

Dante's House Museum, A Virtual Tour enabling the enjoyment of cultural heritage

How digital technologies can ensure virtual experiences to face times of pandemic

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INTRODUCTION

After an initial period of uncertainty, museums have had to find a proactive response to the pandemic, shifting their focus to the virtual, to address needs inside and outside their communities, engaging new audiences by reinforcing their digital activities. Among the several initiatives aimed at making museums and collections accessible online, ETT S.p.A. implemented the *Dante’s House Museum Virtual Tour* project. The museum, therefore, transformed this moment of crisis into an opportunity, by using digital tools and virtual environments to make this new fit-out accessible to all audiences. In this way, innovative digital solutions were useful to increase the attractiveness of the museum and to allow visitors to start experiencing it from home, while waiting to visit it in person.

THE MULTIMEDIA FIT-OUT, DANTE’S HOUSE MUSEUM

Inside Dante Alighieri’s House, in Florence, ETT S.p.A. designed and implemented a multisensory journey, consisting of state-of-the-art technologies, like immersive rooms and Virtual Reality, allowing visitors to discover life and works of one of the greatest figures in the history of Italian and international literature. The Museum’s innovative multimedia fit-out was designed to celebrate the 700th anniversary of Dante Alighieri’s death, but like many other cultural institutions, it had to face a delayed opening due to the pandemic situation. Thanks to this project, visitors can experience a highly engaging journey to look deeply into the Supreme Poet’s thoughts and the fundamental themes of his story and his poetry, according to various levels of experiential learning.

THE VIRTUAL TOUR

The Museo Casa di Dante Virtual Tour follows the division of the museum floors and allows the exploration of the rooms and their multimedia contents. It has been published on the Museum website: users can walk virtually through the rooms of the Museum and discover its multimedia exhibition,

with a captivating and user-oriented interface was created for easy user interaction.

The virtual tour is web-based, available from any desktop or mobile device (computer, smartphone, tablet, cardboard): it uses Matterport technology, a specific software framework for three-dimensional mapping of environments. The technology adopted has made it possible to scan the environments and map them in real time, thus reconstructing the spaces in an extremely realistic way and maintaining the sense of perspective intact. By moving around the virtual spaces, using a cursor or eye pointer, visitors are able to manage their movements independently.

In this way, in line with Milgram's continuum and its technological and anthropologic value, the real world - Dante's house and the newly set up museum - meets the virtual world, which faithfully reproduces the environments and allows new and different audiences to come into contact with the museum. A link between the *real* and the *virtual*, extending the visitor's experience beyond the physical space. As already mentioned, the online project was implemented following the closure of museums due to Covid-19 emergency. During the pandemic, museums have rediscovered their educational and social vocation: they have helped to reduce isolation and loneliness, thanks to the increase in their digital services, to engage people who stay at home. The virtual experience does not lose the focus on in-depth content and its scientific nature, and in general on the purpose of the museum. This technology creates a connection between scanned places and in-depth contents: interaction points (called *hotspots*) (Fig.1), located in the digitalised environment give access to specially prepared multimedia insights (texts, images, videos). The Museum and the Virtual Tour itinerary are described below.

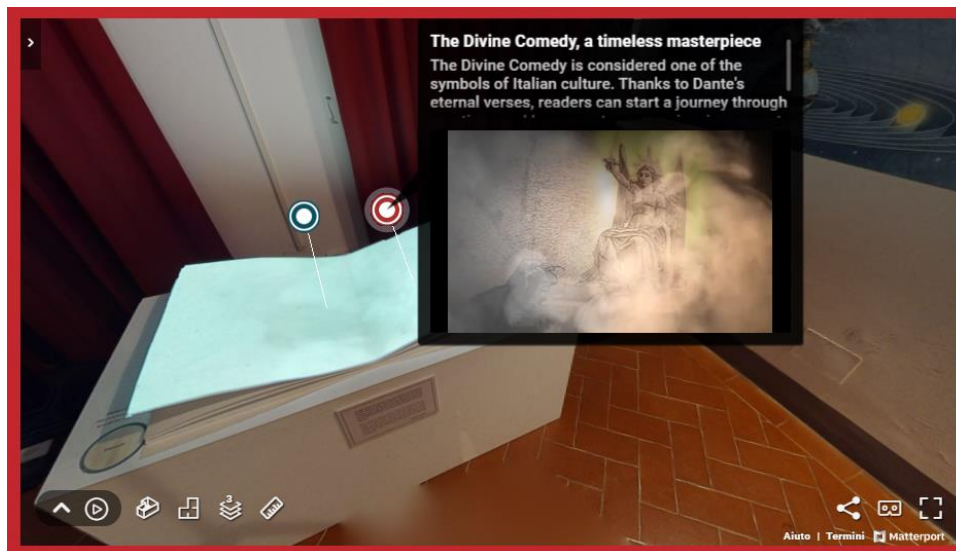


Fig. 1. Dante's House Museum Virtual Tour, Room 7, The Divine Comedy, hotspots

ENTRANCE STAIRS - Knowing a man to know an era

The Itinerary starts from the Museum entrance stairs, where a wall-mounted monitor entitled "*Knowing a man to know an era*" introduces the dualism of the narrative key to the tour: Dante, poet and father of the Italian language, but also a man of his time.

FIRST FLOOR

Room 1 - Who was Dante? - In the first room, a Hologram reproduces the original representation of Dante's face, created by 3D modeling based on the most famous mortuary masks of the Poet. A timeline on a backlit wall shows the chronology of Dante's life and, at the same time, the salient historical events of the city of Florence and the medieval European world. A wall-mounted touch monitor offers visitors an in-depth insight into the artist's personality.

Room 2 - The Battle of Campaldino - In an immersive room, a rear projection, made with a mix of drone footage, actors, Computer Graphics illustrations and original music, shows the Battle of Campaldino.

Room 3 - The arts and the Florentine economy - In this room, backlit panels show the coats of arms of the Florentine Arts and Crafts. An interactive table with reproductions of the coats of arms allows users to discover which coat of arms belongs to which Art.

Room 4a – Florentine political life - A projection on a model allows, in a narrative key enriched with visual suggestions, to discover the dynamic and economically booming Florence in which Dante lived.

Room 4b – The Poet's exile - In this room, a backlit panel shows the stages of Dante's exile on a map of Central Italy. Two touch monitors guide visitors to an understanding of the time of his exile from the city of Florence. Wearing Oculus Go visors, visitors can enjoy a VR experience of a glimpse of medieval life in a finely decorated room overlooking a courtyard.

SECOND FLOOR

Room 5 – Dante, father of the Italian Language -The room is dedicated to investigating the poet's literary and philosophical education. Thanks to a wall monitor and a proximity sensor, *Brunetto Latini*, Dante's teacher, narrates the impact that his illustrious pupil had on the Italian language.

Room 6 – Dante's Bedroom - Through openings in the entrance door and thanks to a life-size reproduction of Dante's figure, visitors can observe the Poet inside his bedroom (Fig.2).

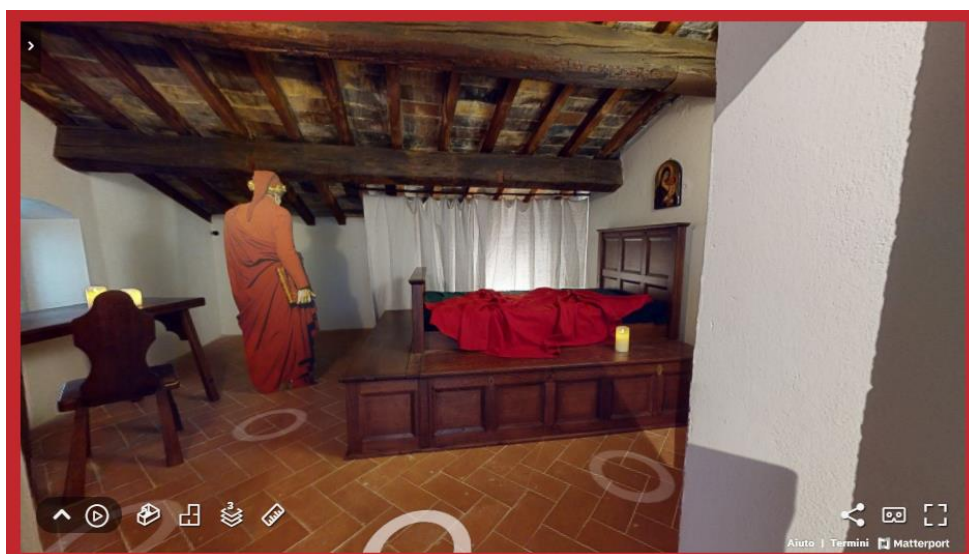


Fig. 2. Dante's House Museum Virtual Tour, Room 6, Dante's Bedroom

Room 7 – The Divine Comedy - At the centre of an immersive room, a large open volume is animated by the projection of original visual suggestions, inspired by famous historical and artistic representations of the Comedy. The most significant passages of the Divine Comedy, read by Francesco Pannofino, accompany the turning of the pages and guide the visitor in an immersive journey through the canticles.

THIRD FLOOR

Room 8 – Dante’s City - Thanks to a Virtual Reality experience, from the detail of the fresco of the Madonna della Misericordia inside the Loggia del Bigallo, a 360° immersive journey starts, showing the main buildings of Florence present in the Middle Ages and still recognisable today.

Room 9 – Florence is yours too - A touch station allows visitors to select their preferred thematic route, in order to rediscover Florence’s historic centre with new eyes, in the footsteps of Dante.

CONCLUSIONS

The museum doors were closed by the pandemic, and reopened thanks to technology and the potential of virtual worlds. Even though digital technologies cannot fully replace the direct experience of visiting a museum and the social interaction that goes with it, the Dante’s House Museum Virtual Tour constitutes a very important experience that allowed the public to get involved in the museum’s activities and to discover its new interactive and multimedia fit-out. Designing a virtual space dedicated to museum in the age of digital media is not just about moving content from the real to the virtual worlds, but mediating them as layers of information augmenting the traditional museum and exhibitions potential, like game-like space. During the pandemic and lockdown, new audiences were attracted by this new way of communicating and relating, based not on geographical distance but on proximity of intentions and interests. Virtual tours and technologies are a great tool for in-depth analysis and innovation, to develop a new, successful and different style of communication, closer to the public and its growing need for connection. Providing the visitor with an adequate pre-experience is increasingly becoming a fundamental step in the customer journey, which has to become a *never-ending experience* capable of accompanying new audiences on a journey of discovery and affection, generating a growing desire to visit the museum.

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