



CASTELAO. LOOKING AT GALICIA

An Immersive Exhibition that Reinterprets Castelao's Legacy through Digital Art

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ABSTRACT

In 2025, coinciding with the 75th anniversary of Castelao's death, the Year of Castelao was declared. Within this context, the exhibition Castelao. Looking at Galicia, held at the Museo Gaiás, stands out. The exhibition combines original works with holograms, virtual reality, and artificial intelligence to offer an immersive exploration of his life and work. The project strengthens accessibility and inclusion, while also raising ethical debates concerning the use of AI and historical fidelity. It is concluded that digitalisation expands cultural mediation and heritage preservation, provided that documentary rigour and respect for the original work are maintained.

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1. Introduction

The year 2025 represents a cause for celebration in Galicia, marking the 75th anniversary of the death of Alfonso Daniel Rodríguez Castelao (Rianxo, 1886 – Buenos Aires, 1950). The Xunta de Galicia has designated this year as the Year of Castelao. The author is one of the most important figures in Galician culture, renowned for his multifaceted work as an artist, illustrator, writer, teacher, and leading reference of Galician nationalist thought.

Castelao's work constitutes one of the most significant legacies in Galician bibliography and maintains a notable presence both in university education and in research production. In this context, there is a clear need for new critical approaches that allow the interpretation of his figure to be updated from contemporary perspectives.

To commemorate his legacy, numerous exhibitions have been organised, among which those held at the Museo de Pontevedra and the Museo Gaiás of the City of Culture in Santiago de Compostela stand out. The latter is particularly distinctive for its incorporation of digital art.

This initiative emerges at a key moment in which museums are seeking to transform themselves in order to meet the needs of an inclusive audience and to fulfil their social and educational role, creating a specialised space focused on the different communicative possibilities of museum language and intellectual stimulation (Stengler & Hidalgo Gil, 2023).

As a result of this museum strategy, an ambitious project has been presented at the Museo Gaiás in Santiago de Compostela, centred on the most human dimension of Castelao's figure. The exhibition develops a living display adapted to the public through the narration of his life, his contributions, and his artistic universe, integrating resources of generative artificial intelligence, 3D animation, and virtual reality through the creation of holograms, videomapping, and immersive experiences.

In this sense, the exhibition *Castelao. Looking at Galicia* (2025-2026), held at the Museo Gaiás, aims to improve accessibility and inclusivity through the use of audiovisual resources, promoting new languages that favour the dissemination and research of the historical trajectory of Castelao's work and figure in Galicia. In this way, it contributes to ensuring that present-day society continues to value and respect what previous generations defended.

This article analyses the exhibition as a device of technological mediation that not only reactualises Castelao's figure in a performative key, but also problematises notions of patrimonial authenticity, cultural memory, and immersive experience, while highlighting the risk of displacing the original work in favour of its digital reconstruction

2. Theoretical Framework

2.1. Heritage Preservation through Digitisation

The benefits of digitalisation as a means of conserving cultural heritage are numerous (Ávila Rodríguez et al., 2025; Germak et al., 2021; Hernández-Manso & Jiménez-Pérez, 2025). Traditional museums have had to adapt their curatorial models and exhibition devices to respond to contemporary sociocultural transformations, shifting the emphasis from a hegemonic institutional narrative towards approaches that focus on the subjectivity and interpretative experience of the viewer (Labella Martínez & García Lirio, 2025). In this process, they have incorporated and innovated with technological resources that extend the museum space beyond its physical limits, promoting the development of meaningful educational systems that favour the preservation of cultural heritage in an accessible, participatory and interactive manner. These strategies not only strengthen collaboration between different institutions and the bond between the work and the viewer but also enable global access to content and the consultation of archives without the need for physical handling, thus contributing to greater long-term heritage conservation (Jover Peris & Sempere Ripoll, 2024).

Virtual reality has evolved considerably, developing across various sectors, not only in museum languages but also in areas such as consumption, marketing, gamification in tourist guides, and as a pedagogical tool (Gil Ibáñez et al., 2025). These technologies combine to generate extended reality, offering the client or user a richer interactive and immersive experience by interrelating the digital and physical environments through various mobile devices (Puspasari, 2020).

In the artistic field, digital resources have been progressively incorporated as a complement to temporary exhibitions. These tools not only allow the possible digitalisation of the exhibited pieces but also the recording of exhibitions in the form of videos (known as virtual visits or recreations). Moreover,

the use of digital tools to support exhibition elements facilitates greater engagement with an audience that is increasingly familiar with technology from an early age (Yanar et al., 2026). This last aspect is of particular importance as it helps generate greater interest and active participation.

Complementarily, the incorporation of audiovisual language into the exhibition experience favours accessibility and engagement with social diversity, reaching both young audiences and people without specialised training. Immersive technologies have become integrated into our everyday perception, enabling new forms of approach to historical contexts and complex situations, enriching their interpretation and complementing the original work without replacing it.

Nevertheless, it is important to note that the use of digital tools, while favouring access and interaction with the viewer, also entails certain disadvantages that may affect the exhibition experience. Among these are technological overdependence, distraction of the public, or the loss of direct experience with the exhibited material. The challenge lies in the limitation of time and space (Vega et al., 2026) for the effective understanding of the content.

Despite the possible disadvantages, it is worth noting that these digital dissemination strategies are highly relevant in the management of artistic and intellectual heritage, particularly regarding historical figures whose work constitutes a fundamental element of our cultural memory

2.2. Castelao and his Heritage Value

Alfonso Daniel Rodríguez Castelao (Figure 1) devoted his entire life to the social, cultural and political defence of Galicia. From a humble background, Castelao always maintained a strong commitment and vocation to connect with the people, which led him to have a constant presence in the media. As the historian Susana Cendán Caaveiro (2016) points out, “in the Galicia of the 1920s, Castelao enjoyed extraordinary popularity which, as Luis Seoane himself remarked, ‘he had the gift of communication’” (p. 118).

Figure 1. Pacheco, portrait of Alfonso Daniel Rodríguez Castelao, ca. 1920



Source(s): Pacheco Archive, Vigo City Council.

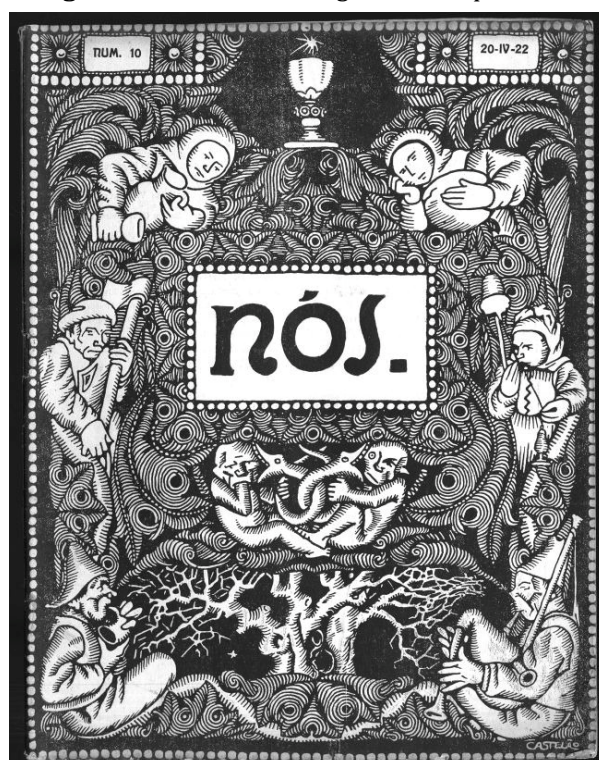
In the entirety of his work – literary, artistic, political, and otherwise – his moral commitment to Galicia is evident. As numerous historians have noted, “Castelao’s ethical commitment to the turbulent times in which he lived was incompatible with the passive observation of reality” (Cendán Caaveiro, 2016, p. 119). This attitude explains his active involvement in the social and political life of his time, as well as the close relationship between his output and his ideological thinking. His work thus became a fundamental tool for reaching the people, particularly through the press, and for articulating his nationalist militancy.

In this context of commitment and action, exile plays a central role in his personal and cultural trajectory. Buenos Aires became, for Castelao and other exiled Galician nationalist artists – such as Luis Seoane – during the Civil War and the Franco dictatorship, the main centre for the continuity and

projection of Galician culture and identity. Through contact with Francisco Fernández del Riego, who remained in Galicia under the Franco regime, a cultural network was established that enabled the publication in Argentina of books written in Galician which could not be published in their place of origin due to censorship. Thanks to the work of this nationalist group in exile, the use of the Galician language was defended and its preservation guaranteed in a context of cultural repression (Real López, 2024).

His political, literary, artistic, and intellectual facets have been extensively analysed on multiple occasions (Carballo-Calero Ramos et al., 2017; Liñares Giraut & Fundación Castelao, 1997). With regard to his graphic work (Figure 2), Castelao's importance is such that in 2013 the Asociación Galega de Profesionais da Ilustración (AGPI), in collaboration with the Consellería de Cultura, Lingua e Xuventude of the Xunta de Galicia, established 30 January as Día da Ilustración, coinciding with his date of birth, in recognition of his legacy as a fundamental figure in Galician illustration.

Figure 2. Cover of *Nós* magazine, 20 April 1922



Source(s): *Nós* magazine. (1922, 20 April). Issue 10, Year III.

Regarding the dissemination of his legacy, a significant example of a digital dissemination strategy is the Year of Castelao, in which the promotion and access to his work were organised primarily through digital media, including the creation of the website Castelao2025.gal. This site presents the various promotional activities that will take place throughout the commemorative year (Castelao 2025, n.d.).

Nevertheless, despite the existence of a broad and well-studied bibliography, the need persists to further explore both the dissemination of his work and the systematic study of his output. Particularly relevant is the preparation of comprehensive catalogues of his artistic oeuvre, including his work as a graphic humourist in the press of the period, as well as the analysis and interpretation of biographical aspects that remain insufficiently studied (Nós televisión, 2025).

3. Methodology

The research adopts a qualitative interpretative approach through a case study that combines critical museographic analysis as its analytical strategy. This design allows the researcher to act as an interpreter of the process, reorienting observation from grounded information and situated understanding (Stake, 1999). It thus facilitates the integration of a diverse range of sources of evidence (Yin, 2018).

The main objective of the study is to analyse the technological and pedagogical tools applied through digital art for the reconstruction of Castelao's cultural legacy and memory, as well as to examine how the immersive experience contributes to the impact and knowledge generated in the viewer.

The study moves from analytical recording to the sensitive field, where the active presence of the researcher becomes a fundamental value for the narration and interpretation of the data. From this involvement, a critical reconstruction is made of Castelao's vital and artistic trajectory, translated into the design of an immersive exhibition that questions and transcends the codes of the traditional museum, opting instead for a spatial, narrative, and emotional experience.

The methodological design enables the development of narrative analysis strategies, both in the theoretical context and in the empirical process, aimed at the evaluation and validation of the research results.

The study consists of four phases. The first phase encompasses contextualisation, in which the study is situated and delimited within the contemporary cultural, artistic, and museographic phenomenon surrounding the multifaceted artist Castelao (as an artist, politician, and Galician cultural reference), highlighting aspects of his life trajectory and creative output in relation to the digital resources used in the exhibition for public mediation. Contextualisation makes it possible to understand the author's legacy and the impact of his work on the viewer, establishing an interpretative framework that supports the subsequent phases of the study.

The second phase is structured around data collection through the triangulation of sources. This includes, firstly, the review of curatorial documents and exhibition guides as works that directly address Castelao's narrative and are supported by recent academic literature; secondly, the analysis of audiovisual publications intended to promote the exhibition in audiovisual media, as well as the website created by the Consello da Cultura Galega on the occasion of the Year of Castelao 2025, in collaboration with the Fundación Castelao (2025); and finally, consultation of both academic databases and specialised museology journals. This search is limited to the concepts of immersive experience, accessibility, and museum, with the aim of providing an up-to-date view of the contemporary framework of digital design strategies oriented towards accessibility and inclusive experience in the museum field.

The third phase focuses on critical analysis, in which the exhibition is evaluated on the basis of the interaction between museographic elements, applied technologies, and the perception of the researcher as spectator. We employ observational methodology as a descriptive procedure, drawing on subjective judgement in the selection and interpretation of data (Jiménez Chaves, 2012), and developing an in-depth analysis of the museographic aspects, centred on the immersive exhibition, interaction in space-time, and cultural preservation.

Strengths, limitations, and tensions are identified in the mediation of Castelao's legacy through digital resources, as well as the effectiveness of the immersive experience in conveying knowledge and generating reflection on his work. This critical assessment guides the interpretation of the findings and underpins the conclusions of the study. Each exhibition element and digital resource was recorded, categorised according to its narrative function, and contrasted with bibliographic information, thereby evaluating historical coherence, fidelity to Castelao's legacy, and potential impact on the viewer.

The fourth phase presents the evaluation of the study from a narrative and grounded information perspective. In this phase, the exhibition and its digital resources are analysed according to the narrative they articulate, in order to examine how this communicates Castelao's vital and artistic trajectory. The coherence between the contents presented, their fidelity to historical information, and their impact on the public are evaluated, taking into account the degree of familiarity of visitors with the figure of the author.

It should be noted that the study focuses on our direct experience as researchers within the exhibition, since no data were collected from any public evaluation platforms (forums, social networks, etc.) or structured reviews. This approach allows for a situated and grounded interpretative analysis, drawing on our knowledge of Castelao's cultural and artistic legacy.

It is important to emphasise that, as researchers, we start from a well-grounded contextualisation based not only on the review of documents but also on our knowledge of the figure and work of Alfonso Daniel Rodríguez Castelao as Galician cultural heritage. This positioning implies recognising that our

analysis is not constructed from a neutral viewpoint, but from a previously established historical and symbolic understanding.

This leads us to a relevant issue: the reception of the exhibition according to the viewer's background. The exhibition experience does not occur in an interpretative vacuum but is mediated by collective memory, cultural heritage, and the degree of familiarity with Castelao's figure. In this sense, technological mediation can bring closer and amplify the understanding of Castelao's relevance and work among non-specialist audiences, but it can also generate certain interpretative tensions among those spectators with well-established prior knowledge of the original work.

Therefore, the analysis of this exhibition proposal attends not only to the use of technological resources but also to their relationship with the author's works, his biography, and the expectations of the visitor, considering the immersive exhibition experience as a dynamic process that departs from the traditional structure of museum exhibitions.

4. The Exhibition *Castelao. Looking at Galicia as a Technological Mediation Device*

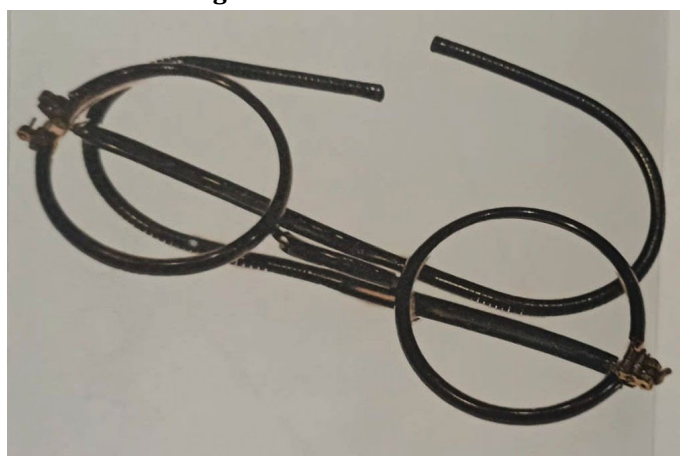
The exhibition, organised by the Xunta de Galicia and the Fundación Cidade da Cultura, with the collaboration of the Fundación Castelao, was held at the Museo Gaiás in Santiago de Compostela. It was open to the public from 26 June 2025 to 11 January 2026 and attracted more than 34,000 visitors. Considered the most advanced technological and cultural exhibition devoted to this figure, it undoubtedly captured the attention of a wide and diverse audience.

The exhibition space is structured around the words of the artist, who used his artistic work as a means of knowledge and connection with the people. It presents a synthesis of his oeuvre, his life, and his commitment to the Galician language and culture through *Sempre en Galiza*, published in Buenos Aires in 1944. As he himself stated:

Art for me was nothing more than an element, a resource, a means of expression, and with pencil or pen I only wanted to be a faithful interpreter of my people, of their pain and their hopes. I always drew in Galician; I always wrote in Galician; and if you remove what is Galician and human in my work, nothing would remain of it (Castelao, 1944, cited in Carreiro, 1999, p. 22).

The exhibition was conceived around ten key moments in Castelao's life, combining both personal objects and original works by the author (Figure 3) with other pieces recreated using artificial intelligence (Figure 4). The visit requires a specific chronological order, which facilitates comprehension and the following of the content, creating a clear itinerary organised into spaces named Exhibition Space, Origin, Wedding, Darkness, Teacher, Statute, War, Exile, Travels, and Immersive Experience. As visitors progress, there is a gradual increase in interaction with the spectator, culminating in the application of various digital art tools towards the end of the visit, where a profound immersive experience is offered.

Figure 3. Castelao's Glasses



Source(s): Gaiás Museum exhibition brochure, 2026. Castelao Foundation.

Figure 4. Castelao, art teacher

Source(s): Photograph by the authors, 2025. Gaiás Museum, Santiago de Compostela.

Following the analysis of the exhibition route and the technological resources implemented within it, it was decided to structure this section according to three analytical dimensions — hyperrealist reconstruction, cultural memory, and immersive experience. These dimensions make it possible to illustrate how the different rooms contribute to, and in some cases problematise, technological mediation, the construction of memory, and the sensory experience.

4.1. Hyperrealist Reconstruction

Associated rooms: Exhibition Space, Wedding, Teacher, Statute, War.

The exhibition seeks to reconstruct the figure of Castelao through various digital tools, generating a hyperrealist vision of the man, including his voice. The artistic conception and direction of the exhibition were carried out by Carlos Seijo in collaboration with the Maxina studio, a Galician company specialising in virtual and mixed-reality experiences applied to cultural heritage. Through “holograms, virtual reality, tracking sensors, videomapping and generative artificial intelligence” (Maxina, 2025), they aim to deepen and bring the viewer closer to Castelao’s literary, artistic and political figure and his commitment to Galicia.

Castelao’s voice was recreated from the only existing recording of him, a fragment lasting 2 minutes and 18 seconds, preserved in the Arquivo Sonoro de Galicia of the Consello da Cultura Galega (Consello da Cultura Galega, 2025). This recording was made by phonopostal in 1941 in Buenos Aires on the occasion of the premiere in Montevideo of his play *Os vellos non deben de namorarse*, which Castelao was unable to attend in person.

As Xaime Estévez (2025), member of the Arquivo Sonoro de Galicia, states:

This “phonopostal” is perhaps the most relevant for our culture: first, because it is the only recorded register of Castelao’s voice that exists today and, secondly, because in those little more than two minutes it condenses phrases and words that come from his mind but also from his heart. The spoken voice adds soul to the words and brings us closer in a unique way to the feelings of our leading Galician nationalist.

The original speech, delivered in Spanish, was used to train the artificial intelligence, combined with the interpretation of professional voice actors, with the aim of translating into Galician what Castelao’s

voice would have sounded like. In the exhibition, this generated voice is used to highlight fragments of works such as *Cousas* (1926), the speech *Alba de Gloria* delivered on the occasion of Día da Patria Galega (1948), and *O Diario 1921* (1977). Including the narration in the language that Castelao defended was a relevant and coherent element for the idealisation and symbolism of what his figure represents in Galicia. However, as will be addressed later, it also brings with it certain controversial aspects.

Building on this work with the voice, the project seeks to explore new ways of approaching Castelao's work through generative intelligence, addressing both public and private dimensions. These new means of perception developed through generative artificial intelligence add to the accessibility of his work, already available in multiple institutions, thereby broadening the ways in which the public can engage with his legacy.

The use of these tools raises questions about patrimonial authenticity: to what extent does digital recreation preserve the essence of the author and his work?

This proposal is realised in an exhibition route that deploys these resources across different thematic rooms (examples of technological application):

- **Exhibition Space:** The experience begins with a hologram of Castelao, who cordially and interactively welcomes the visitor. His life-size figure observes and greets the spectator, thereby introducing the visit in a closer and more participatory manner. This room functions as an introductory space and presents a traditional museographic aesthetic, in which pictorial works, original publications, photographs and personal objects are displayed, such as his metal spectacles or his fountain pen. In this first stop, the author's pictorial facet is shown, focused on the representation of the blind and the working class, together with the series of illustrations *Cousas da vida* (1922-1933), through which he sought to improve Galician reality in times of censorship and war, as well as to establish a form of communication with the population to preserve Galician identity and language. It is the only room in which the hologram is used as the sole technological resource, thus preserving the original essence of the work and the most personal side of the author through traditional museum language.
- **Wedding:** The work is presented as a scenography that includes an analogue camera facing the portrait of the couple. This portrait is projected at life size, first showing the reproduction of the original black-and-white analogue photograph of Castelao's wedding to Virginia in 1912, followed by the version recreated, interactive and enhanced by artificial intelligence. The projection plays in a loop, offering the visitor a continuous transition from the analogue to the digital and giving movement to the scene, prompting reflection on memory, reproduction and the use of technology as mediation in photographic representation.
- **Teacher:** In this space, a holographic projection presents Castelao as a drawing teacher, first at the Instituto Geográfico y Estadístico in Pontevedra in 1917 and later at a private university during his exile in the United States in 1938. In this room, a series of period school desks are arranged in the style of a conventional classroom, facing a videomapping in which Castelao is recreated drawing. On the sides of the videomapping, drawings are projected statically with luminous effects. These were donated by the family of a former pupil, María Ameijeiras Rodríguez, and date from 1935.
- **Statute:** In this part of the exhibition, an AI-generated scene of a rally is presented in which Castelao promotes the Statute of Autonomy of Galicia at the meeting of the Xuventude Galeguista in Lira (1933), later approved in 1936. Artificial intelligence is applied to the original photograph to create a slight movement effect through video, also incorporating the generated voice in the speech.
- **War:** This area of the exhibition recreates the Civil War of 1936, accompanied by sound effects of bombing and sirens that evoke the chaos of the period. Castelao flees to various parts of Spain, such as Valencia and later Barcelona. The scene shown represents a bombing in the Catalan city during which Castelao is wounded after falling down an empty lift shaft. The lift is recreated realistically, and the visitor must lean inside it to encounter the hologram of the wounded Castelao and observe him directly.

4.2. Cultural Memory

Associated rooms: Origin, Exile, Travels, Darkness.

The exhibition presents Castelao's life and work as a vehicle for Galician cultural memory, demonstrating a firm commitment to the Galician language, identity, and culture, as well as the impact of historical events on his personal and professional trajectory.

To complement this approach, the exhibition experience incorporates other technological tools, such as virtual reality headsets, which envelop the visitor and generate immersion in a three-dimensional space where voice, image, and narrative are integrated, offering a more complete interaction with the figure of Castelao.

The rooms Origin, Exile, Travels, and Darkness focus precisely on these aspects:

- **Origin:** This section presents a brief journey through the author's childhood, from his family's emigration to his early years in the village of Rianxo (A Coruña) and his education. It is represented through a window-like structure containing several holograms. In these, the author appears in different scenes and stages of his childhood, such as images of him in his native fishing village or, later in Buenos Aires, reading while seated on a bench in front of his father's store (pulpería) in the Argentine Pampas. This period was particularly significant for Castelao, as it highlights his curiosity in listening to or reading news about the Cuban War and his interest in the caricatures of the Galician journalist Xosé Cao Luaces (Carreiro, 1999).
- **Darkness:** This section of the exhibition is presented through virtual reality headsets, which allow the visitor to immerse themselves, via a 3D animation, in one of the most painful episodes of the author's life. It depicts both the progressive loss of his sight, which led him into a deep state of depression, and the death of his only son. The room contains four virtual reality headsets mounted at different heights on the wall to ensure accessibility and comfort during viewing. Virtual reality generates movement and depth in the scene, immersing the visitor in a sense of social isolation. This is achieved by creating an intimate, dimly lit space that enhances the virtual experience and immersion. A notable aspect of the immersive virtual reality experience is that it is used statically: the visitor assumes the perspective of a "digital voyeur", observing through the eyepieces of the headsets placed along the wall of the room. Consequently, the interaction is unilateral and limits the sensory and bodily involvement in the immersive space.
- **Exile:** This space represents a significant part of Castelao's life, viewing Galicia from afar. It addresses the author's flight following the coup d'état, as he sought financial support to aid the Republican army, with which he published three documents on the Civil War. Castelao fled to Cuba, Russia, and the United States. This scene can be interpreted through the lens of the nostalgia experienced by the author.
- **Travels:** The room dedicated to his flight narrates his journeys and connects with the previous room to give meaning to the exile. It features a hologram viewed through ship portholes, showing Castelao sailing towards New York, with the Statue of Liberty visible in the background, creating movement and depth in the scene.

In addition, to strengthen cultural memory, various educational activities were organised, including workshops and an escape room designed to create a more enigmatic route that would invite visitors to discover the symbolism, and hidden messages present in the exhibited works. The immersive theatre production *Castelao e Savelev: olladas converxentes*, performed by the company Oistes? Teatro in collaboration with Teatro en Punto, was specifically created for the exhibition and staged in the same space, allowing both actors and audience to interact with the exhibition pieces. Free guided tours were also offered on a regular basis, along with specialised visits for educational centres adapted to different age groups.

In this way, the exhibition sought not only to display Castelao's work but also to performativise his legacy, turning the visitor into an active agent in the reconstruction of this chapter of Galician cultural memory.

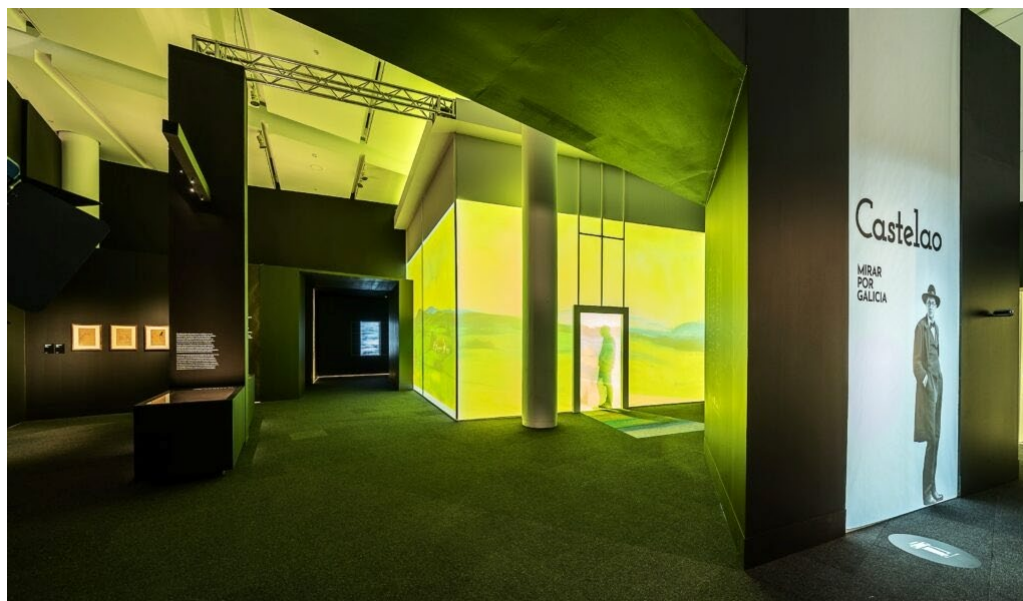
4.3. Immersive Experience

Associated room: Immersive Experience.

The final space features a cubic video projection (Figures 5 and 6): a summary of Castelao's life and creative journey, narrated in the first person. It incorporates the author's real voice recreated through artificial intelligence and presents a selection of his works brought to life using 3D animation and artificial intelligence techniques in an artistic recreation of his creative spirit.

The projections are supported by high-precision projectors and a quadraphonic sound system with subwoofer, specifically designed to enhance the sensory experience and fully immerse the visitor within the artistic work.

Figure 5. Video projection cube



Source(s): Estudio Maxina, 2025.

Figure 6. Still from one of the video projections



Source(s): Estudio Maxina, 2025.

The immersive experience allows play with time in order to sequence a multisensory route in which the spectator becomes actively involved in the analysis and exploration of the content, generating meaning and knowledge from a contemporary social perspective. We draw on the view of Casales

Navarrete (2022), who stresses the need for a meticulous structure and direction to be established for the understanding of a specific theme.

The organisation of the exhibition *Castelao. Looking at Galicia* involved a major collaborative effort in the compilation and creation of new languages and formats through audiovisual media, with the aim of immersing the visitor in the experience and lived reality of Castelao as a human and social phenomenon, creating a visual illusion. For this to occur, a visual education must be developed that enables appreciation of the different elements that comprise it — sound, image and atmosphere — which together give meaning to what is perceived.

The Immersive Experience room places the spectator inside a cubic paper space that favours enveloping listening through Castelao's voice in the first person, recreated by AI to convey a close and profoundly human experience of the author. His vital and artistic trajectory is condensed through a careful selection of texts and plastic works, presented dynamically by means of 3D animation and artificial intelligence. The whole is conceived as an integral audiovisual experience that summarises the visit and generates an immersive atmosphere thanks to the combination of sound and chronologically organised images.

5. Ethical and Museographic Implications

The exhibition includes an easy-read resource prepared by the Accessibility Network of the Federación Autismo Galicia in collaboration with the Museo Centro Gaiás: a guide adapted by people with autism, which enables Castelao's work to reach a wider audience (Museo Centro Gaiás, 2025). Easy read is a globally recognised tool of cognitive accessibility aimed at facilitating access to information for people with reading difficulties.

Similarly, videos in Spanish Sign Language (LSE) were incorporated to improve access for deaf visitors during the exhibition tour, thanks to the FAXPG Accessibility Service. The entire visit offered QR code links in the different rooms. Other resources included a magnetic induction loop for use with hearing aids or cochlear implants, and audio content adapted for visitors with visual impairments.

In this context, the use of digital tools is fundamental to facilitating access, enhancing the visitor experience, and promoting a more inclusive approach to museum content, for both specialist and general audiences. However, sensory exclusion is observed in immersive experiences aimed at people with visual impairments when accessible technological resources are not incorporated, which significantly limits their participation in the exhibition space and restricts full access to knowledge (Vaz et al., 2020). Cepillo Marí (2025) argues that for “effective inclusion”, the artistic experience in virtual environments requires the work to be adapted to the cognitive and sensory processes of visually impaired spectators, integrating solutions that guarantee accessibility through haptic interfaces (such as digital twins or detailed 3D models) and computational encoding methods, incorporating touch and bodily involvement as alternatives to the aesthetic visual experience.

The organisations involved in producing this exhibition highlight *Castelao. Looking at Galicia* as a landmark example in the responsible and ethical use of generative artificial intelligence, without degrading the author's original work. A considerable effort was made in the collection of documents and visual archives, including plastic works, illustrations, photographs, and personal objects belonging to Castelao, thanks to the collaboration of numerous entities, institutions, libraries, and museums that hold his entire vital and artistic trajectory. As Borrell Giró (2023) notes:

There are two basic premises without which there can be neither a museum nor an exhibition: research and documentation. A library, an archive or a museum cannot function without a complex information management system that ranges from inventory to the online dissemination of information, without which, for example, a lapidary wall could not function. Likewise, without the study of the museum's collections, no activity is possible. From the simplest label to the most complex immersive audiovisual, every element of the exhibition requires information provided by specialists (p. 18)

While the use of digital tools to create immersive spaces is pertinent in some rooms, this approach should be qualified in the light of theoretical contributions from various authors. In this regard, Casales Navarrete (2022) points out that immersion is not a novel concept exclusive to digital technologies.

Historically, artists of different periods have employed visual, spatial, and sensory strategies to create in the spectator the illusion of being immersed in a particular environment. Examples include frescoes covering several walls of the same room to simulate a 360° enveloping experience, as well as the invention of devices such as the Panorama (1787), the Diorama (1822), the Cinéorama (1897), or the Mareorama (1900). From this perspective, video projection onto a cubic space can be understood as a contemporary evolution of these historical precedents, drawing on the possibilities of current digital tools to intensify, more effectively, the sensation of immersion in both real and fictional environments.

Nevertheless, regarding the use of artificial intelligence to generate new content based on Castelao's extensive legacy, certain reservations arise. While creating a hologram of Castelao from the numerous preserved photographs of the author may constitute a resource that attracts greater attention in an increasingly digitalised world, its application raises debates about historical fidelity. However, the organisers clearly indicate which parts of the exhibition were created with AI and which correspond to original works by the author.

Regarding the recreation of Castelao's voice, two issues emerge. First, since the only surviving sound archive of him — and therefore the only authentic historical record available — was used to generate it, would it not have been more appropriate to include this archive unaltered and give it a more prominent role, rather than using it merely as a basis for constructing his voice in Galician?

Second, although the recreation of how his voice might have sounded in Galician represents an important advance and was carried out with the utmost rigour possible, certain problems persist: recreating his voice in Galician from a Spanish-language recording involves modifying aspects of the original speech, and using it to read fragments of his work or present his texts may generate a perception of unreality. Even with the use of artificial intelligence and professional voice actors, it is likely that the tone, pauses, and intonation do not accurately reflect the dialectal features that Castelao would have had in his real speech. Typical traits of spoken Galician, such as seseo or gheada, may have been present in his original voice, but this cannot be determined, since the only preserved recording is in Spanish.

Furthermore, the recreated voice resource has been used in some rooms, such as the Statute room, to give "life" to a scene from the past. It is controversial to generate a moving image of Castelao addressing the public in Galician when no such audiovisual document exists. While the speech and photographs of the event are preserved, is it really necessary to reinvent this part of history simply to produce a looped video because the exhibition employs digital resources?

Why not present the facts through the original media in which they were recorded and subsequently commission an artist to create a work that dialogues with those events? Giving movement to a photograph does not appear to go beyond demonstrating technical skill in the use of digital tools.

The problem lies in the fact that, in a deeply digitalised context such as the present one, even if the exhibition clearly states that the rally has been recreated, the misuse of that video — for example, through social media — could turn it into viral content that, over time, comes to be perceived as authentic in environments unaware of its recreated nature. In this way, there is a risk of contributing to the generation of potentially false documentation.

A similar issue occurs in the Wedding room. In this space, artificial intelligence was not used to recreate a scene in video from a photograph or to introduce the visitor into it through virtual reality devices. Nor was it applied to restore or improve the quality of the displayed image, such as correcting common damage in old analogue photographs (scratches, watermarks, wear, or development defects). Instead, AI was used specifically to give movement to the figures of Castelao and Virxinia.

The problem with this work is that the original image lacked quality, which resulted in the artificially generated image failing to faithfully reflect the features of the individuals, especially those of Virxinia Pereira, whose facial features do not closely resemble reality as seen in other preserved photographic archives. Far from adding to or reinforcing the character of the work, the use of digital technologies in this specific piece appears rather anecdotal and could even be considered unnecessary.

Returning to the earlier reflection on immersion, it is worth insisting that immersion does not necessarily equate to the deployment of cutting-edge digital technologies. The immersive experience can be constructed through multiple languages and strategies — spatial, narrative, sonic, or plastic — without depending exclusively on the artificial animation of historical documents. Creating an immersive exhibition on Castelao's life and work should not, in itself, imply recreating his work and life using AI, but rather the articulation of curatorial proposals that engage critically with his legacy. In this

sense, collaboration with contemporary artists or the incorporation of interventions clearly differentiated from the original document could have generated an equally enveloping experience without blurring the boundaries between historical record and digital recreation. While this differentiation is evident in some rooms, in others it generates a degree of controversy.

6. Discussion

The creation of an exhibition on one of the most important figures in Galician culture and heritage through digital art represents a key opportunity to investigate and evaluate the possibilities of generative artificial intelligence in cultural mediation and its impact on the contemporary spectator (Castellanos-Pineda et al., 2022). The emergence of new technologies and our ways of interacting in immersive spaces imply that the development of perception and visual illusion has a long history and will undoubtedly continue to evolve and generate synergies with other sciences and arts (Casales Navarrete, 2022; Jover Peris & Sempere Ripoll, 2024).

Although the exhibition *Castelao. Looking at Galicia* constitutes a pioneering milestone in the use of generative artificial intelligence and immersive technologies for cultural mediation; this innovation carries inherent ethical and museological challenges. The recreation of the author's voice and image, as well as the animation of historical documents, significantly expands access and the visitor's experience, but raises questions about historical fidelity and the boundaries between original work and digital recreation. In this sense, the exhibition represents a valuable case study for reflecting on how to balance technological innovation and patrimonial rigour in the contemporary museum.

Several studies have shown that the evolutionary transformation of museum experiences has made them more inclusive, didactic, interactive, and dynamic, in contrast to the more passive and unidirectional approach of the traditional museum (Gao, 2025; Gonzalez Liendo & Gómez Nieto, 2024). This paradigm shift reinforces the need for museums to adapt to the demands of an audience that increasingly seeks active experiences and a more participatory pedagogical approach.

In this context, the Castelao exhibition, whose aim is to disseminate his vital and artistic legacy while creating a close and direct experience of the author's work through digital technology and AI, offers the possibility of assessing in future research the emotional and sensory impact generated in the spectator. This approach can foster deeper public interaction, an important area of study in cultural mediation (Vega et al., 2026).

There is evidence that the function of the contemporary immersive museum must meet the needs of the spectator, from the perspective of which audiences we wish to reach and how to apply technological means to identify and conserve cultural heritage (Rodá & Soler Artiga, 2023). In this sense, a crucial reflection arises: we must question whether the content and museum language respond to meaningful learning and an enriching visitor experience without distorting the quality and critical reflection of the work.

From the planning and multisensory route offered by the exhibition *Castelao. Looking at Galicia*, we highlight the considerable effort made through the collaboration of various institutions, such as the Filmoteca de Galicia, the Consello da Cultura Galega/Arquivo Sonoro de Galicia, and the Biblioteca Nacional de España, together with private lenders, in compiling the works and key elements that allow the identification of the chronological line and facilitate a comprehensive understanding of the exhibition.

As the first pilot project of digital art at the Museo Gaiás, the exhibition reflects institutional collaboration with entities specialising in digitisation. It demonstrates considerable interpretative potential for understanding — without altering — Castelao's artistic and personal figure, while seeking to strengthen the mediation of cultural heritage towards society.

Rodá and Soler Artiga (2023) emphasise the importance of reinforcing museum values linked to the demands of the public or user as a global and integral part of a digitisation project: "(...) digital transformation has allowed us to become a more inclusive, social, open, transparent, collaborative, communicative and agile museum" (p. 71). Likewise, the exhibition route is structured in an innovative manner, progressively increasing interaction with the visitor and culminating in an immersive space that synthesises the presented contents, consolidates the knowledge acquired, and appeals to the emotional dimension through the symbolic representation of Castelao. This immersive project was developed as a pilot to establish the possibility of a Digital Museum at the Museo Gaiás.

Finally, it is crucial to consider that, although digital technologies and artificial intelligence offer numerous benefits in terms of enriching the museum experience, particularly regarding accessibility and inclusivity, their use requires great caution when applied to artistic works. The recreation of historical figures for subsequent projection in holograms or videos, among other formats, must be handled with extreme care, given the risk of distorting the authentic representation of the real person.

The Castelao case allows us to understand that artificial intelligence applied to heritage does not replace the original work, but it does redefine its modes of presence and perception, shifting the focus from materiality to experience

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