

Narrative Portals and Augmented Reality: Activating empathy in creative projects

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Abstract

In an era marked by the increasing fragmentation of human relationships – where mechanisms of social and emotional connection often struggle to adapt to the acceleration of communicational technologies and digital ecosystems – Digital Media Art assumes a role of critical and sensitive mediation. The experimental and research-driven exploration of ways to reconfigure modes of being-with-others through technology fosters intersections between creative practices and other means, such as digital narrative and augmented reality, particularly given their immersive and interactive potential oriented toward ethical, social, and cultural concerns. These practices propose frameworks for listening, sharing and symbolic co-presence, where empathy is not conceived as a passive emotion, but as a relational process. This article offers a theoretical reflection on such frameworks, focusing on narrative portals activated through augmented reality, and analyses four contemporary international art projects (2021-2025) - **Como Semillas en el Viento, Monumental Perspectives, Las Awichas and Augmented Landscapes of Empathy** – which integrate technology and storytelling to cultivate affective and community-based connections. Through comparative analysis, this article aims to understand how these creative projects are situated within the field of Digital Media Art and how they configure spaces of relation and collective memory.

Resumo

Numa época marcada pela crescente fragmentação das relações humanas, onde os mecanismos de conexão social e afetiva carecem de ajustes face à aceleração dos dispositivos comunicacionais e à aceleração dos ecossistemas digitais, a Média-arte Digital pode assumir um papel de mediação crítica e sensível. A proposta de experimentação e pesquisa de experiências que reconfigurem o(s) modo(s) de estar-com-o-outro através da tecnologia, potenciam o cruzamento de conjuntos de práticas artísticas, como a narrativa digital e a realidade aumentada, pelo potencial da imersão e da interatividade direcionados às preocupações éticas, sociais e culturais. Estas práticas propõem dispositivos de escuta, partilha e co-presença simbólica, nos quais a empatia pretende-se ativada

não como emoção passiva, mas como um processo relacional. Este artigo pretende uma reflexão teórica em torno desses dispositivos, designadamente os portais narrativos ativados por realidade aumentada, analisando quatro casos de projetos artísticos internacionais contemporâneos (2021-2025) – **Como Semillas en el Viento, Monumental Perspectives, Las Awichas e Augmented Landscapes of Empathy** - que articulam tecnologia e narrativa com propósito de conceber dinâmicas de ligação comunitário-afetiva. Através da análise comparativa dos quatro casos de estudo, o artigo pretende compreender de que modo estes projetos artísticos inscrevem no campo da Média-arte Digital e configuram espaços de relação e memória coletiva.

CCS Concepts

• **Applied computing**; • **Arts and humanities**; • **Media arts**; • **Human-centered computing**; • **Human computer interaction (HCI)**; • **Interaction design**; • **Information systems**; • **Multi-media information systems**; • **Interactive multimedia**;

Keywords

Digital Media Arts, Augmented Reality, Digital Narrative, Empathy, Community Engagement

ACM Reference Format:

Ana Raquel Gouveia, Isabel Cristina Carvalho, and Paulo Maldonado. 2025. Narrative Portals and Augmented Reality: Activating empathy in creative projects. In *12th International Conference on Digital and Interactive Arts: Media Art Cultures, Communities & Territories (ARTECH 2025)*, November 26–28, 2025, Braga, Portugal. ACM, New York, NY, USA, 8 pages. <https://doi.org/10.1145/3773699.3773961>

1 THEORETICAL AND CONCEPTUAL FOUNDATION

In a society marked by a fragile network of support and a crisis of connection, the World Health Organization (WHO) recognizes the need to reduce social isolation and loneliness as key priorities in global public health - Social Connection Commission 2024-2026 [1]. In this context, empathy emerges as a fundamental human capacity, often eclipsed by feelings of apathy and isolation [2, 3]. Empathy, conceptualized as the ability to perceive, understand, and, to some extent, share the emotional states of another person, goes beyond mere recognition or sympathy. According to Cacioppo & Decety [4], empathy emerges from our evolution as a social species rooted in neurobiological mechanisms and cultural and social structures. It involves not only feeling with others but also an active disposition to



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ARTECH 2025, Braga, Portugal

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ACM ISBN 979-8-4007-2001-7/2025/11

<https://doi.org/10.1145/3773699.3773961>

listen to, understand, and engage in reciprocal human relationships. Way et al. [3] reinforce this concept, emphasizing that empathy is an essential competence for social well-being and community cohesion, fostering networks of trust, solidarity, and mutual recognition. Recognizing its importance in relational and social processes, the current disparity is evident in the context of disconnection. The disconnection is exacerbated by the misuse of technology, reflected in declining levels of empathy and trust, contributing to social pathologies such as depression, anxiety, loneliness, and social isolation, and the loss of connection between individuals and their communities, stressed by growing social polarization and alienation [3, 5]. In this conjecture, the need to counteract this trend requires that efforts be focused on promoting human empathy and connection, recognizing the potential of the human species, and on a paradigm shift that integrates mind-body-thought-emotion-self relations. The adoption of obstinate disconnection processes alongside a sense of community, affective bonds, and curiosity about the ‘other’, arises with the potential aggregation of memory, to History and stories, allied to the feelings of missing someone and nostalgia that activates the pedagogical-ludic potential of the narrative [6] and of the incision in Culture, whose characteristics and capacities are simultaneously aggregating and sufficiently distinctive of society(ies). In this way, the dynamic field of Digital Media Art (DMA), characterized by its interdisciplinary and interactive nature, as well as its state of constant flow and transformation [7], proposes fostering cultural understanding and empathy through targeted technological applications. The reflection on how technology can foster the dynamics of empathy and interpersonal connection finds fertile ground at the intersection of art, digital media, and emerging narrative practices, with six theoretical-conceptual axes that support the analysis of the artistic projects to be addressed.

1.1 Digital Media Art as a hybrid and relational field

Digital Media Art functions as a hybrid and relational field, operating at the intersection of artistic practices, technological experimentation, and sensory engagement [7, 8]. It is not just a matter of incorporating digital media with artistic media, but also of establishing an aesthetic-technological regime that reconfigures the experience of fruition and participation. Thus, DMA is simultaneously an object and process, aesthetics and interaction, code and embodied experience, as discussed by Murray [9] in his integrated disciplinary perspective and Ronchi [10] in examples of interactive artworks that include motion or sound sensors to foster deep and personal connections with the viewer. Consequently, DMA has become fertile ground for proposals that seek to rethink the ways in which human relationships are mediated by technology. Its hybrid nature allows for the integration of various disciplines, fostering experiences that are visual, sensory, and emotional, in other words, potentially deeper in the connection between the audience and the artwork [11, 12]. This integration is key to designing interactive projects that respond to audience input, transforming passive consumption into active participation and co-creation.

1.2 Transmedia Narratives and Narrative Portals

The evolution of narrative languages in the digital context is marked by the multiplication of platforms and the fragmentation of discursive supports [13]. Transmedia Narratives (TN), as an expression of this evolution, distribute content across various media, inviting the audience to become co-authors of the narrative universe [13, 14]. In this process, mediation structures emerge that can be called Narrative Portals – sensitive entry points to fictional or documentary worlds that intersect the physical space with the digital and the tangible with the intangible [15]. These portals configure experiences of transition and crossing, where the narrative is updated through the activation of the body and presence, acting as digital entry points that overlay information and interactive content onto the physical environment by designing an interactive narrative experience [15]. This integration made possible by technology—particularly through the partnership between Augmented Reality (AR) and TN—enables the creation of narrative portals, transforming the way the connection between individual(s), stories, and emotional engagement takes place. Thus, portals are designed to help users navigate the environment and enhance the overall experience by combining deep immersion with locative spaces and memories, thereby preserving and exploring specific memories—the doorway effect [15:4]. This typology of portal is crucial for getting spaces that foster community connections and shared experiences, as the narrative unfolds through users’ interactions with the environment(s).

1.3 Augmented Reality as an affective and participatory technology

Augmented Reality (AR) has increasingly been recognized not only for its ability to expand what is visible but also for its capacity to overlay the sensory upon the symbolic, creating a new ground for aesthetic and emotional engagement [13, 16]. By superimposing digital layers onto the physical world, AR becomes a privileged medium for building experiences that operate in the “intermediate” space—blurring the boundaries between the “here” and the virtual, connecting individual perception with collective experience, and memory with imagination. In artistic contexts, AR transcends its technical function to unfold as an affective technology: it allows the audience to inscribe themselves subjectively into the narrative space, fostering a sense of presence and deep involvement [16]. AR portals, for instance, enable stories to be experienced in an interactive and immersive way, with opportunities for emotional resonance, empathy, and individual identification through embodied interactions with both digital and physical elements. These experiences not only enhance sensory and emotional engagement but also promote community participation and the construction of shared meaning, as AR invites the audience to co-create, remember, and reflect in hybrid environments [15, 16]. Ultimately, the symbiosis between AR and the arts empowers the audience from passive observer to active and affective participant through connections that resonate both individually and collectively [16].

1.4 Digital empathy and community connection

Empathy, understood not only as the capacity to feel with others [4] but also as an openness to listening and reciprocity, finds a unique

experimental field in digital art [13]. Interactive and immersive narratives, especially those enabled by technologies such as AR and locative media, serve as devices for symbolic and emotional re-connection [13:2]. These environments promote new forms of community connection, allowing individuals to share and experience stories collectively—even while physically distant—activating and strengthening community bonds through the sharing of affective experiences [17, 18]. Through AR, users are invited into shared hybrid spaces, where presence, memory, and imagination are interwoven to foster a sense of belonging to something greater than the user *per se* [14, 19]. DMA turns the audience/spectators into co-creators of the narrative, catalysing a form of digital empathy rooted in participation, the construction of shared meanings, and mutual recognition. In this way, “digital empathy” transcends geographic boundaries, helping to rebuild networks of belonging and recognition within and beyond communities [20, 21]. Ultimately, digital art and immersive technologies aim to be a critical response to the contemporary crises of disconnection and social isolation, providing new rituals of collective engagement, fostering emotional resonance, and facilitating the reconstruction of empathetic and supportive communities in the digital age [17].

1.5 Culture of convergence and participation

In contemporary culture, characterized by the convergence of intense media and participatory production logics, the public increasingly plays an active role in creating and circulating narratives. As Henry Jenkins [14] considers, the concept of participation extends beyond technical or instrumental intervention to encompass emotional and political dimensions. In this context, DMA exemplifies convergence culture by bringing together technology, creativity, and interactivity to foster environments of collaboration, co-creation, and emotional investment [14, 22]. DMA projects encourage the public not only to consume but also to contribute and become co-authors, expanding user involvement into a process of collective meaning-making and shared authorship [20]. This participatory ethos challenges traditional passivity, often associated with media consumption, providing new spaces for listening, visibility, and recognition of diverse voices [20]. Furthermore, the collaborative and multidisciplinary nature of digital convergence fosters innovation, inclusion, and the democratization of cultural expression, positioning DMA as both a resistance to media passivity and a dynamic platform for affective, political, and creative participation in the digital public sphere [14, 20].

1.6 Preserving memories and heritage through digital storytelling

Allied to narrative, technology plays a fundamental role in preserving individual and collective memories. Projects that use AR and digital narratives to represent tangible and intangible heritage foster the creation of affective and living archives that transcend the limitations of static documentation, as highlighted by Nguyen [23] and Economou [17]. Digital narratives allow memory to function as a relational event—an event that is continuously revisited in the present through sensitive devices and experiences that activate and re-enact past stories, exemplified by the WNEIS – With New Eyes I See project - which Kidd [24] praises as an example of this ability.

By overlaying historical and cultural layers onto contemporary spaces, AR enables the public to experience and participate in memory as an embodied presence. In Chapter 3 of Geroimenko [16], the authors, Klen Pucihar and Matjaž Kljun, propose a taxonomy of AR that categorizes it across art, education, entertainment, and cultural heritage. This proposal, which aims to expand the understanding of technology by adding layers of communication and personalization before, during, and after any user interaction with a work of art, heritage, and/or culture, justifies the use of AR for cultural applications with the specific purpose of preservation. By making stories, traditions, and local artefacts accessible in multisensory and interactive ways, these technologies ensure that cultural heritage is preserved, reinvented, and dynamically shared across generations [17]. This approach opens space for a multitude of voices, perspectives, and temporalities, metamorphosing cultural memory into a continuous, participatory process. Instead of treating memory as a closed archive, AR-based digital narratives invite communities to engage in processes of review, renewal, and co-authorship, enriching the cultural fabric by fostering a sense of shared identity and belonging.

2 METHODOLOGY

This article adopts a qualitative analytical approach, focusing on a comparative observation of four contemporary artistic projects that integrate augmented reality and narrative devices to foster community engagement and activate empathy. This is a non-empirical analysis guided by theoretical and conceptual criteria in line with the fields of Digital Media Art, interactive narratives, and participatory artistic practices. The projects were selected based on three main criterias:

1. Their inclusion within the recent time frame (2021-2025), in order to ensure the relevance of the practices analysed;
2. The conscious use of augmented reality as a central element of the artistic experience;
3. Explicit presence of objectives related to the promotion of empathy, active listening, or the visibility of community groups or stories.

The analysis was carried out through interpretation and examination based on five dimensions:

Artistic and/or conceptual intentionality. The way in which the project positions itself in relation to the audience and the aesthetic experience;

Technological devices and forms of mediation. Technical choices that support interaction with the public;

Narrative strategies. The structure of the narrative, its degree of linearity or fragmentation, and how it invites emotional involvement;

Participation and community engagement. The role attributed to participants or audiences in the creation, activation, or dissemination of the work;

Empathy activation potential. The project’s capacity to foster identification, listening, and recognition among individuals or groups.

The purpose of the analysis is not to establish value judgments or aesthetic hierarchies, but rather to understand how each work articulates technological language with a relational proposal, thereby

contributing to the consideration of AR narrative portals as both conceptual and operational instruments in the field of contemporary digital art.

3 CRITICAL ANALYSIS OF SELECTED PROJECTS

This section presents an interpretative analysis of four international artistic projects selected for their relevance at the intersection of augmented reality, digital narrative, and community engagement. Although distinct in their contexts of creation, they all share the intention of using technology as a tool for listening, memory, and connection. The analysis explores artistic intent, narrative and technological strategies, the degree of participation proposed, and the empathetic potential of the experiences created in the process.

3.1 Augmented Landscapes of Empathy (2024)

The Augmented Landscapes of Empathy project (access link), developed by Katerina Girginova, Bill Gaver, and John Bowers, proposes a set of AR interventions via research through design [24] created in collaboration with caregiver communities, African-heritage mothers, and residents of socially marginalized neighbourhoods in the urban area of Philadelphia, United States. Comprising three AR-based awareness campaigns (Fig. 1), each intervention took the form of an “empathic landscape,” made up of visual, textual, and audio elements that overlapped with urban space, challenging the neutrality of the landscape and making visible stories of struggle, care, and resistance from these communities within the traditional public space. Concrete actions included co-creating and disseminating, across different areas of East Philadelphia, posters and postcards with AR integration to test and compare responses from the target audience. Although their primary stated goal was to increase adherence to pediatric vaccination against Covid-19 and influenza, the process was grounded in participatory DMA and community co-creation strategies. From a narrative perspective, the project fragments and decentralizes the experience: there is no linear narrative, but rather multiple entry points, voices, and ways to engage with the content (the video accessed via AR through the QR code, the text included in the physical materials, among others).

Floating images, voice recordings, and short texts are distributed in space as fragments of testimonies and multiple iterations of the main message. In this case, the technology is not used to illustrate, but to reveal, to “augment” not the visible, but the absent. While there may be potential tension stemming from the instrumental application of empathy for persuasion, this is offset when the goal of behavioural change activates socially neglected voices and seeks to model emotional connection, inviting reflection at the intersection of digital art, activism, and social marketing. Thus, community participation is crucial: residents co-created the content of each AR installation, and members of the target community served as narrators. This co-authorship and embrace of local voices, experiences, and imagery reinforce the narratives’ authenticity, fostering empathy that is not constructed through fiction but through a genuine perception of reality. The project culminated in the distribution of AR posters and postcards throughout the city, amplifying the campaign’s resonance and perceived credibility. Another important aspect to highlight is the detail of hiring actors representative of



Figure 1: Postcard of the Second Influenza Campaign. Source: Girginova et al. (2024)

the target community for the videos and/or images. In this way, the project ensured that the content could be delivered in a relatable manner and was more easily accepted by the community. This article includes this project as a threshold case that expands definitions within the field, exemplifying both the potential of participatory technology to foster community connections and the ethical risks of empathy as a strategy for disseminating potentially persuasive messages. Although it originated in the context of promoting public health, it can be understood as a relational art project through its conscious adoption of co-creative practices, fragmented aesthetics and deep community participation. As endorsed by authors of socially engaged art, such as Nicolas Bourriaud in his work *Relational Aesthetics* [25] and Murray [9] in the context of interactive digital art, artistic work resides as much in the process and encounters as in the visible products. The use of AR to re-inscribe urban space, the use of multiple voices and sensory language, and openness to interpretation differentiate this project from traditional awareness campaigns. For this reason, its inclusion in the expanded field of contemporary art is well understood, serving as an example of the possible intersections between art, activism, and technology. Consequently, it is one of the four projects to be analysed.

3.2 Como Semillas en el Viento (2024)

Created by Alfredo Salazar-Caro (access link), *Como Semillas en el Viento* project [26] was commissioned by the Pérez Art Museum Miami (PAMM) and proposes an AR installation that intertwines 3D portraits of Latin American migrants with digitised Mesoamerican archaeological artefacts. These visual elements are complemented by a sound component featuring original poems inspired by the stories of those portrayed. This artwork constructs a poetic and political space in which AR serves as a symbolic gesture of reunion between the ancestral past and the migrant present (Fig. 2). The figures emerge on mobile devices as translucent, delicate, yet assertive presences, confronting visitors with faces and voices that often remain invisible in the public sphere. This juxtaposition of digital aesthetics and human testimony shapes the work’s poetics, depicting subjects sharing their stories and identities in a living artistic



Figure 2: Imagem de acesso ao projeto Como Semillas en el Viento. Fonte: ar.pamm.org

composition. Participation is indirect, as the creative process does not take place in real time. Yet it is nonetheless structural: those portrayed contributed their stories and faces, becoming part of the artwork's fabric. The empathetic potential lies in the juxtaposition between aesthetics and testimony and between digital art and the dignification of individual memory. The shared narratives grant authenticity and uniqueness to the installations. The empathetic potential of the experience arises from the encounter between individual and collective memories, promoting the dignity of the migrant experience and highlighting the power of emerging technologies to reinvent memory, recognition, and cultural belonging.

3.3 Monumental Perspectives (2021-2024)

Resulting from a partnership between LACMA (Los Angeles County Museum of Art) and Snapchat, the artistic project *Monumental Perspectives* [27] (access link) combines art and technology, using AR to explore stories and perspectives from Los Angeles communities (Fig. 3). The project brought together local artists, communities, and AR developers—Snap Lens Creators—to design digital AR monuments that reflect and challenge the traditional paradigm of public commemoration and memory, cultural diversity, and the history of Los Angeles's local communities. Unlike traditional monuments, which are static, physical, and often exclusionary, these interventions are ephemeral, accessible through geolocation, and centred on stories absent from the official landscape, such as unrepresented moments and/or figures from the past. Each artist chose a concept, figure, or symbol they considered significant for recovering or reinventing the city's collective memory and then built interactive experiences that appeared in urban spaces via mobile devices. The narrative is symbolic and minimalist, based on objects, movements, and digital atmospheres that evoke memories without explicit discourse. Community participation manifested itself in two ways:

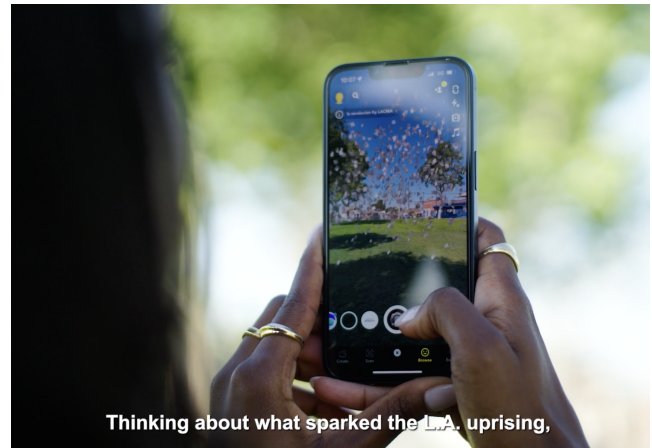


Figure 3: Video image LACMA x SNAPCHAT: Monumental Perspectives (Collection II). Source: lacma.org

first, in the theme of each work, that is, in the appreciation of narratives and presences usually absent from the official landscape; second, in the free and situational access to the works themselves, which appropriate urban space. In this sense, the project democratizes the memorial experience. It promotes symbolic justice by giving voice to silenced groups, thereby acknowledging and celebrating their existence and contributions to the city's cultural fabric. Empathy is therefore invoked in this recognition: by seeing themselves represented in a digital monument, historically silenced groups experience visibility as a form of symbolic justice. On the ethical and artistic levels, *Monumental Perspectives* highlights the importance of empathy as collective recognition rather than mere emotional identification, positioning technology in the service of representation, plurality, and critical revision of urban memory.

3.4 Las Awichas (2024-2025)

Authored by Violeta Ayala, Las Awichas [28] (access link), this installation merges AR, artificial intelligence, and Andean Indigenous culture. Presented at King's College London in May 2024, the artwork features robotic figures and interactive textiles symbolizing ancestral grandmothers—the "awichas"—reimagined as animated digital sculptures and immersive sounds (Fig. 4). This fusion of oral tradition and advanced technology constructs a participatory experience in which the narrative is built from archetypes and collective memories, in a dialogue between oral tradition and technological reconfiguration. Visitors interact with the figures using mobile devices, activating gestures, sounds, and visual elements that invoke ancestral feminine knowledge, intergenerational strength, and resistance. The underlying narrative is collective and symbolic, interweaving archetypes, memories and female resistance. It is a distinctly sensory experience, where empathy is envisioned in the recognition of a shared affective lineage— even among different cultures and across geographical barriers. More than merely transmitting memory, technology assumes a ritual function: memory is transformed into a digital performance, summoning the community for a celebration that exalts the strength, transmission of oral knowledge, and resilience of the culture. Critically, this artwork



Figure 4: Image from the Las Awichas project. Source: kcl.ac.uk

exemplifies how AR and AI can be mobilized not only to preserve or document heritage but also to reinvent it through immersive collective experiences with emotional and cultural impact.

4 COMPARATIVE DISCUSSION

The analysis of the four projects highlights the emergence of an artistic and technological lexicon that, by integrating AR, narrative devices, and community concerns, reconfigures the possibilities of digital art as a medium for connection, listening, and public participation. In this context, DMA emerges as a critical and sensitive response to the growing fragmentation of human relationships, positioning itself as a privileged space for experimenting with new ways of being-with-the-other mediated by technology, as previously stated in this article. Although the projects present varied languages, contexts, and institutional frameworks, the observed cases reveal a convergence around three main axes: (1) the creation of symbolic presence, (2) the inscription of memory as a collective act, and (3) the activation—and ethical problematization—of empathy through sensitive and participatory interactions. Regarding **symbolic presence**, the projects share a concern for making visible voices, bodies, and stories that are usually absent from public spaces or the dominant collective imagination. Through the creation of digital monuments via collaborative processes (Monumental Perspectives), the evocation of ancestral female figures as intergenerational legacy (Las Awichas), the visual and poetic reconstruction of Latin American migrants' journeys (Como Semillas en el Viento), and the spatialization of invisible community testimonies (Augmented Landscapes of Empathy), AR is mobilized as a dual instrument of inscription: it symbolically marks the urban landscape. It activates collective memories, rewriting the fabric of coexistence and belonging. In this way, the four projects function as AR narrative portals, not merely as technological access points, but as zones of contact where technology serves listening, memory, and the cohabitation of difference.

Regarding **memory as a collective practice**, there is a transversal effort to convert individual testimonies into living archives that are shared, ritualized, and celebrated in public spaces. Projects such as Como Semillas en el Viento and Las Awichas demonstrate an

intertwining of past and present, rooted in the reinvention and symbolic densification of cultural heritage. On the other hand, projects like Augmented Landscapes of Empathy reinforce the value of micro-narratives situated and the affective writing of territory, showing that collective memory is always a process of (re)construction, sparking new possibilities for community connection mediated by technology.

Empathy in these artworks is not limited to identification or passive feeling; it emerges as a true relational dynamic activated by immersive sensory interaction, participation, and dialogue. AR devices create liminal zones between the individual and the collective, the visible and the invisible, the private and the public, where users are invited to listen, share, and inhabit different narratives. However, it is important to highlight that in Augmented Landscapes of Empathy, empathy also takes on a strategic character—articulating ethics, activism, and persuasion—which introduces the challenge of the instrumentalization of emotions in technological mediation. In other projects, empathy is more explicitly directed towards the recognition of identity, dignification of silenced experiences, and restoration of symbolic justice.

Despite potential critical differences and emerging challenges, conceptual convergence does not overshadow fundamental differences in participation, action, and sustainability:

1. The **degree of community participation** varies: in Augmented Landscapes of Empathy, direct co-authorship and community listening are essential; in Como Semillas en el Viento, the focus is on representation and testimony (with less direct co-creation); in Monumental Perspectives, there is a hybrid model in which artists dialogue with communities, but appropriation is open; in Las Awichas, ancestral sharing is sensorially activated by the public, but with limited intervention at the conceptual stage;
2. **Technology function** reveals itself to be ambiguous: although it mediates access and experience, reliance on platforms (Snapchat, AR apps) and digital devices poses barriers of accessibility, literacy, and sustainability—the artworks may become ephemeral and their cultural legacy depends on volatile technological infrastructures;
3. Regarding the **frontier between art, activism, and persuasion**, projects such as Como Semillas en el Viento and Las Awichas position themselves unequivocally as digital art and the reinvention of heritage; Monumental Perspectives navigates between symbolic activism and expanded museology; whereas Augmented Landscapes of Empathy challenges boundaries, blending relational art, social intervention, and public campaigning, inviting critical reflection on the legitimacy and intentionality of these practices.

Despite technical, formal, and ethical-institutional differences, these experiences constitute sensitive alternatives to alienation and the crisis of social connection that drives the beginning of this article. They converge in a desire to reconfigure the public experience of space, memory, and collective belonging, functioning as “living laboratories” of cultural citizenship, listening, and relational ethics in the digital age—even though the activated community is sometimes transient, dispersed, or virtual. They question who has a voice, who can (re)construct narratives in urban space, and

how technology can serve new modes of community and listening, that is, constructing narrative portals. However, they make it clear that such practices require ongoing critical attention, especially considering the risks of affective instrumentalization, access fragility, and impact continuity. The analysed projects demonstrate that AR narrative portals are more than technological interactions; they are structures of symbolic and relational passage. Each artwork activates, in its own way, a zone of crossing, where the public participates in situated, affective, and shared narratives. This configuration of narrative portals is the thread that unites these diverse experiences toward a common purpose: reactivating empathy, memory, and belonging through digital art. By articulating participatory technologies, narrative devices, and ethical-social concerns, these artworks not only renew the field of DMA but also demonstrate the potential of art as critical mediation, a space for collective healing, and a proposal for reconnection during times of fragmentation. Nonetheless, they leave room for further exploration, reflection, and future debate: How can we ensure that communities have a real voice and influence in these processes? How can the impact be evaluated beyond the experiential moment? Above all, how can DMA create ethical and sustainable models of affective engagement and shared memory in the era of immersive technologies?

5 FINAL CONSIDERATIONS

In a scenario characterized by the fragmentation of human relationships and a crisis of connection, this article sought to demonstrate how Digital Media Art, by articulating narrative portals activated by augmented reality, digital storytelling, and participation, can operate as a critical and sensitive mediator, fostering new ways of being with others in the digital age. The projects analysed demonstrate that AR, integration into narrative devices, and collaborative processes have the potential to create spaces for symbolic inscription, living archives, and the reconfiguration of a sense of belonging and collective memory. These projects serve as laboratory experiences in cultural citizenship, proposing alternatives to listening, recognition, and empathy, where the public is an active participant and a potential co-creator. However, the analysis also reveals risks and challenges: dependence on ephemeral technological platforms and infrastructures, the possibility of instrumentalising empathy for persuasion or mere superficial engagement, and the ongoing need to ensure accessibility, genuine community action, and the sustainability of practices in the field. Therefore, it is a priority to deepen critical and ethical assessment methodologies for these experiences, investing in metrics of engagement, community appropriation, and lasting impact. The field of Digital Media Art must continue to develop devices that are increasingly participatory, inclusive, and sensitive, and capable of balancing formal innovation, social commitment, and ethical responsibility. The future of these practices lies, above all, in their capacity to function as platforms for reconnection between memory and the future, the individual and the community, and the sensorial and the collective. By moving from mere technological innovation to the effective fostering of relationships, memory, and ethics, Digital Media Art can establish itself as a fundamental contributor to more empathetic, inclusive, and healthy digital societies. Within this dynamic, augmented reality (AR) is included as an aesthetic and relational technology in the

construction of artistic experiences that aim for sensory immersion but, above all, the activation of affective and community bonds—a means of amplifying what often remains hidden in hegemonic narrative systems.

Acknowledgements

This work was financed by Portuguese national funds through FCT – Fundação para a Ciência e a Tecnologia, I.P., in the framework of project UID/04019/2025

References

- [1] WHO Commission on Social Connection: <https://www.who.int/groups/commission-on-social-connection>. Accessed: 2025-06-26.
- [2] Ana Gouveia. 2022. História e Estórias: Design de Experiências Empáticas. Universidade de Évora, Évora. Retrieved from <http://hdl.handle.net/10174/31370>
- [3] Niobe Way, Alisha Ali, Carol Gilligan, and Pedro Noguera. 2018. *The Crisis of Connection* (1st ed.). NYU Press, New York.
- [4] John Cacioppo and Jean Decety. 2011. An Introduction to Social Neuroscience. In *The Oxford Handbook of Social Neuroscience*. Oxford University Press, Oxford, UK, 3–8.
- [5] Karam Adibifar. 2016. Technology and Alienation in Modern-Day Societies. *International Journal of Social Science Studies* 4, 9 (August 2016), 61–68. <https://doi.org/10.11114/ijsss.v4i9.1797>
- [6] Donald Norman. 2004. *Emotional Design: why we love (or hate) everyday things*. Basic Books, New York.
- [7] Pedro Alves da Veiga, José Bidarra, and António Araujo. 2023. *Média-Arte Digital – Ampliando Conceitos*. ROTURA – Revista de Comunicação, Cultura e Artes, 3(1), 8–11. <https://doi.org/10.34623/c9rh-c987>
- [8] Lev Manovich. 2001. *The Language of New Media* (1st ed.). The MIT Press, Cambridge, Mass.
- [9] Janet H. Murray. 2017. *Hamlet on the Holodeck, updated edition: The Future of Narrative in Cyberspace* (Updated ed. edition ed.). The MIT Press, Cambridge, Massachusetts.
- [10] Alfredo M. Ronchi. 2023. Reversing Cyber Loneliness. In *2023 IST-Africa Conference (IST-Africa)*, May 2023. 1–11. <https://doi.org/10.23919/IST-Africa60249.2023.10187789>
- [11] Nicola Dusi, Ilaria Ferretti, and Marco Furini. 2017. A transmedia storytelling system to transform recorded film memories into visual history. *Entertainment Computing* 21, (June 2017), 65–75. <https://doi.org/10.1016/j.entcom.2017.05.002>
- [12] Nathan Silver and Michael Slater. 2019. A safe space for self-expansion: Attachment and motivation to engage and interact with the story world. *Journal of Social and Personal Relationships* 36, (February 2019), 026540751982634. <https://doi.org/10.1177/0265407519826345>
- [13] Kevin Moloney. 2022. *Transmedia Change: Pedagogy and Practice for Socially-Concerned Transmedia Stories* (1st ed.). Routledge, London. <https://doi.org/10.4324/9781003150862>
- [14] Henry Jenkins. 2006. *Convergence culture: where old and new media collide*. New York University Press, New York.
- [15] Ralph Moseley. 2019. T The Space Between Worlds: Liminality, Multidimensional Virtual Reality and Deep Immersion. In: Arai, K., Bhatia, R., Kapoor, S. (eds) *Intelligent Computing. CompCom 2019. Advances in Intelligent Systems and Computing*, vol 997. Springer, Cham. https://doi.org/10.1007/978-3-030-22871-2_37
- [16] Vladimir Geroimenko (Ed.). 2018. *Augmented Reality Art: From an Emerging Technology to a Novel Creative Medium* (2nd ed.). Springer International Publishing, Cairo. <https://doi.org/10.1007/978-3-319-69932-5>
- [17] Maria Economou. 2015. Heritage in the digital age. In *A Companion to Heritage Studies*. 215–228. <https://doi.org/10.1002/9781118486634.ch15>
- [18] Dimitra Petousi, Akrivi Katifori, Katerina Servi, Maria Roussou, and Yannis Ioannidis. 2022. History education done different: A collaborative interactive digital storytelling approach for remote learners. *Front. Educ.* 7, (August 2022), 942834. <https://doi.org/10.3389/educ.2022.942834>
- [19] Pierre Levy. 1999. *Collective Intelligence: Mankind's Emerging World in Cyberspace*. Cambridge, Mass.
- [20] Birgit Eriksson, Carsten Stage, and Bjarki Valtysson (Eds.). 2019. *Cultures of Participation: Arts, Digital Media and Cultural Institutions*. Routledge, London. <https://doi.org/10.4324/9780429266454>
- [21] Olivia Sagan and Eric D. Miller. 2018. *Narratives of Loneliness: multidisciplinary perspectives from the 21st century / edited by Olivia Sagan and Eric D. Miller*. Routledge, Taylor & Francis Group, London.
- [22] Iryna Kuksa and Mark Childs. 2014. *Making Sense of Space: The Design and Experience of Virtual Spaces as a Tool for Communication*. Chandos Publishing, Oxford; New York.

- [23] Thi H. Nguyen. 2020. Community-Centered Design in A Hybrid Culture: Designing for Human Connection and Community Building by Utilizing Local Assets, Shared Resources and Co-Benefits. (December 2020). Retrieved April 10, 2024 from <https://hdl.handle.net/10877/13021>
- [24] Katerina Girginova, Jeffrey Vadala, Andy Tan, Kate Okker-Edging, Kyle Cassidy, Terri Lipman, and Melanie Kormides. 2024. Augmented Landscapes of Empathy: Community Voices in Augmented Reality Campaigns. *MaC 12*, (October 2024) 8581. <https://doi.org/10.17645/mac.8581>
- [25] Nicolas Bourriaud. 2002. Relational aesthetics. Dijon: Les Presses du réel. Retrieved from <https://catalog.princeton.edu/catalog/9949499293506421>
- [26] Alfredo Salazar-Caro, *Como Semillas en el Viento*, 2024. Alfredo Salazar-Caro, *Como Semillas en el Viento*, 2024. Retrieved June 20, 2025 <https://ar.pamm.org/>
- [27] 2022. LACMA xSnapchat: Monumental Perspectives | LACMA. Retrieved June 20, 2025 from <https://www.lacma.org/art/exhibition/lacma-snapchat-monumental-perspectives>
- [28] King's College London. *Las Awichas*, 2024 ©Violeta Ayala. King's College London. Retrieved June 20, 2025 from <https://www.kcl.ac.uk/research/las-awichas-2024-c-violeta-ayala>