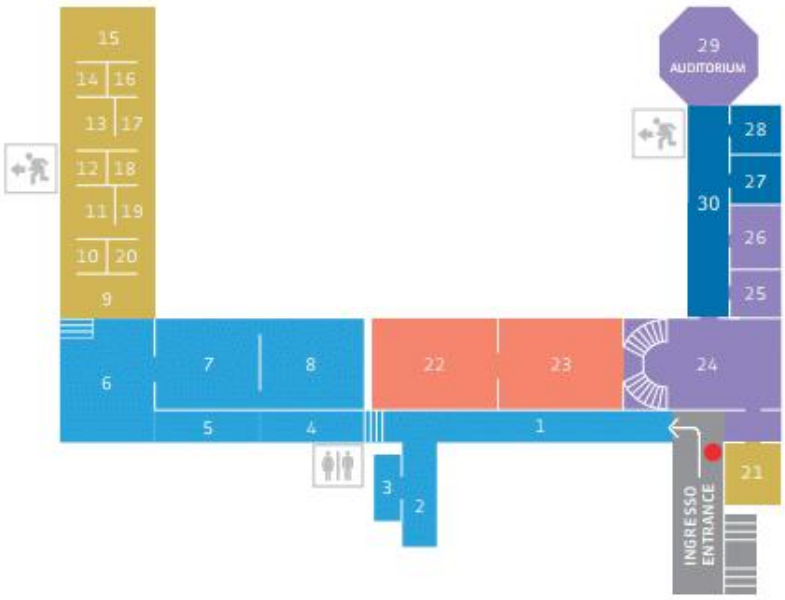
Title: Inside the Frame
Group Name: Wunderkammer
Name of the Participants: Johanna Pichler, Kourosh (Cyrus) Shahbazi, Yang Tianchi

1. The Context

Here you specify:

(a) The museum and its content / collections: **Pinacoteca Nazionale di Bologna, Emilian painting spanning the 13th to 18th centuries, with masterpieces by local and major Italian artists**



(b) The location and its map/plan: Bologna

(c) Institutional Goal

Protecting and growing its cultural heritage,
Sharing and interpreting it widely through dynamic, inclusive programming,
Fostering educational and scholarly initiatives,
Strengthening its autonomy and network connections,
Innovating digitally and democratically, to fully act as a civic cultural leader in Bologna, Italy, and beyond.

Assets:

Digitize More Assets:

To create high-resolution digital versions of a broader selection of our paintings so that we can weave them seamlessly into our interactive game, enrich our online gallery and virtual tours, and preserve every brushstroke in stunning detail for future generations. By expanding our digital catalog, we would make the full depth of Bologna's collection accessible to visitors both in the museum and around the world, enhancing engagement, learning, and appreciation of our artistic heritage.

Use Assets in New Ways:

To unlock fresh creative possibilities for our digitized paintings - repurposing them as dynamic game elements, animated sequences, social-media teasers, AR filters, or educational infographics - so that each work becomes a versatile storytelling tool that engages audiences in novel, memorable formats both inside and beyond the museum walls.

Increase Educational Activities:

To deepen learning by embedding rich, curriculum-aligned content into every stage of the visitor journey - whether through game-led historical quizzes, guided storytelling sessions about the painting, or hands-on workshops that let participants recreate period art techniques - so that guests of all ages leave not just entertained, but genuinely informed and inspired by the cultural and scientific lessons behind Bologna's masterpieces.

Engagement:

Increase visit duration:

Our goal with this interactive game is to encourage visitors not to merely glance at the painting and move on, but to become truly immersed and actively make choices - naturally leading them to linger longer in the gallery. By extending their visit, guests gain more opportunities to uncover the historical story behind the artwork, engage with NPCs for deeper insights. This richer, more engaging experience not only elevates the quality of their visit but also leaves a more lasting impression of the museum.

Increase visitor participation:

Through interactive choices - deciding whether to uncover more about the painting itself, selecting which NPCs to question, and exploring different narrative paths - visitors move from passive observers to engaged participants. This hands-on involvement encourages them to interact with the artwork on a deeper level, sparking curiosity and conversation, and transforming a simple viewing into an immersive, participatory adventure.

Increase Online Visits

By offering a web-based version - complete with the same branching storylines, NPC interactions, and "reveal or conceal" choices - remote audiences can engage with the painting from anywhere. This digital gateway not only attracts new visitors to our website but also whets their appetite for the in-person exhibit, driving both virtual and real-world traffic while broadening our museum's reach.

Awareness:

Higher satisfaction：

By making meaningful choices - such as whether to reveal the extent of the plague or which NPCs to trust - visitors feel more emotionally invested and gain a personal connection to the story. This sense of ownership and surprise keeps the experience fresh and memorable, so guests leave not only informed but also genuinely delighted by their unique journey through the artwork.

(d) Cognitive Goals

1. Verification

Let experts validate assets

We selected the “Verification” card with a focus on expert validation. In designing the interactive plague-themed experience, we aim to include historical figures, real events, and plausible dialogues based on Bologna’s documented history. To maintain authenticity and credibility, we plan to consult with experts - such as museum curators or history scholars - who can validate our content and ensure our reconstructions reflect accurate historical information.

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2. Ethic

Foster connection to ethical themes (no numbered hints here, just the concept)

Application:
While the focus is historical, the theme of the **plague** naturally raises ethical questions around illness, death, fear, responsibility, and authority. Visitors can reflect on parallels between past and present pandemics, including ethical dilemmas like public health, isolation, and scapegoating.

The “Ethic” card was chosen to subtly encourage reflection on relevant ethical themes. Our plague-era experience invites users to empathize with citizens of historical Bologna facing crisis, echoing modern concerns during events like COVID-19. Through immersive storytelling, players engage with ethical questions about health, social responsibility, and survival, making the experience emotionally and morally resonant.

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3. Perception

Add auditory stimuli; 4. Use visual elements

Application:
Sound design (e.g., coughing, church bells, street noise) and detailed visuals (smoke, plague carts, dirty streets) will be used to make the interactive setting immersive and multi-sensory.

Sample write-up:
To enhance perception and immersion, we selected the “Perception” card with a focus on auditory and visual elements. Environmental sound design - such as bells tolling, distant coughing, or guards shouting - will immerse users in the atmosphere of plague-era Bologna. Additionally, detailed visual textures and lighting effects will bring the historical world to life, anchoring users emotionally and cognitively in the simulated past.

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4. Personal Embodiment

1. Include interaction mechanics; 2. Immerse physically and/or mentally; 3. Create a sense of presence

Application:
The user can move through a city-like map, interact with people or objects, make choices, and “roleplay” a citizen. The player feels present in the world as they talk to guards, collect items, or face moral dilemmas.
We chose the “Personal Embodiment” card to deepen user involvement. The interactive experience positions

users as citizens navigating a quarantined Bologna, encouraging both physical (through interactions) and mental (through decision-making) immersion. The blend of dialogue, exploration, and goal-oriented tasks helps create a strong sense of presence and personal engagement.

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5. Cognition

Selected hints: 1. Make content understandable; 2. Generate knowledge; 4. Provoke reflection

Application:
The user learns real historical facts (e.g., how Bologna responded to the plague), in an understandable and story-driven way. Their decisions or discoveries might lead them to reflect on broader social responses to crisis. The "Cognition" card was selected to promote both understanding and reflection. By embedding historical facts into conversations and objects (like letters, signs, or tools), we help users acquire knowledge through discovery rather than instruction. The design also encourages reflection on how societies deal with pandemics - then and now - making the cognitive impact more meaningful.

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6. Personal Disposition

Selected hints: 2. Include curiosity triggers; 4. Develop identification

Application:
Clues, hidden objects, or optional side conversations act as curiosity triggers. Characters have distinct personalities and problems, helping users emotionally relate to them.

To support personal disposition, we selected curiosity triggers and identification from this card. Optional interactions with side characters (e.g., a grieving widow, a suspicious merchant) deepen the experience and reward exploration. These narrative elements invite users to identify with people from the past, making the experience feel more personal and emotionally anchored.

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7. Language

Selected hints: 2. Explore alternative perspectives; 3. Ask provocative questions; 4. Develop stories

We used the "Language" card to explore perspective and provoke reflection. By letting users engage with various characters holding different worldviews, we create narrative tension and present diverse interpretations of the same crisis. These layered stories foster critical thinking and emotional depth within the interactive experience.

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8. Environmental Familiarity

Selected hints: 1. Create a comfortable environment; 4. Strengthen sense of place
We selected the "Environmental Familiarity" card to ensure users feel grounded in both the digital and physical experience. The reconstructed plague-era Bologna will feature familiar spatial logic - streets, gates, and public spaces - to help users intuitively navigate. In the museum, environmental design elements (like seating, lighting, or signage) will support comfort and orientation, enhancing overall accessibility.

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1. Audience Goals / Authenticity

Card title: *Make Visitors Feel Familiar with the Environment*

To help visitors feel at ease within the historical environment, we designed the digital reconstruction using familiar spatial cues - like town squares, gates, and houses - that mirror the real layout of Bologna. This approach, guided by the card "Make Visitors Feel Familiar with the Environment," creates an intuitive and emotionally engaging experience, even when the context (plague times) is distant or uncomfortable.

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2. Audience Goals / Authenticity

Card title: *Include Interactions and Feedback between Visitors and Environment*

We emphasized dynamic interaction and feedback, following the card "Include Interactions and Feedback between Visitors and Environment." When users engage with objects or characters, the world responds - through dialogue changes, reactions, or environmental cues - making their role in the simulation feel consequential and alive.

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3. Audience Goals / Authenticity

We selected "Stimulate Emotional Responses" to create meaningful emotional engagement. Through carefully written character interactions and environmental storytelling, users confront loss, fear, and resilience in plague-era Bologna. These scenes are designed to resonate emotionally, grounding historical facts in human experience.

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4. Audience Goals / Authenticity

Card title: *Develop Sense of Familiarity*

We used the card "Develop Sense of Familiarity" to help visitors emotionally connect with historical characters. Through universal experiences - such as mourning, caregiving, or questioning authority - we bridge the temporal gap, allowing users to see themselves in the past and enhancing empathy through narrative parallels.

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5. Audience Goals / Sense of Care

Card title: *Make Citizens Learn About the Importance of Colored Collections*

We incorporated the card "Make Citizens Learn About the Importance of Colored Collections" by designing moments where users encounter artifacts or artwork with significant color symbolism. These interactions help visitors appreciate the historical and emotional meaning of color, and raise awareness about the fragility and value of preserving these cultural elements.

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6. Audience Goals / Sense of Care

Following the “Extend Knowledge” card, we embedded optional layers of information throughout the environment. By interacting with characters, reading signage, or discovering hidden notes, users deepen their understanding of the historical context and cultural realities of plague-era Bologna, at their own pace.

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7. Ideation Card

Title: *Theory of Mind Stories*
Description: Visitors are told a story with characters acting with specific behaviors, and are invited to imagine motivations, feelings, and sentiments behind these characters’ actions.

We used the “Theory of Mind Stories” card to deepen psychological engagement. Characters are written with subtle, emotionally rich behaviors that users must interpret. This ambiguity invites visitors to imagine motivations and backstories, prompting introspection and moral reasoning in the face of complex historical situations.

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8. Ideation Card

Title: *Active Listening*
Description: A specific character story is presented to the visitors, who are actively invited to empathize with the protagonist’s sentiments and thoughts.

Inspired by the “Active Listening” card, we designed a character-driven story arc focusing on a single figure’s personal journey during the plague. Through interactive dialogue and emotionally charged moments, visitors are invited to truly listen, understand, and emotionally resonate with the protagonist’s thoughts and struggles.

Star Assets

Bologna Polyptych (Giotto):
An early work by the great master, dated around 1330, which marks the beginning of painting in Bologna.

Madonna of Saint Margaret (Parmigianino):
An example of the grace and elegance typical of Mannerism , created between 1520 and 1530 approximately.

Virgin with Child and Saints (Ludovico Carracci):
A work that shows Ludovico Carracci's mastery in creating balanced and harmonious compositions.

Crucifixion (Titian):
An example of the painter's mature phase, characterised by intense pathos and a vibrant use of colour.

2. **The audience**
   Foreigner visitors/tourists

Exhibits:

In our project, the exhibit becomes a multi-sensory, interactive immersion rather than a simple display: as visitors approach the painting, decision-driven game nodes invite them to choose whether to reveal hidden details, and each touch or selection immediately alters the narrative unfolding on nearby screens. This dynamic feedback loop transforms a static historical work into an experiential story stage where guests actively explore cause and consequence, unlock hidden annotations, and chart their own path through Bologna. Such a design not only captivates families eager for hands-on discovery but also engages inquisitive students and scholarly visitors by blending rigorous historical content with playful, choice-based interaction.

Learning Activity:

In our project, "learning activities" take the form of guided, choice-driven experiences that layer digital challenges and contextual insights onto any painting in the collection - whether it's a Renaissance portrait or a Baroque landscape. Through AR-powered scavenger hunts, interactive map quests, and decision-based mini-games, visitors decode artistic techniques, uncover thematic connections between works, and test their historical knowledge in real time. Each activity adapts to individual pace and curiosity, offering prompts for families to collaborate, students to dive deeper into art history curricula, and enthusiasts to explore advanced curator-level annotations. By blending play with expert content, we create a learning environment that delights novices and satisfies scholars alike, ensuring every guest walks away having actively constructed their own understanding of Bologna's artistic heritage.

Fame:

In our project, "fame" is about turning every visitor into an advocate for the museum by creating shareworthy, buzz-worthy moments around our paintings: whether it's an AR filter that brings a Renaissance portrait to life, a branching-story clip that friends can vote on, or a challenge tied to uncovering hidden details in any work. By designing features that encourage people to capture, tag, and share their unique experiences - both in-gallery and online - we amplify word-of-mouth, earn press coverage for our innovative approach, and cement Bologna's reputation as a forward-thinking art destination.

(a) <u>Motivations</u>

The primary motivations of our target audience - **foreign tourists** - are diverse and culturally driven. Many of them are drawn to museums for:

Escapism: The museum represents an alternative to everyday life - a place to have experiences that provide a pleasing contrast to their home or work. The museum offers a moment of pause and emotional distance from everyday travel logistics. Visitors immerse themselves in beauty and contemplation, far removed from busy city life.

Curiosity: The visitor is not looking for anything in particular: they may be unsure what the museum offers, but want to know, or they may be looking for a surprise, or something out of the ordinary. Tourists are often unfamiliar with the specific artworks, artists, or religious symbolism. They are eager to discover surprising narratives or visual details that connect to broader cultural or historical contexts.

Time travel: The visitor enjoys travelling back or forward in time to a experience a way of life that is unfamiliar but intriguing. Through engaging storytelling and interaction, we invite visitors to "step into" the world of Renaissance and Baroque Italy. This temporal dislocation is pleasurable, allowing a glimpse into past belief systems, politics, and art-making practices.

(b) Barriers

Despite their interest, tourists often face barriers that hinder deep engagement:

Lack of access to technology: While many travelers use smartphones, inconsistent internet access or lack of roaming data can limit the use of online or app-based experiences. Not all tourists are able or willing to download additional apps during their visit.

Educationally disadvantaged: Some visitors may feel distanced from classical art due to limited prior exposure to European religious history, art terminology, or local cultural references. This can lead to feelings of inadequacy or confusion.

Low self esteem: Especially in crowded or unfamiliar museum settings, visitors might avoid experiences that appear too "highbrow" or require active participation. They might shy away from using interactive tools in front of others out of fear of misunderstanding or "doing it wrong."

(c) Capabilities

Despite these barriers, our target audience generally possesses solid digital and cognitive capabilities that we can design for:

Mobile apps: Visitors are usually comfortable downloading and using mobile apps - especially if they are lightweight, intuitive, and available in multiple languages.

Websites: Most tourists have no problem accessing websites via mobile browsers and can interact with embedded multimedia, such as short videos or interactive maps.

Mixed reality: Younger and tech-savvy travelers are often excited by AR or VR experiences, especially if they are clearly introduced and require no extra equipment beyond their phone.

(d) Devices

smart phone: A telephone that is connected to the Internet and GPS, and supports a range of apps that vastly extend its functionality. Importantly, it allows the users to create and share digital content.

virtual reality system: Head-mounted display, hand-held controllers and other feedback devices, which give the user a sense of being in a virtual environment rather than the real world.

3. Concept

Here you specify:

(a) Problem/s you are facing with your project, try to be specific (i.e. attracting an audience that usually is not interested to museums)

The visitors to this museum pass by the art displayed too quickly due to the fact that either not enough information has been provided or the information provided is, to put simply, boring. Most paintings are related to biblical stories that many people, even christians themselves are not educated on. Other paintings are simply portraits of characters such as a pope. So it is quite understandable that the visitors might find the overall experience to be underwhelming.

(b) how your project will face the problem/s

By changing the narrative of certain paintings and gamifying the experience of the assets that do not have much to offer in terms of background and context. For example, when it comes to the biblical pieces, highlighting painting techniques or facts about the characters within said paintings can bring forth a new perspective on an already-told story.

Museological approach

1. Interpretive Museology
– You shift the focus from factual labels to engaging storytelling. Instead of simply stating a painting is "The Martyrdom of Saint Lawrence," you tell visitors why his story mattered in his time, and how it relates to modern ideas like sacrifice, power, or protest.

2. Constructivist Museology
– Visitors are not passive receivers of information. Instead, you encourage them to form their own connections through interactive, personalized experiences. You might let them choose paths, answer questions, or even "unlock" stories behind artworks.

3. Gamification in Museology
– You use playful strategies (quizzes, missions, challenges) to make under-explained or repetitive works - like portraits of popes - more engaging. For instance, a visitor might try to match a pope to a historical event or uncover a "secret" by completing a clue-based game.

4. Transmedia Storytelling
– Stories unfold across different media: wall labels, apps, audio guides, or physical objects. A visitor might hear one part of a narrative through a QR code, then see it resolved in a short animation on a screen.

(c) specific themes and topics you have selected as case study for your PW

Theme: Lost Stories of Faith and Power
Paintings rooted in Christian iconography, but told in a way that emphasizes human drama, historical intrigue, or symbolic meaning relevant today.

Example Case Studies:

Martyrdom of a Saint – tell it as a cinematic thriller with a character introduction, rising tension, and emotional stakes.

Portrait of a Pope – create an interactive profile: the visitor chooses from "roles" (reformer, diplomat, patron of art) and discovers which pope matches which description.

4. **Requirements**
Here you specify the requirements needed to reach the goals

Must (essential to reach the goals)

- **Financial Support**: Budget for development (software, hardware, licensing), museum installation, and ongoing maintenance.

- **Historical Expertise**: Collaboration with historians and art curators (e.g., local university, museum staff) to vet all content.

- **Technical Team**: Developers/UX designers to build the interactive experience, plus IT support for installation and troubleshooting.
- **Hardware & Infrastructure**:
    - Tablets or kiosks (or VR/AR headsets) for visitor interaction
    - Reliable network and power supply in exhibition spaces
- **Content Management System**: Backend to author, update, and localize all text, audio, and media assets.
- **Accessibility Accommodations**: Wheelchair-friendly physical layout, adjustable font sizes, captioning or transcript options for audio.

Should (highly desirable, but not critical day one)

- **Audio Equipment**: Quality headphones or directional speakers to deliver immersive soundscapes without cross-talk.
- **Multilingual Support**: At least Italian and English text/audio, with potential for additional languages.
- **Analytics and Logging**: Basic usage tracking (which scenes are viewed, choices made) to evaluate effectiveness.
- **Staff Training**: Briefing museum guides and front-desk staff on how to help visitors with the experience.
- **Physical Props & Décor**: Period-style signage, banners, and décor elements to blend the digital and real-world environments.

Could (nice-to-haves if budget/time allows)

- **Advanced AR/VR Features**: Full-headset VR or marker-based AR on visitors' smartphones.
- **Haptic Feedback Devices**: Wearables or hand controllers that simulate textures (e.g., rough lime walls).
- **Branching Story Extensions**: More side-quests, alternate endings, or optional "deep-dive" modules on specific paintings.
- **Social Sharing Integration**: Photo-op filters or quick-share badges so visitors can post their "Detective" credentials online.

- **Gamification Layers**: Leaderboards, achievement badges, or timed challenges for repeat visits.

Won't (out of scope for this phase)

- **Live Actors or Costumed Role-Play**: No human-actor interactions - entirely digital/automated NPCs.
- **Permanent Structural Renovations**: Avoid major construction or changes to the historic building's fabric.
- **Physical Souvenir Production**: No plastic or print merchandise production - the experience remains within the museum space.

5. **Ideation**

Here you specify:
engagement: decision (The visitor must make a choice that affects their subsequent experience), episodes (Exhibits, content and story are divided into parts and revealed over time or multiple visits.)

The idea behind our interactive story is for the visitors to decide on how much information they want to absorb. Based on their decision to talk to characters, read item descriptions, or visiting places, they will be exposed to different

Technology:

Online Platform (Part (or all) of the visit takes place online, whether this is on a website, social network, or elsewhere):

In our ideation phase, the online platform serves as the digital hub where all facets of the museum's narrative come together - linking the branching-story game mechanics, and AR-enhanced learning activities into a seamless web experience. Visitors can log in from anywhere to embark on their own choice-driven journey through Bologna's art collection, track achievements unlocked in the gallery, and share insights or questions with a global community. By designing the platform to adapt to different user profiles we ensure that the museum extends beyond its walls, engaging audiences year-round, driving online visits, and building a living, ever-growing ecosystem around our collection.

Visual makers (Visitors scan objects to reveal hidden information or trigger an event):

In our ideation phase, "visual makers" turn every painting into a gateway for discovery by embedding discreet scan-points - QR codes, NFC tags, or AR markers - next to works throughout the gallery. When visitors scan these with their phones or museum devices, they instantly unlock hidden layers: detailed close-ups of brushstrokes, contextual maps showing where the scene takes place, or even mini-games that dramatize a painting's themes. This seamless scan-to-reveal mechanic not only deepens engagement with each artwork but also creates surprise moments of delight, encourages exploration across the collection, and bridges the physical and digital realms in a single, intuitive gesture.

Personal soundtrack (Music and sounds change based on the location and progress of visitors):

As guests move through the galleries - whether they're investigating a dramatic plague scene or admiring a serene Renaissance portrait - the system curates and adapts a private soundscape that reflects the mood, historical context, and interactive choices they make. By blending location-based audio cues with their own preferences (genre, tempo, or dramatic intensity), we deepen emotional resonance, guide attention to hidden details, and create a memorable, multisensory narrative soundtrack that visitors can even download afterward and share with friends.

Projection (The environment around the visitor is enhanced with visual projections):

As guests make choices in the branching game or scan markers on a painting, contextual imagery - such as swirling plague-era streets, painterly brushstrokes coming to life, or thematic maps of medieval Bologna - flows seamlessly around them. This enveloping projection not only reinforces the narrative and mood of each artwork but also draws visitors physically into the story, creating a shared, cinematic environment that evolves in real time with their journey.

Augmented reality (The visitor views digital content overlaid into the surrounding environment):

"Augmented reality" invites visitors to see digital layers seamlessly overlaid on any painting - be it a delicate Renaissance portrait or a sweeping Baroque landscape - through their smartphone or AR headset. By blending virtual elements with the physical space, AR transforms passive observation into an active dialogue with the art, sparking curiosity and enabling each visitor to uncover personalized insights at their own pace.

Virtual reality (The visitor enters an immersive virtual environment that temporarily replaces the real world):

In our ideation phase, "virtual reality" transports visitors into fully immersive, three-dimensional re-creations of any artwork's world - whether stepping into a sunlit Renaissance courtyard, wandering through a plague-year market, or exploring the artist's studio in 3D. By donning a VR headset, guests leave the gallery behind and move freely within a vividly rendered environment where they can inspect every detail up close, trigger interactive story beats, and even collaborate with other virtual explorers. This total sensory takeover not only deepens emotional and spatial understanding of the art but also allows us to craft bespoke experiences - guided tours, time-travel simulations, or free-form discovery - that delight both on-site audiences and remote visitors tuning in from anywhere.

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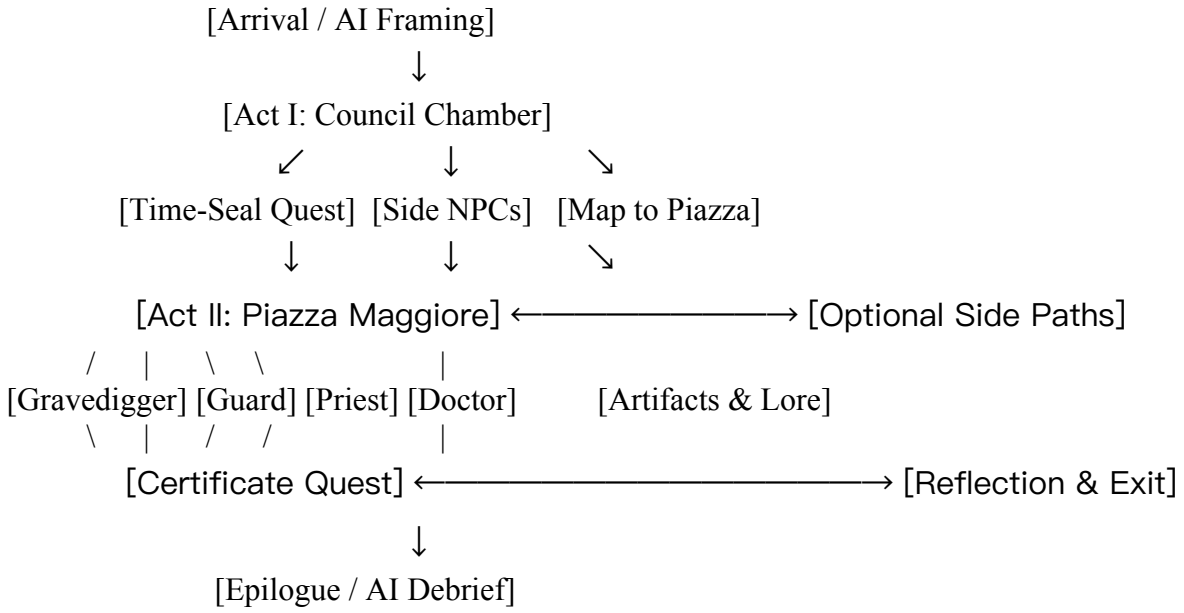
1. Ideation

(a) Experience (User's Perspective)

- **Arrival & Framing:** The visitor steps into a dimly lit foyer, greeted by a brief holo-message from a future AI Detective setting the mission: verify the true events of Bologna's 1630 plague.
- **Immersion:** They "enter" the simulation through a timed-latch gate and find themselves in the Gothic council chamber (Act I), then spill into the ruined Piazza Maggiore (Act II).
- **Agency & Choice:** At each major location, users choose whom to engage (guards, gravediggers, priests, doctors), collecting artifacts (time-seal, prayer scroll, disinfectant vial) that unlock new paths.

- **Core Quest vs. Side Stories:** A clear main objective (obtain plague-clearance certificate and escape) anchors the visit; optional interactions unlock richer historical context and emotional narratives.
- **Closure & Reflection:** On exit, the holo-interface debriefs their "data upload," reveals the real painting, and offers prompts for reflecting on ethical parallels today (public health, solidarity).

(b) Conceptual Map



- **Nodes:** key scenes, quests, NPC groups, reflective exit
- **Edges:** player flows, side-quests, artifact dependencies

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(d) The Story (Interactive Narrative)

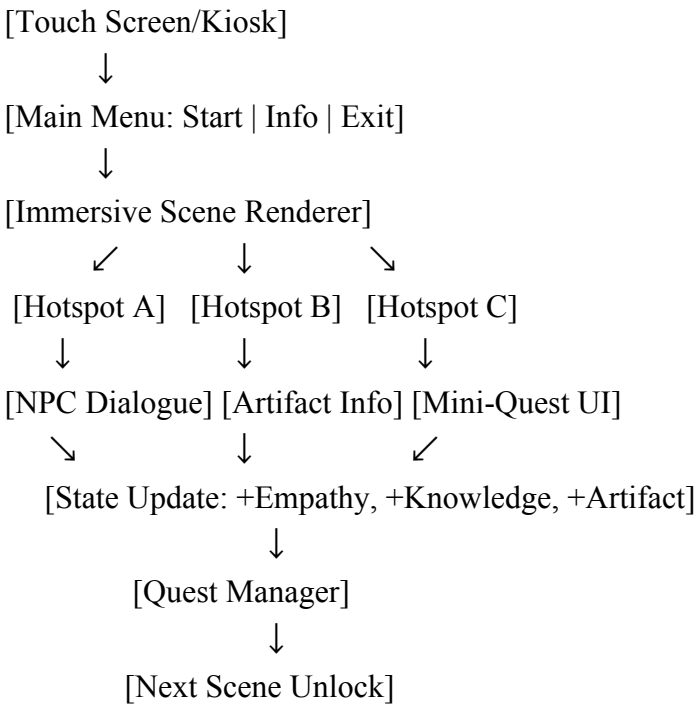
- **Twine Structure:**
    1. **Start:** "Prologue" node in Palazzo Pubblico (choices: press Spada for info or accept pass immediately)
    2. **Branch:** leads to "Piazza Overview" with three clickable hotspots (Grada pit, Banner ruins, Clinic tent).
    3. **NPC Encounters:** each opens dialogue passages with variables tracking "Empathy," "Knowledge," and "Artifacts Collected."
    4. **Core Path:** once "Disinfectant Vial" and "Time-Seal" are acquired, unlock "Clinic Entry" passage.

5. **Escape Node:** present certificate → "Procession & Exit" → debrief.

6. **Multiple Endings:** based on empathy score (e.g., "Historical Recorder," "Cold Technician," or "Sympathetic Chronicler").

(f) Interaction Between App & Users

Interaction Diagram (simplified)



- **User Actions:** tap hotspots, choose dialogue options, collect items
- **App Responses:** play audio-visual feedback, update quest log, unlock new content

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(g) Foreseen Workflow

1. **Content Gathering:** historian interviews → script & dialogue drafts

2. **Design & Prototyping:** Twine narrative + UI wireframes

3. **Asset Creation:** 3D models of Piazza, NPC animations, soundscapes

4. **Development:** integrate scenes in Unity/Unreal or web-based engine

5. **Testing:** internal QA → pilot with small visitor groups → accessibility audit
6. **Deployment:** install kiosks/headsets → staff training
7. **Evaluation & Iteration:** analytics review → content tweaks → bug fixes

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(h) Set-up: Hardware, Software & Media

- **Hardware:**
  - Touchscreen kiosks or tablets (⩾10" display) in each zone
  - Over-ear headphones or directional speakers for sound isolation
  - Optional AR markers and visitor smartphones (for lightweight AR)
- **Software:**
  - Unity or WebGL engine for interactive scenes
  - Twine (or Ink) for branching narrative scripting
  - CMS (e.g., Strapi) to manage localized text and media
- **Digital Assets:**
  - High-resolution scans of the Guido Reni banner
  - 3D model of Piazza Maggiore circa 1630
  - NPC portraits, animation cycles, and voice-over recordings
  - Ambient sound loops (bells, crowd murmur, coughing, carts)

(i) Further Development & Maintenance Issues

- **Content Updates:** historians may refine scripts—CMS must allow rapid text/audio swaps.
- **Hardware Lifecycles:** plan for kiosk head-unit replacement every 5 years; budget for headphone hygiene and replacement.

- **Software Patches:** security updates for CMS and interactive app; version control for narrative branches.
- **Analytics & Feedback:** integrate basic dashboards to track passage completion rates and user dwell-time, informing future expansions.
- **Localization:** potential rollout in additional languages; maintain translation workflows.

You can tailor each section's depth and formatting to your brief's template, but this structure ensures you hit every required point with clarity and concrete examples.

6. **Disruption**
   Here you can explain threats and potential issues with your project and how you would face it:

   Cognitive goals:
   Threat: The experience could become too playful and sacrifice historical or educational value, or it may be overly focused on information and fail to capture attention.
   Solution: We blend cognitive goals and playful storytelling through layered content. Visitors can explore basic information passively or dive deeper via interactive dialogue, choices, or minigames - allowing both entertainment and education to coexist.

   Passive engagement:
   Threat: Visitors may skip parts of the experience, especially when they're on tight schedules or distracted.
   Solution: The experience could be modular and choice-based - visitors receive feedback and rewards (e.g., story fragments, visual/sound changes) for any level of interaction. Even brief engagement adds value and provides a sense of progress. In order to reduce the risk of passivity, we ultimately decided to make the story as straightforward, and uncomplicated as possible. Hence, the experience is a matter of choice and not forced.

   Focus:
   Threat: Noise levels, crowding, or interface complexity might disrupt immersion or create anxiety.
   Solution: Our setup avoids complex hardware and focuses on self-directed, screen-based interaction. We propose quiet zones with directional audio and clearly marked "interaction stations" to reduce confusion. We will also offer headphones for the visitors. The Twine experience can also be used remotely, offering a quieter digital alternative.

7. **Teams roles and work**
   Add the names and what each of the team has done (remember that you are going to be evaluated in accordance with your role and work within the team)
   Cyrus: Designed the overall experience and story, influenced by the storytelling methods in the Dark Souls game franchise.
   Johanna: Look and Feel: UX Design of the Application with FIGMA and creating pictures for the Twine Experience.
   Yang: Implementation - the production of Twine interactive stories.

8. **UX Scenario**

Link to the Twine scenario: https://kikayang.github.io/Wunderkammer/

FIGMA: https://www.figma.com/design/9k0rasaLdv74scsxcF2DmT/Mobile-Application-Museum-Game?node-id=0-1&t=eWEs53UpOu30Q8fJ-1

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