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# META-MUSEUM UNPACKED #03

*Confidence, Empathy, Resilience through Cultural Heritage*



The **META-MUSEUM project** is a major research initiative, funded by the European Union's Horizon Europe programme, dedicated to *transforming* how we connect with cultural heritage. Moving beyond the traditional view of museums, the project explores how active engaging with cultural heritage can equip citizens with essential tools for modern life: confidence, resilience, and empathy. META-MUSEUM employs a **multi-disciplinary expertise**, and works to provide evidence-based ways for cultural experiences to address current societal challenges, making heritage not just something to observe, but a powerful, dynamic force for personal and community well-being.

To share these discoveries and behind-the-scenes insights with everyone and to bridge the gap between academic research and broad public understanding, the META-MUSEUM publishes META-MUSEUM UNPACKED, an open-access short article series. Published every three months on the project website, *META-MUSEUM UNPACKED* offers an easy-to-read window into how cultural heritage is being redefined for a more confident and resilient future.

*Enjoy it!*

# UNPACKING: FROM DIGITAL INTERVENTIONS TO MEANINGFUL EXPERIENCES

**Digital tools can become powerful assets to encounter and experience Cultural Heritage, and this is exactly where META-MUSEUM wants to do things differently. Our goal is: transformation, not only information transfer.**

Digital interventions and applications are nothing new to the Museum World. Many museums are already familiar with the usage of apps, virtual installations and info points, projections and interactive installations to engage their visitors. Digital tools can become powerful assets to encounter and experience Cultural Heritage, and this is exactly where META-MUSEUM wants to do things differently. Our goal is: transformation, not only information transfer.

We like to think of it as a shift: instead of asking what kind of technology might be most fitting to transport knowledge, we try to ask how digital interventions can help to form a deeper connection with Cultural Heritage. How can they help people feeling more connected, confident, resilient, and engaged rather than simply informed about the past?

## **But what are our main approaches to achieving that goal?**

The TransformEANS theory identifies the traditional museum experience as a rather linear and unidirectional model, based on a recurring pattern: “I enter an exhibition, I stop in front of artworks or objects, I try to gather some factual information, I leave.”

The focus? Collecting facts and “data” about Cultural Heritage, mainly accessible to a small elite group of scholars and experts.

With the META-MUSEUM prototypes, we aim to trigger something different: personal access, reflection, emotional involvement, unlocking the potential of cultural storytelling to achieve truly transformative encounters. We want visitors to enhance values such as empathy, confidence, and resilience instead of just educating themselves in a conventional sense.



META-MUSEUM PROTOTYPES ON TEST AT THE  
BIENNALE TECNOLOGIA TURIN 2026

## Our prototypes? They are instruments – meant to be measured, compared and evolve.

So in short: Where your usual digital intervention focuses on the question “does this help our visitors to learn about the collection?” the META-MUSEUM prototypes ask “does this change how the visitor feels about themselves, their values and their surrounding world?” to be paired with possibilities to conduct empirical measurements to verify it.

## The most important player? Narratives and contemporary connections

The most important engine for a meaningful interaction is a narrative that sparks a connection. Objects rarely speak for themselves, and an ancient papyrus or an archaeological artifact can be seen in quite a different light as soon as it becomes connected to a story about people, conflicts, choices, hopes, and fears we might still know today. Therefore, we are building on a rather simple insight: visitors are more likely to engage with cultural heritage and carry a transformation home when they can relate

Therefore, the prototypes usually begin by identifying a value, reflective question or sort of “takeaway message” that resonates through heritage. We refer to that as a “narrative solution:” a set of practices and tools that build cultural contents, encompassing the attributes of the museum space, multisensory stimuli and digital storytelling. As Bonacini has shown, cultural storytelling fulfils several distinct functions: community, referential, empathic, identity, value, and “springboard” (this term describes the ability to understand what might happen in the future, by reading about what happened in the past)<sup>1</sup>.

All of them can be activated when an emotional connection is created, which happens especially by moving away from

1 E. Bonacini, *I musei e le forme dello Storytelling digitale*, Aracne Editrice, Roma 2020;



PARTICIPANTS ARE MEASURING THEIR CONTEMPORARY FEARS AND JOINING CO-CREATION ACTIVITIES AT THE BIENNALE TECNOLOGIA TURIN 2026



didactic and self-referential methods of knowledge transmission<sup>2</sup>.

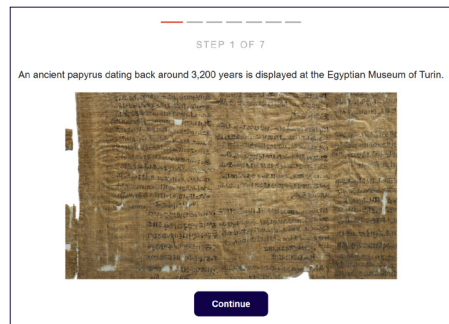
Therefore, the technical cores of each prototype, whether being audio, XR enhancements or other digital formats, are meant to support visitors making a connection to Cultural Heritage in various contexts, inside and outside museums.

### Objects are meant to connect to human experience

It is not about information or entertainment, it is about how stories from the past can help us reflect on (and be steeled for) challenges of the present. Digital storytelling can be particularly powerful here, because it can suffice as a bridge between the tangible and the intangible, the physical and the virtual: stories create emotions, they connect familiar pathways in our brains, and through them, emotions become understandable and relatable (Sarbin, 1989; Hogan, 2011).

The field of “Narrative Empathy Theory” investigates how narrative techniques elicit empathic responses and encourage immersion (Nell, 1988; Ryan, 2001; Keen, 2006; 2008) – yet until now, little attention has been paid to the connection between empathy and cultural heritage storytelling specifically. META-MUSEUM aims to fill this gap.

One of our first examples comes from the Museo Egizio in Torino, where the Deir el-Medina papyrus is on display. The papyrus documents one of the earliest recorded strikes in human history and through storytelling, it becomes a story about courage, facing uncertainty, and – in the end – standing up for one’s rights. Themes we are very familiar with today. Our first prototype connects reflective questions with an audio experience to connect past and present through sound. Starting from the first strike in recorded history, preserved at the Egyptian Museum of Turin, it invites participants to reflect on how millennia of history haven’t really changed our lives that much. The experience questions users on modern challenges connected to that ancient event and explores the values that



THE DIGITAL PROTOTYPE INSPIRED BY THE MUSEO EGIZIO IN TORINO, THE DEIR EL-MEDINA PAPYRUS.

2 C. Dal Maso (edited by), *Racconti da museo - Storytelling d'autore per il museo 4.0*, Edipuglia, 2019



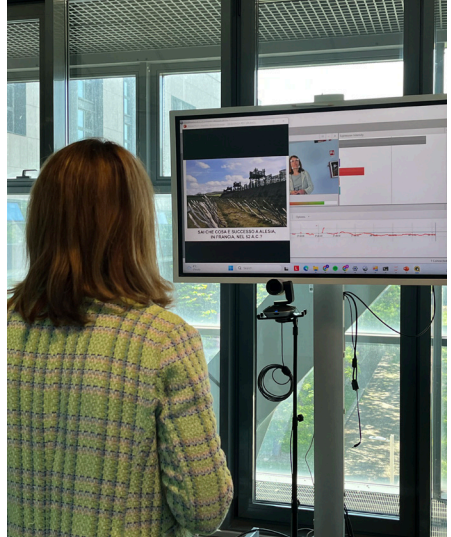
emerge during the listening journey. The finale holds a surprise: an unexpected request to choose a song that resonates with the object's themes, completing the digital experience in a personal and creative way.

## But enough of the theory! Let's put our approaches to the test!

In April the Biennale Tecnologia event in Turin offered a unique opportunity to explore how visitors engage with our prototypes.

The event took place at the headquarters of Politecnico di Torino, where the POLITO and VILNIUS TECH teams worked side-by-side to present our latest research and results to the public, ranging from fellow scientists to curious citizens and, most importantly, many young people and students. The atmosphere was electric with curiosity. The highlight of our showcase was the live testing of the M4 system, an innovative tool currently being developed by our partners at VILNIUS TECH.

We conducted over 60 real-time tests, measuring the emotional responses of participants as they engaged with brief cultural experiences to test our preliminary prototypes. Seeing the "invisible" data of human emotion transform in real time into measurable insights was a breakthrough moment, proving how technology can help us understand the profound impact of culture on our well-being.



LIVE TESTING OF THE M4 SYSTEM MEASURING EMOTIONAL RESPONSES OF PARTICIPANTS AT THE BIENNALE TECNOLOGIA TURIN 2026.

To test our first prototypes and gather user feedback, we involved an audience composed mainly of young people, who are not always passionate about culture or Cultural Heritage.

In testing one of our digital prototypes it was particularly interesting to study how visitors approach a two-dimensional object, such as a historical photo or, why not, also a painting. We structured a multi-step experience: after a quick initial glance, participants shared a first keyword; then, they selected two details of the image they wanted to explore further, unlocking specific captions. At the end of the process, they could add a second keyword.

The results of this first phase reveal that a quick, unmediated observation often risks leading to a misunderstanding of the artwork's meaning. They also demonstrate that traditional captions are not enough to guide visitors toward a deeper understanding and a more meaningful connection with cultural heritage: we need diverse, interactive content that is also capable of asking questions and make people reflect! Another experience focused on creating connections between past and present, bringing cultural heritage objects into dialogue with contemporary figures and values. Guided by the concept "A journey through cultural heritage and the values that connect us across time", the goal is to offer people the opportunity to forge unexpected connections, revealing cultural heritage from entirely new and diverse perspectives.

## What comes next? You do.

Museums have always been about people, and so is META-MUSEUM. The real test of our prototypes is not just in the data we collect or the emotions we measure. It is in what you take home with you: a question that stays with you, a connection you did not expect, a story from the past that suddenly feels very present.

We are only getting started. New prototypes are being tested, new partnerships are taking shape, and new stories are waiting to be told: from ancient papyri to photographs, from Turin to Vilnius and beyond.

Want to be part of it? Follow our journey, stay up to date with upcoming events, and explore more on our website. Whether you are a curious reader, a museum lover, or someone who's never set foot in an exhibition hall, this project is for you, too.



## WEBSITE

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GA 101132488 | HORIZON-CL2-2023-HERITAGE-01-04



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