The National Museum of Italian Emigration in Genoa

Digital interfaces for a museum made of stories

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The National Museum of Italian Emigration was inaugurated in May 2022 in the medieval *Commenda di San Giovanni di Pré* in the Old Town of Genoa. The exhibits are entirely multimedia, making the museum a perfect case study to address some of the most salient issues when using digital technologies for cultural heritage. This paper focuses on the design of digital interfaces that answer differing and sometimes conflicting visitor needs while making sure that the whole museum maintains a coherent visual identity.

The museum's sixteen areas are spread over three floors. At the entrance, visitors create digital passports that they will use throughout the museum and receive NFC bracelets to activate exhibits. Every explored exhibit will put a stamp on their passports.

On the ground floor, visitors are welcomed by an old migrant while a symbolic gate opens to show landscapes and views of enormous cities.

Passing through 5 large images of people departing (late 1900s– 2000s), visitors reach the area dedicated to nutrition. A zenith-lit table shows the diet of Italian farmers in the late 1800s, and a touchscreen provides details on common illnesses due to malnutrition.

Visitors enter then a dark space: on the wall he watches a scene happening inside a tavern in the early 1900s. A rich *Mericano* (Italian emigrant to the Americas) tells the tales of rich crops, gigantic cows and magic machines to a group of poor impressionable labourers. While he speaks, on the ceiling archival photos of such wonders appear in a dream-like setting. When he mentions the famous dollar tree, the lights turn on and highlight a large tree adorned with golden coins, hanging bottom up from the ceiling.

On the 1st floor five recessed monitors in a large wooden world map allow to browse through hundreds of stories, grouped together according to the destination of Italian emigration.

While another area faces the issue of those who did not leave for strictly economic reasons through an audio description from six wooden silhouettes, a 360° immersive projection represents politicians who have made Italy's history and their ideas on emigration.

The last installation on the first floor is made of red ropes and burnished sheet metal to commemorate the tragedies and massacres of Italian emigrants.

On the 2nd floor visitors enter a vertical maze where 6 characters interact in a foreign language in different contexts. When visitors reach the higher level of the maze, they get down through a slide, a cathartic experience to escape the hostile characters.

The next room simulates a construction site, while a last section explores the settled emigrant life, before the descent to the ground floor: a large hall dedicated to contemporary and internal migrations.

The final area allows visitors to give their feedback. They can select images and words to create a postcard to describe what emigration means after the visit and send it to their email address, together with their passport.

A museum made of stories

Stories exist independently of their sensory demonstration. However, performance is the only means by which they reach the public. Without representation, it is as though they do not exist. In this sense, the digital technology medium is the agency through which a museum of stories can be created.

MEI is a museum without artefacts or artworks, there is no display of tangible heritage. It is an exhibition of stories, with more than 250 stories narrated through various media.

The curators collected and selected materials from archives and libraries around the world. A small number of stories were collected ad hoc for the museum, usually in the form of interviews. Finally, almost twenty stories used actors in period costumes to accentuate the emotional impact on visitors.

Digital Interfaces for a museum made of stories

In this article, the authors focus on the design of digital interfaces for the many exhibits of the MEI. This case study is particularly interested in the methods used for their development throughout the fifteen months the project lasted and in the solutions devised to meet the needs of this distinctive museum and its two types of visitors.

Two types of visitors

The National Museum of Italian Emigration has a double pattern of use: as an archive and as a museum. Visitors who enter the MEI have two main motivations, these two approaches respond to different needs in terms of UX and UI.

The first mode (the *visitor-researcher*) regards those who enter the museum to search for the story of their father, their family name, or the shipwreck where their uncle died.

They prefer an in-depth exploration of a small number of stories to find documents and testimonies that give details. This is a "vertical" use of stories. The digital medium must therefore exhibit a large

quantity and variety of material, organise it according to various criteria, allow archive research, improve the quality of photographic documents and allow them to be zoomed.

The second experience mode (the *visitor-explorer*) is more "horizontal". These visitors approach emigration as a historical theme. In this case, the museum display and the digital interfaces need to transform an accumulation of individual stories into collective memory.

Digital interfaces

Digital interfaces – and especially touchscreens – play a crucial role in reconciling these two modes of experience, as they have been designed to allow visitors access to multiple levels of information.

The basic unit of the interface is the story, which can contain texts, images, audio files, or videos of various lengths. Each story has a cover, where one can read a few lines to decide whether to switch on *visitor-researcher* mode or scroll to the next one.

Stories are gathered in collections and their visualization can vary depending on curatorial choices about the message to convey in specific exhibits.

This organization of content is also very flexible, as stories can be implemented or revised through a dedicated CMS (Content Management System).
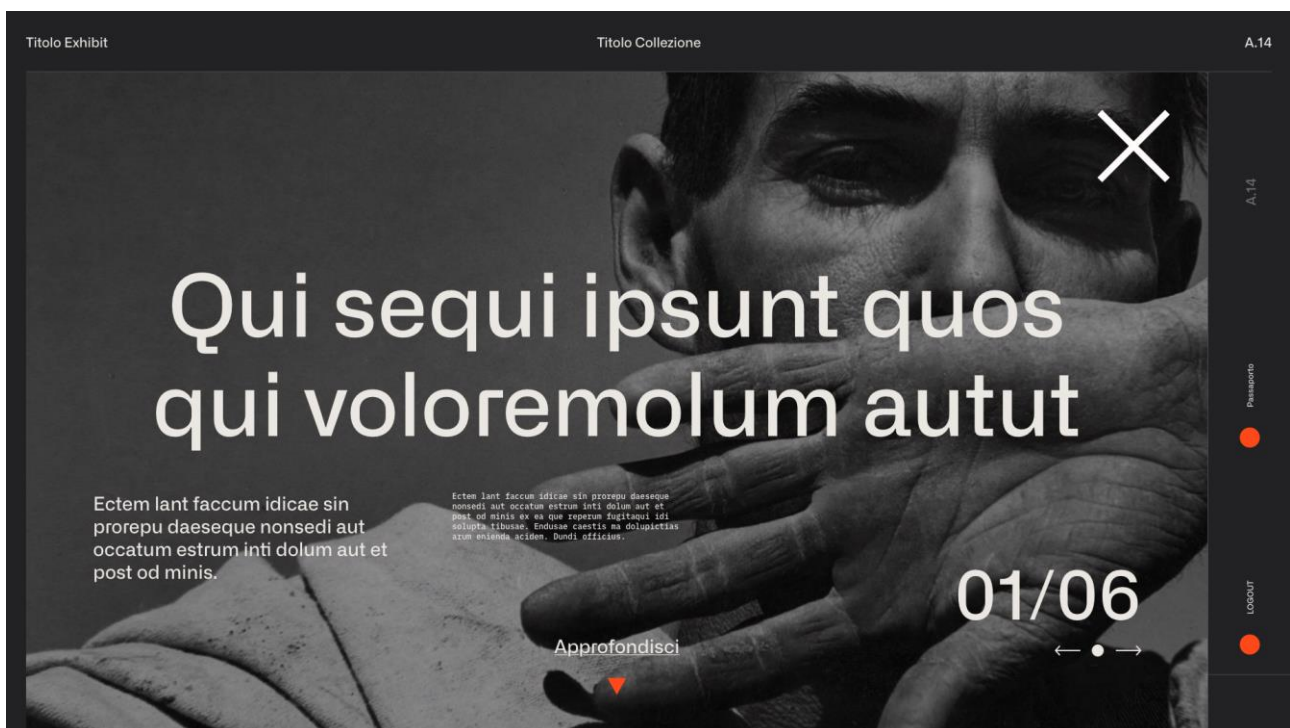

Fig. 1. The cover of a story, National Museum of Italian Emigration, Genova, Italy (© ETT spa).

The design processes

First step: analysis

A study of the different kinds of available documents and their distribution in the stories and throughout the museum > Study and grouping of the possible classes of stories > Identification of all mediums and languages to support their most effective dissemination > Grouping of stories within collections.

Second step: design guidelines

Design a typographic project that distinguishes the type of content and its narrative function at a glance > Study a title and subtitle system integrated with the images > Define a treatment of images to accommodate files of differing size, quality, style and shape without losing their individual detail > Progressive elimination of all non-functional design elements.

Third step: access pathways

A study of the collections and groupings of collections available for each exhibit > A study of differing access paths to the collections and stories > Design visualisation and selection of tools for each exhibit.

Fourth step: revision

Observation of user interactions with exhibits > Engagement with curators and visitor assistants > Accessibility revision > Revision of immediateness.

Conclusions

When building a multimedia museum, the design of user interfaces is one of the main tools at hand, allowing flexibility of content, while retaining a distinct identity to shape the museum narrative.

This is particularly true for museums of intangible heritage. Here digital technologies are agents (not just tools) of the museum experience, because they determine the modes of access to an ephemeral heritage, which has no materiality if not the one of multimedia installations.

Author Contributions

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