practice?	
3. What would make this process meaningful or sat for me?	

# Building a Team

When working in teams, it's important to define roles clearly. This helps distribute responsibilities, ensures accountability, and empowers everyone to contribute meaningfully. These roles can be flexible. People may take on more than one, or rotate them depending on the project needs.

Here are some team roles to consider:

### Facilitator / Moderator

**Purpose:** Guides the team's process, supports collaboration, and ensures everyone is heard.

#### **Key Responsibilities:**

- Keeps the team on track and focused on goals.
- Ensures everyone has a chance to contribute.
- Facilitates decision-making processes (e.g., consensus, voting).
- Helps manage group dynamics and resolve conflicts.
- Supports inclusive, respectful communication.



## Timekeeper

**Purpose:** Help the team stay on schedule and manage time effectively.

#### **Key Responsibilities:**

- Sets or tracks time limits for discussions or tasks.
- Reminds the team when it's time to move forward.
- Works with the Facilitator to adjust pacing if needed.

**Note:** This role could be combined with the Facilitator, but can be assigned separately in fast-paced or time critical environments.

## **Documentation / Reporting**

**Purpose:** Capture what the team does, decides, and plans.

#### **Key Responsibilities:**

- Takes notes during meetings or work sessions.
- Summarizes key decisions and action items.
- Maintains clear records of next steps and deadlines.
- Prepares summaries or reports to share with others (e.g. instructors, stakeholders).

## Research / Exploration

**Purpose:** Gather background information to inform the team's work.

#### **Key Responsibilities:**

- Investigates relevant topics, case studies, or tools.
- Summarizes findings for the team.
- Brings new insights, examples, or alternatives to the table.

# Technical Development / Design

**Purpose:** Oversees the creation or implementation of the project's technical or visual aspects.

#### **Key Responsibilities:**

- Leads the design or development process (e.g. prototypes, presentations, systems).
- Shares tools or frameworks to use.
- Coordinates with other members to integrate ideas.

Choose roles intentionally and revisit them as your team evolves. Shifting roles based on interests and strengths supports equity and collaboration; especially under pressure. These roles are a starting point. Feel free to adapt or invent roles that fit your team's unique context.



# Team Skills Mapping

After reviewing possible team roles, use this activity to map out the skills, tools, and learning goals each person brings. This can help you assign roles more intentionally and collaborate more effectively.

	Skills or Knowledge	Tools / Tech Familiarity	Something I Want to Learn
Name	e.g. Organizing, visual design, facilitation, writing, coding, etc.	e.g. Adobe Creative Suite, Miro, Figma, Unity, Unreal Engine, Google Docs, etc.	

# Brainstorming Tips

Use these quick tips to help your team generate and organize ideas. This will be especially useful when working across disciplines, stories, and technologies.

## 1. Go for Quantity First

Generate lots of ideas without judging or editing. Encourage wild, simple, or unexpected ideas. There are no wrong answers at this stage.

#### 2. Cluster Ideas

Group ideas by:

- Theme (e.g. voice, identity, memory)
- Audience (e.g. youth, visitors, local community)
- Medium (e.g. AR, VR, MR)
- Feasibility (quick wins vs. long-term ideas)

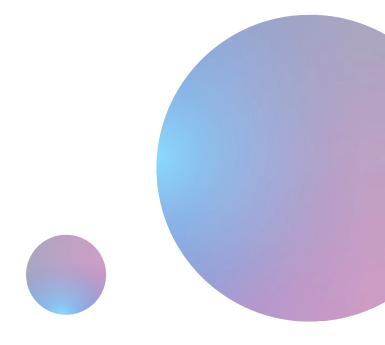
Clustering helps reveal patterns and priorities.

### 3. Make It Visual

Use sticky notes, whiteboards, or digital tools (like Miro, FigJam). Keep ideas visible so everyone can build on them.

#### 4. Revisit and Refine

Come back later to reorganize or reflect. Good ideas often evolve through time, conversation, and iteration.



# Ideation Template

How might we create an immersive experience that...

Our Idea:

WHY	WHAT	ном
IMMERSION  What is the added benefit of using immersive technologies in this scenario?  And what are the counter arguments against it?	STORY What would you like to communicate with this experience?	RESOURCES e.g. digital and physical infrastructure, people, money, time, volunteers, etc.
AFFORDANCES  How can we make use of the affordances of immersive technologies?	INTERACTION  Who are the audiences and how they will interact with the experience?	SKILLS  What skills will you need to create the concept, build it, test it, implement it and sustain it? Who has those skills?
ACCESSIBILITY What accessibility barriers will it solve? What accessibility barriers will it introduce?		COLLABORATORS  Whose expertise and resources can you make use of? (e.g. design companies, universities, local businesses, students, activists, etc.)  eady to generate ideas?  ownload the Ideation

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Template below.



# 'Move with Us' Campaign

How might we create an immersive experience that... brings our digital-only collection into physical spaces? Can we create an experience that is easily scalable and repeatable?

**Our Idea:** An AR-based guerrilla marketing campaign that brings the collection of a digital-only museum to bus stops, allowing the local community to explore contemporary queer heritage (photographs, oral histories, and memorabilia from European protests and events) in physical spaces.

WHY	WHAT	ном
IMMERSION  What is the added benefit of using immersive technologies in this scenario?  And what are the counter arguments against it?  Immersive technologies can make digital content tangible and place-based, enhancing engagement and emotional connection by situating queer heritage in everyday public spaces. AR is limited in terms of 'immersion' as compared to VR or	What would you like to communicate with this experience?  That queer history is present, ongoing, and part of our shared public memory. The experience aims to honor overlooked stories and bring them into daily life through unexpected encounters.	RESOURCES e.g. digital and physical infrastructure, people, money, time, volunteers, etc.  Digital: AR platform, content management system, mobile-optimized website/app. Physical: Posters or markers at bus stops, QR codes, permissions from transit authorities. People: Historians/Curators, AR developers, designers.

#### **AFFORDANCES**

MR.

How can we make use of the affordances of immersive technologies?

By bringing our collection to local bus stops, AR allows us to enhance the real-world environment with our collection and is easily scalable. AR is easier to reach people 'on the go' because they can use their own personal smartphones or tablets. Perhaps our audience might be limited in their engagement, however, because they are trying to travel somewhere.

#### INTERACTION

Who are the audiences and how they will interact with the experience?

Primary audiences include commuters, youth, and local communities —especially LGBTQIA+ individuals and allies. They'll scan AR markers or posters to explore layered digital content on their phones, engaging at their own pace.

#### **SKILLS**

What skills will you need to create the concept, build it, test it, implement it and sustain it? Who has those skills?

Concept + Curation: Museum professionals, queer historians.

Build + Test: AR developers, UX designers.

Implementation: Project managers, local organizations.

#### **ACCESSIBILITY**

What accessibility barriers will it solve? What accessibility barriers will it introduce?

Increases visibility for underserved narratives in an everyday and accessible location. Relies on mobile devices, stable internet, and some level of digital literacy. It may not be usable by visually impaired or low-tech users.

#### LOCATION

Where will the experience take place? (Push yourself to think of unusual, unexpected places.)

At bus stops and transit hubs across urban areas with high foot traffic –everyday spaces that allow for casual discovery and repeat interaction.

#### **COLLABORATORS**

Whose expertise and resources can you make use of? (e.g. design companies, universities, local businesses, students, activists, etc.)

Design and tech agencies for AR development, other queer archives and activists for creating campaign visibility, the local municipalities for funding, access to public infrastructure (bus stops), help with permits and promotion.



# Project Milestones

Milestones mark key moments in a project. They help teams stay aligned, track progress, and pause to reflect. Below are common milestones:

## 1. Research & Discovery

Gather context, community insights, and reference materials. Explore technologies and cultural content relevant to your goals.

## Idea Generation / Brainstorming

Generate many possibilities. Use prompts, sticky notes, or mapping tools. Stay open and inclusive at this stage.

## 3. Concept Choice

Decide on a core direction. What idea will you move forward with? Clarify goals, audience, and scope.

## 4. Prototyping

Build a rough version of your experience (e.g. storyboard, paper prototype, simple interactive). Focus on testing core ideas, not polish.

### 5. Feedback & Iteration

Share your prototype with peers, community members, or collaborators.

Gather input and revise based on what you learn.

### 6. Final Build / Presentation

Complete your XR experience, exhibit, or demo. Document your process and prepare to share or publish.

## 7. Reflection & Next Steps

Look back on what you learned. What worked well? What would you do differently? What are possible future directions?

# Scaling Your Project

Exploring different scales of your idea can help you clarify what's most important and what's possible. Use the prompts below to imagine your project at various levels from the most ambitious vision to the simplest version that still conveys your core concept.

# The Ideal Experience: No Limits

What would this look like if you had all the time, funding, and technology you wanted?

- What makes this experience unforgettable or powerful?
- What kinds of interaction, immersion, or storytelling are included?
- Who gets to experience it, and how?
- What formats or platforms would you use (VR headset, installation, web, etc.)?

# The Minimum Viable Experience: Core Elements Only

What's the simplest version of this idea that still communicates the core concept?

- What is the one thing participants should feel, learn, or do?
- What could you make with tools you already have?
- What's possible to share or test with minimal resources?
- What's the lowest-tech version (e.g. a storyboard, mock-up, or script)?

## In-Between Options

Not everything is all-or-nothing. What are a few intermediate versions?

- What could you do with limited access to XR tech?
- What version could be shared in a classroom or workshop?
- What could you co-create with a community partner?

Think of scaling as a creative tool; not a compromise. Honoring your core idea while adapting to real constraints is a skill worth practicing.







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