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# Objects, memory, and power: the transformation of intimacy in virtual heritage spaces

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**ABSTRACT**

Virtual museums often prioritise access and digitisation over emotional engagement, frequently overlooking the nuanced, affective connections that physical heritage spaces can evoke. This has been influenced by culture and digital platform power, in addition to the cognitive bias of this moment. This article addresses that gap by introducing the concept of digital intimacy, defined as the emotional resonance that emerges when digital environments are designed to preserve personal memory, attachment, and embodied subjectivity. Through a hybrid methodology combining autoethnography, critical inquiry, and digital spatial analysis, the study explores how virtual representations of domestic objects and spaces can replicate, translate, or disrupt intimate experience. Drawing on comparative data from a personal domestic environment and The Glasgow Tenement House Museum, the research examines how physical and virtual museum spaces can be combined to create affective meaning. It argues that digital intimacy is not merely a technical effect but a curatorial and ethical imperative – central to rethinking how memory, care, and lived experience are communicated in virtual heritage spaces.

## 1. Introduction

When objects move from domestic spaces into museums, they become witnesses of history and culture, serving to interpret and explain the past (Hodge and Beranek 2011). Yet, at the outset of this process, they also lose their unique sense of belonging to individuals. As objects are transformed into collections, exhibits, and ultimately heritage, the authority to interpret their cultural meanings shifts to museums and cultural institutions. As Smith (2006) incisively notes, the *Authorised Heritage Discourse* (AHD) privileges object-based, expert-led, and state-sanctioned narratives. This reveals a form of separation in museum practice: artefacts displayed behind glass are isolated from the outside world, becoming frozen histories and fixed symbols. Since the twentieth century, scholars of

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museology have increasingly recognised this loss of emotional connection, and museums have sought to reshape themselves through affective and relational engagement. Shelton (2013), in a manifesto-like call, urges a rethinking of *critical museology*, reminding us not to view museums as static institutions but as complex arenas entangled with power, identity, and knowledge. Barrett (2011) similarly situates the museum within the framework of the *public sphere*, emphasising its political and social dimensions, while Message (2018) defines the museum as a *rebel*, constantly negotiating between compliance and resistance. Rather than dissolving individual experience within grand narratives, these studies seek to reconfigure the museum's role and function, enabling the expression of personal emotion and memory within existing institutional structures.

Although museums have increasingly embraced rebellion and a commitment to equality and justice in interpretation, the sense of belonging between people and objects remains fundamental to their relationship. As Stewart (1993, xi) defines one aspect of *longing* as 'belongings or appurtenances', she argues that what profoundly shapes the viewer's relationship with objects is a focus upon 'the place of that other in the formation of the notion of the interior'. This inherently involves a negotiation of possession and the right to define meaning. The disappearance of such rights also weakens intimacy. Nostalgia without ownership is a story without defence – only unclaimed emotions are revisited in the act of narration. Stewart further notes that 'with the creation of fictive worlds that are removed in time and space from the context of situation, an increasing distance is placed between producer and consumer' (Stewart 1993, 7). In discussions surrounding virtual museums and digital heritage as new mediating forms, this distance becomes even more pronounced, rendering nostalgia itself increasingly elusive.

Although museums have long stood as the custodians of memory (Williams and Marstine, 2011), in the dispersed and affectively flattened terrain of digital space their interpretive authority often weakens, giving way to ambiguity, distraction, and constraints of algorithmic framing (Cameron and Kenderdine 2007; Parry 2007). Virtual museums promise accessibility, yet too often, they fail to embrace, the warmth of lived experience is reduced to physical displays, the presence of history flattened into pixels (Hetherington 2006; Murphy and Schlaerth 2015). Without a sense of belonging or dwelling, without the resonance of place, digital heritage struggles to truly hold the weight of intimacy (Pękowska 2022; Stephen 2003). Building on this understanding, the present study examines how digital heritage performs and transforms intimacy. Grounded in research on materiality and memory, it critically explores how intimacy introduces marginalised and niche perspectives into heritage preservation and display, while simultaneously confronting shifts and challenges in interpretive authority.

Following on from this, the study raises three research questions:

(1) What is intimacy, and how is it generated, manifested, and made meaningful within physical space?
(2) In what ways can digital environments replicate the intimacy and subjectivity typically associated with domestic collections?
(3) How can the agency and interpretive authority of digital intimacy be strategically situated and understood within digital heritage, and what challenges might this entail?

## 2. Intimacy in virtual museum platforms

The word *intimacy* first appeared in English in the late fifteenth century. The concept includes all forms of relationships, such as those involving sex, friendship, and parenting (Cancian and Jamieson 1998), evolving from traditional family structures to more diverse and fluid arrangements (Duncan and Dowsett 2010). Over time, definitions of intimacy have resisted fixation or stability, as intimacy itself is accompanied by a high degree of subjectivity and characterised by both secrecy and ambivalence in its engagement with the external world. Thus, any exploration of intimacy must begin with an acknowledgement of the individual's deeply subjective modes of expression, which give modern intimacy its particular and precious quality. Giddens (1991, 3) importantly notes that 'intimacy implies a wholesale democratising of the interpersonal domain, in a manner fully compatible with democracy in the public sphere'. It bridges the gap between the personal and the collective, positioning intimacy as a key mechanism within the idea of *digital democracy*. At the same time, it highlights the dual nature of intimacy as a research subject: internally, it concerns subjectivity, interpretation, and the right of expression; externally, it raises questions about how private emotions and data are applied and negotiated within the public domain.

In psychology, intimacy as a description of a relationship is defined by physical proximity and seven key characteristics identified (Figure 1) in relationship research: knowledge, interdependence, care, trust, responsiveness, mutuality, and commitment (R. S. Miller 2015). Within the framework of digital domestic museum design, this study reinterprets these seven characteristics based on its own definition of intimacy, distinguishing between the inwardly reflective and the outwardly expressive aspects. *Care*, *trust*, and *commitment* can be understood as subjective responses towards objects, reflecting curiosity about the past, confidence in the present and the external world, and an integrative understanding that unites self and object through a shared sense of purpose. In digital contexts, this aligns with Kohlenberg, Kohlenberg, and Tsai (2009, 131) definition of intimacy as 'an interpersonal repertoire that involves the disclosure of one's innermost thoughts or feelings'.

Building on this research and definition of intimacy, this study moves beyond conventional understandings centred on relationships or sexuality. Instead, it approaches intimacy within the specific context of the object or the *Other* as integral to the formation of interior subjectivity, highlighting the profound and complex interplay between objects and inner expression as manifested in the virtual museum. Here, intimacy is understood as an affect deeply rooted in self-awareness, shaped through trust, the gradual development of care, and the fluid circulation of agency and power. While many frameworks focus on mutual understanding and shared emotional experience, what I find most compelling is, following on from Miller's intimacy framework, to then give more attention to the more subjective – even one-sided – dimension of intimacy: how individuals emotionally invest in someone or something they feel close to, regardless of reciprocity.

This also points towards personal self-awareness and inner growth. This related to Jacques Lacan's theory of *subjectivity* (Lacan and Fink 2006, first published in 1977), in which the self is continuously shaped through misrecognition. If a mirror reflects our external appearance, then intimacy, I argue, is what reflects our internal emotional
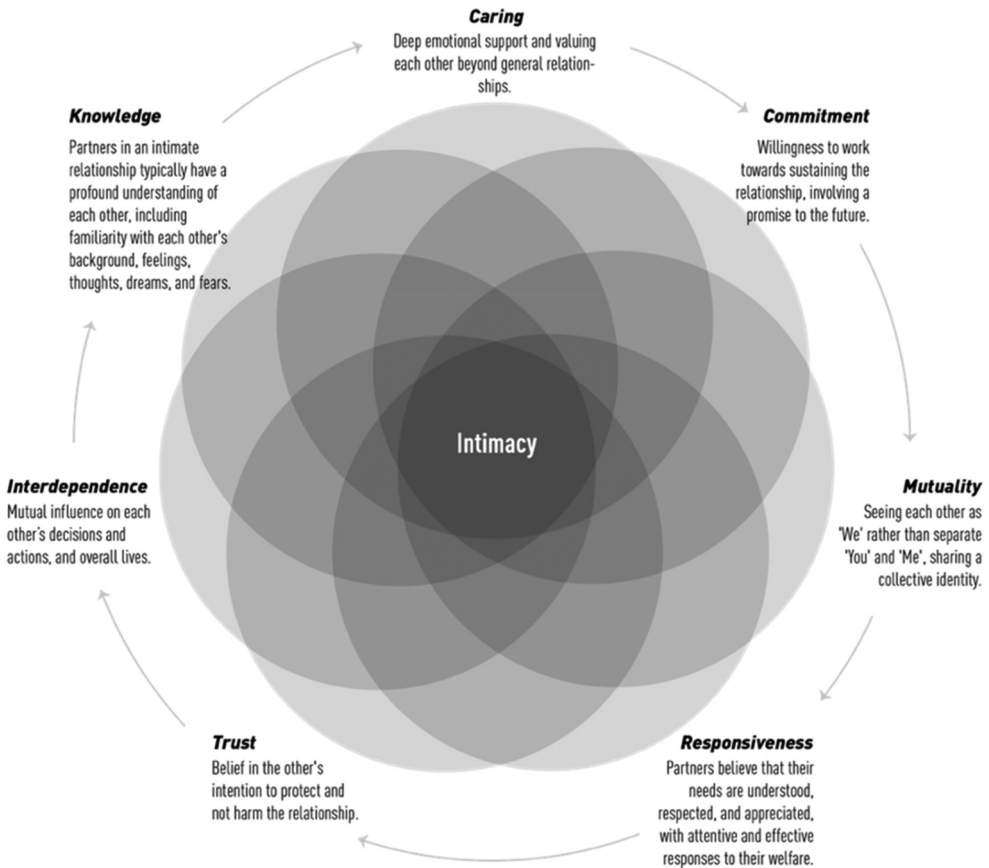
**Figure 1.** Visualization on intimacy attributes based on Miller's model.

reality – shaped and revealed through every encounter and affective interaction with the world.

Intimate inner movement is abundant. Intimate flow refers to the dynamic and often subtle exchange of emotions, thoughts, and actions that define close relationships. It encompasses the invisible threads of emotion, care, and mutual influence between individual and object, which can manifest in shared spaces, objects, or interactions. Liberati (2024, 1), drawing from post-phenomenology, points out that intimacy is 'the material presence of viscosity and other slimy bodily fluids' within interactions with digital technologies, questioning the boundaries among subjects, technologies, and objects from a phenomenological and post-phenomenological framework, and introducing sexual connotations. However, while describing intimacy using viscosity and fluids captures its invisible and elusive qualities, this interpretation overlooks the lightness of thought and the ethereal, non-visible nature of intimacy when it occurs, its delicacy lies not in materiality but in perception and sensation.

These flows are often unseen, operating beneath the surface of everyday life, and can even be secretive or deceptive, as Prager et al. (2013) suggest. However, intimacy arises from a subject with a stable core, and this matches Erikson's (1994, first published in

1959) theory of *life cycle* of development in which, during young adulthood intimacy is triggered by love, and grows and is accomplished with self-recognition. That is, love teaches people how to know each other and the self. This means that, when people begin to engage with the world and relate to others through a sense of care, they start to reflect on themselves. At the same time, the capacity for emotional isolation becomes a necessary force that cycles back into external care – only those with internal stability have the courage to step into the unknown and enter the inner worlds of others with genuine observation (Benjamin 1983; Winnicott 2018). At the same time, intimacy is deeply political, as Oswin and Olund (2010) argue, because it intersects with broader social, cultural, and spatial structures, shaping and being shaped by power dynamics, gender roles, and societal norms. However, intimacy is inherently challenging to observe and measure; it exists as a form of subjective cognition underlying surface actions. It represents a comprehensive sense of independence and self-awareness, one that arises from subtle, often fleeting sensations, yet remains inextricably connected to the wider world and its expansive contexts (Giddens 1992).

Poetically, intimacy often escapes the control of the subject, shaped as much by external conditions as by inner sensibility. It is like the fine, almost imperceptible dust resting upon a cupboard, visible only to an attentive gaze and a caring engagement with space. Such attentiveness forges a connection between the exterior and the interior, transforming the personal and the domestic into a site capable of holding, and reflecting, the vastness of the universe (McCormack 2024). So, when bringing intimacy back to museology, we could find that museums are not merely spaces for the passive preservation of history, they are vessels of human memory, intimate landscapes where the past and present whisper to one another. All inquiries into the universe ultimately lead back to explorations of our own existence. While contemporary museums increasingly strive for omnipotence, weaving metanarratives to connect vast and overwhelming content with diverse audiences, I hope to use digital and virtual theory and method to emphasise the concept of intimacy, through the house and home which offers a more intricate, sensitive, and deeply personal lens through which to reconsider virtual museum theory.

Oswin and Olund (2010) elaborate on this concept in their paper *Governing Intimacy*, stating:

> Yet if intimacy has neither fixed geographies nor identities in this literature, it still has its object, a sense of self in close connection to others 'other selves or other things' that inhabits that elusive space somewhere between a purely solipsistic 'me' and a wholly subsuming 'us'. (Oswin and Olund 2010, 60)

Intimacy can be understood as a process of subjectification of the object. This concept emerges in philosophical works, such as Descartes' *Meditations on First Philosophy* (Descartes 2013, first published in 1641). While Descartes does not directly address intimacy, his scepticism and exploration of self-awareness reveal a philosophical dimension of intimacy. This intimacy is reflected in Descartes' profound reflection and exploration of his inner world, constituting a form of intimate contact and understanding with the essence of the self.

Through Descartes' theory, intimacy can be interpreted in terms of self-topology, as a worldview that emerges through self-discovery and the subjectification of one's environment. Within the context of the virtual museum, digital records and creative acts can

be understood as mappings of an inner topography, transforming the museum from a passive container of memory into a dynamic site of continuous self-exploration and subject formation. The recording and tracking capacities of digital technologies further reinforce this process, producing behavioural fragments that serve as valuable material for objective self-observation. When the seven key aspects of intimacy are transposed into this digital terrain, and those elements dependent on corporeal or co-present others are removed, *trust* and *care* emerge as particularly vital. These qualities form the connective tissue of digital intimacy; they serve as anchors of emotional resonance, allowing affective experiences to unfold across disembodied platforms and data-driven environments. As Smith (2006, 3) argues, 'the real sense of heritage, the real moment of heritage, when our emotions and sense of self are truly engaged, occurs in the way we use, reshape, and recreate those memories and knowledge to help us understand not only who we "are", but also who we want to be'. This resists the exercise of interpretive authority that treats heritage as a monument or a fixed measure of cultural value, instead emphasising its negotiated and fluid nature.

## 3. Methodology

To explore how the transformation of intimacy in virtual heritage spaces occurs, this research adopts a hybrid qualitative methodology that combines autoethnography with critical inquiry to examine how intimacy is experienced, mediated, and reconfigured within both physical and virtual museum environments. Rooted in affect theory and material culture studies, this approach foregrounds lived emotional experience and interrogates the systems that shape the representation of domestic collections in both private and institutional contexts. By situating myself within the research as both subject and analyst, this study draws on self-reflexive methods that allow for the emergence of embodied, situated knowledge (Ellis, Adams, and Bochner 2011).

The first phase of the research spanned two months (March to May 2024), during which I conducted an extended period of autoethnographic documentation of my own domestic space, a tenement flat in Glasgow. This autoethnography sought to examine how memory transformation works in a domestic setting, the power flows in different mediations, and how intimacy materialises within everyday life and how it might be captured, reflected, and reimagined through digital tools. Five primary forms of data gathering were used: diary writing, still and panoramic photography, video recordings from fixed positions in domestic rooms, 3D spatial scans, and immersive re-engagement via VR headset. These modes were selected to reflect multiple temporal and sensory dimensions of memory, affect, and space. Diary entries recorded emotional responses retrospectively, especially after moments of care or interaction; photographs focused on visual intimacy and environmental cues; video captured social behaviours and domestic rhythms; 3D scans enabled spatial and structural mapping of emotional experience; and VR interactions allowed me to revisit and annotate spatial memories.

The second phase (January 2024–January 2025) was a case study at The Glasgow Tenement House Museum (TGTHM). Fieldwork included 3D scanning, interviews with staff and volunteers, archival research, and repeated on-site observations, analysed through digital decolonial imperatives, AHD (Smith 2006), and critical heritage theory (Waterton and Watson 2015). Interviews were particularly revealing, showing how

volunteers acted as informal custodians of emotional memory, generating a form of public intimacy beyond formal interpretation.

Data from both phases were brought into dialogue through a process of critical inquiry (Bourdieu 1973; Loder 2021), which allowed for reflexive interpretation of how intimacy is mediated across personal, institutional, and digital domains. Triangulation was achieved by comparing three interrelated strands: (1) personal autoethnographic recordings; (2) museum-based observations and interviews; and (3) spatial and visual outputs in digital form (e.g. 3D scans, VR models). Patterns were analysed thematically through the lenses of affective atmosphere, embodied memory, and spatial configuration. The use of digital tools, rather than simply documenting experience, became a method for interrogating how presence, care, and memory can be digitally represented or disrupted. This analytical process was informed by phenomenological understandings of space and dwelling (Casey 2005; Pink 2021) and material culture theory's emphasis on objects as vessels of social meaning (Dudley 2010; D. Miller 2010; Moran 2014).

Ethical sensitivity was maintained throughout. The use of my own domestic life as research material demanded careful reflexive monitoring of emotional boundaries, private-exposure, and the ethics of publicising intimate space. This aligns with emerging best practice in autoethnographic scholarship (Adams, Holman Jones, and Ellis 2015), where researcher vulnerability is not only acknowledged but recognised as a form of epistemological strength.

Ultimately, this methodological framework enables a close reading of digital intimacy as a spatial, emotional, and narrative phenomenon, discovering the influence and alteration of right in the process. By working across the personal and the institutional, the physical and the virtual, the study demonstrates how intimacy may be strategically cultivated and ethically considered within emerging forms of digital heritage, answering the research questions through practice-based, reflexive engagement.

## 4. Authenticity in digital intimacy

Research into digital intimacy has largely emerged from media and communication studies, emphasising infrastructures, platforms, and networks (Lupton 2015; Van Dijck 2013) while often neglecting the sensory and affective cues that underpin human connections. Virtual museums expand access but seldom evoke the affective presence of lived space (Choi and Kim 2017; Perry et al. 2017). Thus, in studying digital exhibits within virtual space, this research aims to foreground the intimate qualities inherent in the digital itself, while also encouraging critical discussion of how media and platforms shape and influence issues of power and agency within digital intimacy. By weaving *trust* and *care*, and by establishing a commitment oriented towards the future, this study integrates the emotional threads that sustain intimacy into the realm of digital collection and exhibition, seeking to move beyond virtual representation towards a more authentic and affective digital presence.

Michel de Certeau and Steven Rendall (Michel de, Steven, and Rendall 1984, 185) say that in the digital age, everyone is fighting for a hold on reality. 'The combatants no longer bear the arms of any offensive or defensive idea. They move forward camouflaged as facts, data, and events. They present themselves as messengers from a "reality"'. In virtual spaces, this reality must be mutual. Due to the intangible nature of virtual

materials, providing a strong sense of reality is challenging. As Baym (2010, 65–66) asks, 'when people's bodies aren't visible, will they lie about who they are? Can they be known? Can they be trusted?'

Intimacy is not merely an act of recognition but a state of becoming, in which two entities merge into one and the boundaries between self and other begin to dissolve. It is the space where trust lingers, where the unspoken is understood, and where the presence of another fills the silence between moments. This fluidity and deeply felt connection is precisely what virtual museums so often lack. In the context of the house museum, when stripped of the warmth of lived space, they risk becoming hollow archives rather than intimate landscapes where history breathes. Thus, I propose that in designing virtual house museums, digital intimacy should be defined as:

> a sensory state arising from the everyday desire to preserve emotional connections. It is formed through acts of collecting and recording in daily life, and it takes shape in digital spaces as curated traces of memory, attachment, and personal meaning.

Through this lens, digital heritage must focus less on artefacts alone and more on individual expectation, consciousness, and memory. By embracing personal feeling, digital museums can become alive with presence, belonging, and the subtle poetry of the human past.

## 5.  Reassembling authority in intimate data

Before the digital age, sociological discussions about the relationship between people and objects often centred on the transition from private to public (Arendt and Canovan 1998; Bourdieu 1973; Durkheim and Fields 1995; Kopytoff 1986; Veblen 2017; Marx 1867; Mauss 2002; D. Miller 2010, first published in 1899). During this period, much of the debate focused on how private property was redistributed among the wealthy during times of social transformation. At the same time, although the boundaries between the public and private spheres were beginning to blur, museums, while granting broader access to cultural heritage, did not fully democratise cultural wealth. As a result, the question of ownership remained central to the study of material culture, continuing to shape both its historical development and interpretation.

In digital media, the definition of ownership is redistributed across multiple layers that require systematic consideration. These include distinctions between the original and its digital reproduction, between digital platforms and the digitised applications of objects. Such layers divide the terrain among owners, creators, technologies or capital, and users, producing shifting zones of authority as they intersect and overlap (Figure 2). Although digitisation has created greater opportunities for marginalised cultural information to be recorded and preserved, it also introduces new complexities. As Risam (2019, 47) argues in *New Digital Worlds*, 'among postcolonial approaches to digital humanities, there are significant opportunities to develop digital archives that remediate colonial violence, write back to colonial histories, and fill gaps in knowledge that remain a legacy of colonialism'. She further contends that 'humanities scholars can intervene in the channels of capital, knowledge, and power in which the academy is implicated. After all, we have the power of world-making on our side' (Risam 2019, 144). Yet we must remain cautious of how, within digital media, both ownership and interpretive authority can
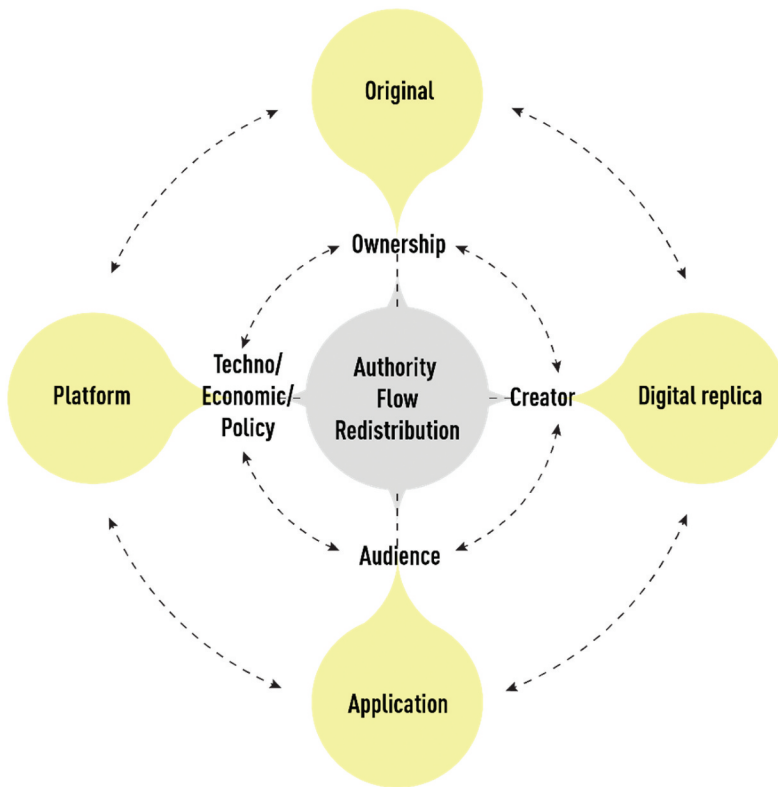
**Figure 2.** Authority redistribution ecosystem in digital environments.

once again become redistributed and fragmented. The involvement of different actors and organisations creates new tensions of power through structural interconnections. In the digital age, where data and information function as assets, these dynamics of control and authorship demand sustained and critical examination.

The concept of *digital capitalism* was first introduced by Dan Schiller (1999), emphasising how the internet, through its global communication infrastructure, became intertwined with neoliberal economic structures and subtly came to dominate the distribution of resources within the education area. As an extension of this theory, *platform capitalism* has been used to describe the dominance of digital systems that convert user data into economic value (Barns 2020; Srnicek 2017). The visibility of platform content determines its economic worth as a commodity: the more interaction it generates, the more it is promoted. Consequently, attention-grabbing or controversial content often receives higher visibility than accurate information. Research shows that misleading content spreads faster and more widely than factually correct information on digital platforms, largely because falsehoods tend to be more surprising and emotionally charged. Algorithms amplify this by prioritising content with higher engagement metrics, giving it greater exposure (Vosoughi, Roy, and Aral 2018). From these theories, it becomes clear that the power to control information is distributed among those who produce, own, and use it. In my methodology, I deliberately avoid relying on social media as a primary

dimension for exploring virtual museums. While media-based reinterpretations of heritage can indeed stimulate public engagement, topic generation driven by differing agendas often distorts the authenticity of information on digital platforms. On these platforms, it is no longer merely, as Bourdieu observed, that 'the inheritance of cultural wealth, which has been accumulated and bequeathed by previous generations, only really belongs (although it is theoretically offered to everyone) to those endowed with the means of appropriating it for themselves' (Bourdieu 1973, 73). When intimacy is digitised and transformed into data that can be collected and manipulated, individual authority risks being eroded. The objects of memory are likely to lose their original meanings through digital transformation and circulation, becoming fragmented and reassembled as instruments for capturing attention. Through the method of autoethnography, this study seeks to explore how, once intimacy becomes data, its authenticity can be defined and negotiated during processes of translation and transfer.

However, the multi-temporal slices generated through digital recording allow the truth of authenticity to be both seen and understood. Authenticity is therefore not confined to the final presentation of a domestic or personal museum; rather, the process itself can be viewed as an intimate journey. When museum collections once again become deeply intertwined with individual experience, the act and method of recording reveal a process and trajectory that bridge the personal and the collective, preserving each moment of understanding and reflection while tracing the subtle transformations of the self through repetition. At the same time, this offers a potential challenge for both the object and the viewer, breaking through the limitations of fixed versions and interpretations of collections, and highlighting the fluid, negotiated, and continually evolving nature of intangible heritage as it moves between society and the individual.

## 6. Domestic space as intimate archive

The concept of *home* is inherently abstract. Beyond being a place of residence, it can represent a dwelling for cherished memories or a longed-for space of security, peace and tranquillity. The act of tracing one's search for such a space becomes a vital thread of self-exploration, revealing how individuals construct meaning, belonging, and emotional continuity through their pursuit of home.

Building on the methodological framework discussed earlier, the researcher continued to document their domestic environment through integrated autoethnographic and digital recording approaches (Figure 3). Among these methods, diary entries were always written at night, as retrospective reflections following intimate moments, composed at times when memory surfaced vividly. Through writing, emotions were recorded as if relived, with the diary offering a deeply immersive mode of recollection. However, due to its strong subjectivity, this method often lacked certain objective details. Photographs, by contrast, were captured quickly in moments when intimacy was felt, targeting specific details within the space or scene that could later support memory. This process revealed that photographs contain a higher degree of detail than textual memory. The visual prompts they offer often triggered vivid recollections and associative memories, rendering those moments more tangible. Yet the act of photography itself tended to interrupt the immediacy of experience, fragmenting the memory into parts rather than preserving it as a continuous whole. Video documentation was captured through fixed cameras

**Figure 3.** Author's home space, 3D scanning produced interior axonometric drawing. Image created by author.

installed in the kitchen and living room, spaces where intimate interactions frequently occurred. Recordings during morning and evening family routines captured verbal exchanges, gestures, and environmental details. While this method preserved a rich set of behavioural and spatial cues, the fixed viewpoint limited immersive engagement. The perspective remained observational, detached, and non-embodied. Through 3D scanning and VR headset interaction, the researcher was able to revisit and walk through a virtual model of their home, marking locations where intimate memories were triggered and providing spoken descriptions. This approach allowed for a spatial re-tracing of memory. By mapping events and emotional moments onto specific areas of the home, it established a spatial relationship between story and subject, enriching the dimensionality of recollection. However, like diary writing, this method was retrospective and not synchronous with the original experience.

These findings offer comparative insights into intimacy in virtual space. Table 1 provides an overview of the household context. Table 2 compares data collected through the various recording methods, and Table 3 presents examples of the four documentation approaches. This research methodology is extended into the case study component of the thesis, in which similar scanning and VR-based observation techniques will be applied within house museums. By comparing spatial data and experiential feedback from the

**Table 1.** Family member information form.

| Role | Age | Gender | Background Information | Degree of Intimacy with the Researcher (1–10) |
|---|---|---|---|---|
| Grandma | 71 | Female | Retired civil servant; enjoys travelling, reading, and socialising | 7 |
| Mum (AUTHOR) | 34 | Female | PhD researcher and designer; enjoys observing and writing | 10 |
| Daughter | 5 | Female | Year 1 primary school pupil; energetic and enjoys dancing | 9 |

**Table 2.** Self-data recording method and characteristics.

| Recording Method | Frequency & Timing | Format of Content | Way of Evoking Intimacy | Equipment Used |
|---|---|---|---|---|
| Diary | Every evening | Text | Memory recall | Notebook/Word documents |
| Photos | Taken during intimate moments | Images | Visual observation and associative thinking | Mobile phone |
| Video | Once a week (3 times total) | Video + audio | Memory recall through people pausing and scenery | DJI Pocket 2 |
| VR Participation + Narration | Twice a week | Virtual space + audio + subtitles | Spatial and visual triggers for recall | Mobile phone (3D scanner app), Oculus Quest 2 VR headset, mobile phone recorder |

researcher's domestic space and institutional domestic heritage environments, this methodology directly contributes to addressing the second research question: *In what ways can digital environments replicate the intimacy and subjectivity typically associated with domestic collections?*

Using the living room sofa as an example: while an artefact in a museum may serve as evidence of history, within the home, this object reveals multiple dimensions of social relations, emotion, memory, and spatial experience – particularly when documented through different media. In diary entries written at night, I documented the interactions and emotional fluctuations that took place around the sofa: for instance, Grandmother placing a yellow cushion beneath the sunken part of the sofa. This act, while addressing comfort, was also perceived by me as a silent language of domestic care. When I later removed the cushion to play with my daughter, only to find it restored to its original place upon returning late at night, the series of subtle actions traced an ongoing negotiation and tacit understanding among family members through the medium of objects. Surprisingly, during the process of retrospection within the immersive VR environment, memories were triggered by environmental details, expanding the narrative beyond its primary storyline.

Through comparison, it becomes evident that immersive spatial observation embeds intimacy within the structure of space itself. While the observer engages from a first-person perspective, this re-entry into remembered space does not always evoke full emotional immersion. Instead, the participant often adopts an observational, object-like role – watching rather than fully being. There emerges a subtle sense of detachment, as if one is observing oneself in the act of remembering, rather than wholly re-inhabiting the remembered moment. This dual awareness creates a complex affective state: intimate yet distanced; embodied yet reflective. It generates a perceptual circuit of *space, memory, action, observation*, in which the subject oscillates between immersion and analysis. In this way, digital intimacy in VR appears to be structured around a memory-driven narrative logic that not only reactivates emotional associations but also situates them within a visible and navigable spatial context. As such, it offers a method for recording and analysing intimate experiences that integrates affective perception with the architecture of space.

**Table 3.** Data content (partial).

| Diary | Today I noticed two patterned cushions tucked into the slightly sagging part of the sofa—Grandma must have come up with that solution, though it made the sofa look even more worn out. I took them out and, after placing them behind me, my daughter and I started playing games… When Grandma was cooking and watching us, I noticed her squatting down and carefully inserting the cushions under the sagging part of the sofa. She seemed to feel that it made the seat less lopsided. I agreed, though such arrangements made the room look a bit messy, especially since the sunken part of the sofa is quite serious. Grandma didn't say a word. When I returned from my evening shift, the living room light was on, and both Grandma and my daughter had fallen asleep. The two cushions had been placed back underneath the sofa. |
|---|---|
| Photos |  |
| Video |  |
| VR Participation + Narration |  This is the living room I was living during the research project. It's quite small, but it gets good sunlight. The sofa looks very comfortable, though it's a bit sunken—perhaps because my daughter always jumps on it. Grandma often tucks a cushion underneath to make it feel more level when sitting. |

It is important to note that all these observations and recordings were conducted within the researcher's own home, where the setting itself nurtured the unfiltered emergence and perception of intimacy. However, as these data were transformed into objects of display, a certain degree of loss and distortion occurred in the communication and interpretation of intimate content. In a subsequent phase of the study, selected participants, comprising academic peers, colleagues, and friends who were familiar with either design research or museum contexts, were invited to enter a virtual reconstruction of my domestic space. The process involved guided digital walkthroughs and open-ended reflective conversations, either in person using a VR headset or via screen-sharing platforms. This act of inviting others into a curated version of my private space heightened my own sense of self-protection and prompted deeper reflection on the shifting relationship between researcher, object, and audience. Notably, the narratives I offered varied depending on the participant, influenced by the nature of our

relationship and their perceived role. This act of participation echoes, in a speculative way, the experience of visiting a house museum: both involve entering an intimate domestic space that has been partially transformed for public engagement. A crucial issue arises here: the act of exposing personal information within a public environment inevitably displaces intimacy, reframing it through the lens of performance, interpretation, and control. Yet during participants' visits, those moments that the owner sought to conceal or found embarrassing often generated unexpected resonance, revealing a form of authenticity rarely encountered in everyday life. In the next stage of this research, the methodology will be extended to The Glasgow Tenement House Museum (TGTHM), where I will employ fieldwork, interviews, digital spatial mapping, and comparative analysis to investigate how intimacy is evoked and transformed within house museums. This will also provide an opportunity to examine how differing contexts of use influence the perception and transmission of intimate experience.

## 7. The Tenement House: institutional intimacy and emotional curation

The Glasgow Tenement House, is a typical nineteenth-century Glasgow tenement occupied for many years by Miss Agnes Toward, located at 145 Buccleuch Street in Glasgow. Miss Agnes Towards moved into this tenement in 1911 and lived there until 1965. Even during her hospitalisation, she continued to pay rent to maintain her residence, ensuring its preservation. Miss Towards could hardly have imagined that her home would remain sealed after her passing, eventually becoming a significant fragment of Scottish social history. Today, TGTHM retains the original layout, fixtures, and personal belongings of a typical Scottish urban dwelling, providing visitors with an immersive experience of historical living conditions. Miss Towards's house was fortunately preserved, and through her long-term residence and collection practices, visitors can piece together the everyday scenarios of the period. These reconstructed scenarios are rooted in a detailed understanding of daily life, where subtle thoughts and responses to the surrounding environment form the basis for an intimate design approach.

The survival of TGTHM can be seen as a stroke of fate. Miss Agnes Towards, an avid collector, never married and had no children. After her death, the landlord intended to clear out the flat for rental or renovation. In accordance with her will, a few chairs were to be given to a local church deacon, Sam Davidson. Accompanying him to the flat was his niece, Anna Davidson, who, upon entering the flat for the first time, was struck by the quality of its original furnishings and decided to try and preserve all of them. In a 2024 interview, she recalled:

> I was just fascinated by what was there and how it had survived (Anna Davidson's recollection of her first visit to The Tenement House with her uncle: A conversation with Anna Davidson, 2024, l. 1:15 min-2.09 min)

The data collected from this case study, including patterns of room usage and interior decor, facilitates discussions surrounding urban domestic life in Glasgow during the period of Miss Towards's residence. Within the rooms of the Tenement House, curators have strategically placed objects associated with privacy, enabling visitors to engage in an intimate imagining of everyday private and routine behaviours from the past, with a close sense of authenticity. As private and intimate domestic spaces are transformed into

public museum environments, commonplace objects undergo a shift in interpretive status. What was once familiar and unremarkable in the context of daily life becomes, in the museum setting, a site of reflection, curiosity, and at times, estrangement. In this setting, although individual imagination cannot be fully visualised or recorded, it enriches the curatorial strategies and deepens the interpretive layers of the space.

Through case studies of TGTHM, by field work, communication with museum staff and comparing physical museum experience and using digital scanning, I am engaging in an in-depth discussion of these findings alongside the trajectory and spatial feedback of my own domestic life. Through these means I have observed how objects in museums often undergo a narrative shift. Once objects enter the museum, their original emotional meanings and multi-layered narrative potential are frequently replaced by societal narratives, diminishing their personal connections. Eva Illouz, in her 2007 work, examines the commodification of romantic intimacy in modern society, arguing that intimate relationships are increasingly shaped by marketisation and consumer culture. She later expands on this idea in *Cold Intimacies* (Illouz 2007), where she introduces the concept of 'emotional capitalism'. Illouz explains how emotions and intimacy are moulded by the logic of capital, resulting in 'cold intimacy' – a form of connection influenced by commodification and consumerist rituals. Her research highlights how modern intimacy has become ritualised and commodified within capitalist societies, shaping the ways intimacy is now presented in the digital age.

However, Zelizer (2000), in her study *The Purchase of Intimacy*, emphasises that intimacy continues to exist and can be traced even within commodified and consumerist contexts. Rather than assuming that commercial exchange entirely erases intimacy, she argues that genuine forms of intimacy can and should be recognised through the subtle and situated experiences of individuals. Törnqvist (2021) builds on this idea in *Communal Intimacy*, examining how modern collective environments foster new forms of intimacy. Using the example of housing, she discusses how shared living spaces, often arising from migration due to work opportunities and life demands in modern cities, redefine intimacy. In such environments, relationships between individuals are shaped by survival factors rather than traditional emotional bonds. Törnqvist uses the shared kitchen in communal apartments as a case study. In these spaces, residents maintain polite, cooperative relationships, with kitchen utensils collectively and tacitly organised. However, Törnqvist emphasises that while modern intimacy in such public settings may lack the warmth of traditional intimacy, it can still manifest and be experienced through spatial interactions. She argues that exploring and developing the conditions and environments under which intimacy can appear in modern contexts can help individuals rediscover a corresponding warmth in their relationships.

Intimacy in public spaces has become an inevitable aspect of the contemporary network environment. However, this shift also reminds us that we should avoid over-simplifying and analysing intimacy in public settings based solely on its linguistic connotations. If intimacy is understood as a collaboration with the outside world that is initiated by the individual and begins from the subject, then public and cyberspace intimacies challenge the inevitability of being scrutinised by an unselective audience. When applied to the virtual museum, this tension calls for a more nuanced framework. I propose the concept of *Selected Public Intimacy*: a form of intimacy that emerges through acts of sharing, made public only under chosen conditions, within specific

**Figure 4.** The Glasgow Tenement House museum, 3D scanning produced interior axonometric drawing. Image created by author.

environments, or before selected audiences. In the context of virtual house museums, this notion serves to evoke resonance: a process that seeks understanding and participation in the unique expression of the individual. For example, when the previous occupier of TGTHM, Miss Towards, opens her living room or dining room to host a party or dinner, the invited guests become projections of the host's intimate imagination at the outset.

I scanned TGTHM (Figure 4) using the 3D scanning method I had applied in documenting my own residence, seeking traces of intimacy through spatial exploration and conversations with museum staff. During the 3D scanning process, I found that, even within these institutional environments, certain objects can still evoke a latent sense of intimacy in visitors. This allows the spatial structure of the museum to shift, momentarily, towards the softer, more complex qualities of a domestic space. As visitors engage in the cognitive process of interpreting these objects, new emotional and associative connections begin to form.

My own apartment is also located in a tenement building. As such, when using the 3D scanner within the Tenement House, the spatial familiarity triggered a strong association with my own home (Figures 5, 6). Unfortunately, due to constraints of time, the limited



**Figure 5.** The comparison digitised spaces between my apartment (left) and the Glasgow Tenement House museum (right). Image created by author.
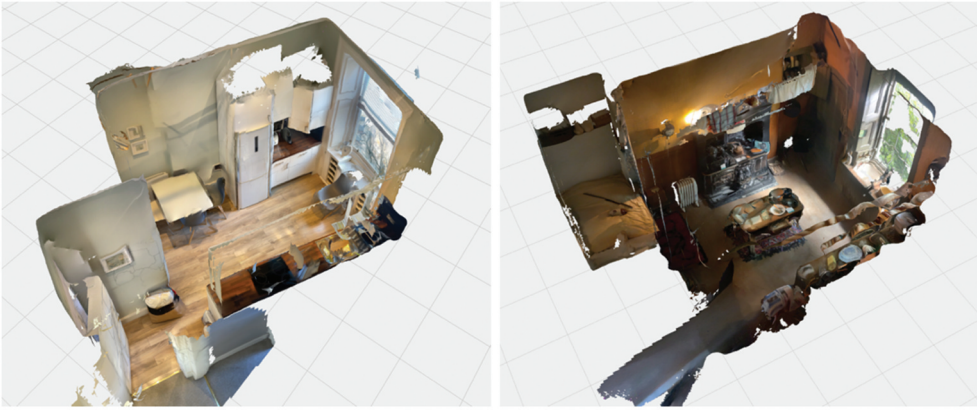
**Figure 6.** Comparison of 3D scans: modern renovated tenement flat kitchen (left) and tenement house museum kitchen (right). Image created by author.

depth of content presentation, and the nature of the museum as a public space with visitors, these connections often remained fleeting and could not be fully sustained.

Since its transformation into a museum, interpretive authority over TGTHM has shifted to the National Trust for Scotland, the curator, and a dedicated group of volunteers. Through their narratives, the museum's collection is continually reconnected to lived reality. In the volunteers' storytelling, the decorations and objects within the museum are often described in a more domestic, everyday manner. For example:

> If you leave you and walk towards channing crust, you're then at the top of soccer hall street, the main shopping one. I know that if you walk down walk to the next street. And that becomes bath street and right when the corner there. You will see the king's theatre that is a very old heritage. (Interview with Tenement House volunteer, No. T6)

> We have a volunteer community, The last time when the tea party was in home with house, and there was a lady, there who as a volunteer at home with us and she told me that she attended Glasgow school of art in 1959. Right? She remembers seeing Miss Agnes Towards turtle walking around the streets here, dressed up. (Interview with Tenement House volunteer, No. T7)

> Yeah. There's nothing missing. Yeah, and when the house was found, there were actually five sets of dining chairs in the house. Agnes had obviously been given them, but people were, she just kept everything. (Interview with Tenement House volunteer, No. T9)

From conversations with staff and volunteers, it became clear that intimacy is often transmitted through a process of self-reflection. Although they had all received the same training, each guide naturally developed their own emphases – momentarily inhabiting the role of the Tenement House's 'host' An example of this can be seen during my time at the Tenement House, where I spent significant periods engaging with volunteers and attentively observing subtle changes within the space. Over this extended engagement, I began to uncover stories that existed beyond the official exhibition narrative. One such object was a plain wooden stick placed on the bed – an unassuming yet meaningful tool. When I returned to the Tenement House a month later, during a quieter moment with

fewer visitors, I asked one of the volunteers about her favourite object in the collection. Skipping any formal introduction, she responded with enthusiasm:

> Oh, then I want to tell you – it must be this (the wooden stick on the bed). This is the most essential stick for the closet bed. I once had one! When you get up and want to clean up your bed, it's very useful. You just need to pick up the quilt at the head of the bed, and you can easily fold it. Holding the quilt at both the head and foot of the bed, you can tidy everything up neatly. I like to call it a magic wand – it makes my bed look really good.

> (Interview with Tenement House volunteer, No. T3)

Through her skilful demonstration and warm explanation, the object took on new meaning. Her story, and the delight with which she shared it, made the moment unforgettable. I came to understand that the sharing of memory is inherently non-standardised and marked by spontaneity, individuality, and a sense of presence. From that encounter, the wooden stick became, for me, the most vivid and enduring image of the Tenement House – transcending its plain materiality to become a cherished memory. This moment shares a deep resonance with the practices of Miss Agnes Towards, who welcomed friends into her home and allowed them to experience intimacy firsthand. Her wide-ranging collecting practices revealed intimacy not only through the objects themselves but through the personal narratives and everyday actions that underpinned them. These stories formed a basis for shared perception, allowing information to flow through her subjectivity as host. In this way, the volunteers' choices of objects within the exhibition reflect a broader and more varied set of connections than even Agnes's own collection – becoming the product of public intimacy forged through the interweaving of multiple subjectivities.

Using a VR headset, I revisited the digital space of the Tenement House and selected objects that evoked a personal sense of intimacy. In contrast to the intimacy I experience within my own home, the intimacy of the virtual Tenement House can be described as reflective intimacy, a form of emotional recognition mediated through my own memories and self-awareness. I categorised my responses to these objects into four dimensions:

(1) Collaborative Intimacy, intimacy shaped through engagement with objects and media, involving embodiment, interactivity, translucent materials, and immersive visuals.
(2) Sensory (Material Intimacy), intimacy experienced through the detailed replication of physical traces, such as high-quality visuals, marks of use or wear, and spatial structures held in cognitive memory.
(3) Metaphorical (Relational Intimacy), intimacy generated through symbolic resonance and embodied atmosphere, where familiar rhythms and bodily connections emerge through spatial form.
(4) Creative (Mnemonic Intimacy), intimacy extended through self-expression and acts of remembering, encompassing emotional creation and personal recollection. (see Table 4)

These objects were then analysed in relation to their emotional and spatial resonance. Interestingly, the same object could reflect my experience of intimacy in different ways,

**Table 4.** Category of digital intimacy with specific reflection in the tenement house museum.

| Theme/Category | Sub-topic | description | The Tenement House |
|---|---|---|---|
| Deep Collaboration with Objects and Mediums | a. Embodiment (Zoom, interactive objects) | In the physical setting of a historic house museum, the presence of domestic artefacts often evokes an instinctive desire to reach out, to hold, to inspect objects closely from different angles. | the 'wally dugs', the 'bed stick', the egg tongs, the pot mender |
| | b. Translucent structure visual material | In domestic house museums, translucent materials often generate a soft, breathable kind of visual intimacy—sunlight filtering through lace curtains, refracted patterns from coloured glass, or the diffuse glow of winter light on frosted windows. These effects invite not only observation but also a spatial sensitivity, as they shift subtly with the viewer's position. | lace curtains, low-winter light, glass reflections, perfume bottles and beaded tea cosy |
| | c. Immersive visuals | Sometimes, upon entering a room, the sense of intimacy is not tied to any single object but arises from the imagination to overall atmosphere—a bodily resonance created by the interplay of a tiny clue, light, shadow, tone, and spatial arrangement. | all details and elements at the Tenement House background, such as advertising calendar |
| Hyper-Perceptual Replication of Physical Materials | a. High-quality visuals | A particular kind of intimacy emerges through the gaze—through extended attention to worn materials such as a sagging seat cushion, yellowed wallpaper, or the softened sheen on a wooden floor where generations have walked. | textiles, ironing board, tabletop covered with coal dust, worn-out door handle, toothbrush |
| | b. Usage/oxidation/damage characteristics | The presence of dust, rust, chipped plaster, and worn surfaces are more than historical evidence—they are material records of time's passage and the tactile imprint of human contact. These signs of deterioration lend a raw authenticity and an intimate atmosphere to the space. | oil lamps which create discolouration, letter paper with ink stains, decayed textiles |
| | c. Structure of original space (in cognitive) | The relationship between body and space is one of the most intimate architectural experiences. | the bed recesses |
| Deep Metaphorical Content Related to Personal Information | a. Familiar rhythm and atmosphere | Time in the domestic space is often sensed through rhythm: the hourly chime of a clock, the crackling of a fireplace, the patterned sound of horses' hooves from the street. These auditory cues form what might be called the "breath" of the home—bodily rhythms that shape familiarity and habit. | grandfather clock 'The ticking sound and hourly chime create a peaceful atmosphere', 'the wireless' |
| | b. Connection between body and space structure (embodiment) | Climbing a narrow staircase or entering a cramped dressing room evokes a spatial intimacy that is not defined by measurements alone, but by the body's responses—its breath, posture, rotation, and tension. | the bathroom suite |
| Personal Space for Creative Expression | a. Emotional creation | Some rooms are more than functional spaces—they serve as emotional extensions of their inhabitants. | the kitchen space |
| | b. Memory creation | Domestic objects often serve as vessels of memory. The Kilmarnock chest in the Tenement House collection may appear inert, yet they quietly carry generational narratives and emotional residue. | Kilmarnock chest, '1938 exhibition tumbler', photographs |

depending on the context, the mode of interaction, or the narrative framework through which it was encountered.

The following outlines 10 prototypes of intimate display and how they are transformed in the process of digitisation.

(1) Embodiment (Zoom, interactive objects). In the physical setting of a historic house museum, the presence of domestic artefacts often evokes an instinctive desire to reach out, to hold, to inspect objects closely from different angles. These items serve not only as visual references but also as narrative tools used by museum staff during guided tours. Yet, despite their interpretive importance, such objects remain untouchable so that barriers to intimacy persist. In the virtual environment, however, this distance collapses. Using VR headsets and handheld controllers, visitors can zoom in, pick up, rotate, and closely examine artefacts that were once physically out of reach. Although these virtual objects lack the physical weight of their real-world counterparts, the immediacy of haptic feedback and the clarity of visual detail help to fulfil the viewer's desire for information and close inspection. At the same time, they deepen the sense of 'holding' within the virtual space. This intensified engagement exceeds what is possible in the real-world setting, offering a hyperreal translation of object-based intimacy, an experience more tactile in perception, though immaterial in form.

(2) Translucent structure visual material. In domestic house museums, translucent materials often generate a soft, breathable kind of visual intimacy, sunlight filtering through lace curtains, refracted patterns from coloured glass, or the diffuse glow of winter light on frosted windows. These effects invite not only observation but also a spatial sensitivity, as they shift subtly with the viewer's position. While visible in physical museum spaces, such moments are typically confined by spatial boundaries and distance. In virtual environments, however, real-time rendering technologies enable the dynamic reproduction of these subtle visual nuances. Visitors can move closer, change angles, and witness the evolving interaction between light and surface. This capacity to approach, observe, and respond to visual phenomena from multiple perspectives allows such forms of intimacy to be translated into digital form, heightened not by invention, but by access.

(3) Immersive visuals. Sometimes, upon entering a room, the sense of intimacy is not tied to any single object but arises from the overall atmosphere, a bodily resonance created by the interplay of light, shadow, tone, and spatial arrangement. In TGTHM, this atmosphere is crafted through light, still-life compositions, advertising calendar, and layered fabrics, producing a quiet, theatrical immersion. In a virtual environment, this sense of immersion can be reimagined through spatial lighting design, tonal colour palettes, and ambient audio. Unlike conventional exhibitions that restrict the viewer to a frontal or fixed perspective, VR enables users to look from specific angles, corners, or even perspectives that emulate a specific inhabitant's point of view. These sensory affordances allow the digital atmosphere to unfold with presence and affect. As such, this form of environmental intimacy is translated in the virtual realm.

(4) High-quality visuals. A particular kind of intimacy emerges through the gaze, through extended attention to worn materials such as a sagging seat cushion, yellowed wallpaper, or the softened sheen on a wooden floor where generations have walked. In physical museums, these visual textures often demand close proximity to be fully appreciated, yet such closeness is typically restricted by curatorial boundaries and signage. In the virtual environment, however, high-resolution photogrammetry and scanning techniques enable the accurate reproduction of these surface details, fibres, fading tones, and frayed edges included. Viewers can zoom in freely, pause on specific textures, or shift between materials to compare their subtle differences. This degree of visual access renders the intimacy of surface materiality effectively translated.

(5) Usage/oxidation/damage characteristics. In spaces such as the Glasgow Tenement House Museum, the oil lamps that leave traces of discolouration on the walls, the letter paper marked with ink stains, and the decayed textiles softened by years of use are more than historical evidence; they are material records of time's passage and the tactile imprint of human presence. These signs of wear and deterioration lend a raw authenticity and an intimate atmosphere to the space. In digital environments, such traces can be convincingly simulated through texture mapping and 3D modelling. The discolouration, the stains, and the frayed fabrics can be made visible, yet the sensory density, the faint smell of oil, the dryness of paper, the fragility of aged cloth, even the imagined taste of dust or old air, remains inaccessible. One can see these signs but not feel or sense them fully. As a result, this form of intimacy is only partially translatable into digital form: it may visually resemble the original, but it cannot convey the complete multisensory truth.

(6) Structure of original space. The relationship between body and space is one of the most intimate architectural experiences. Sitting within the recessed bed alcove of the Tenement House produces a distinct bodily awareness of enclosure and expansion. The sudden shift from a high-ceilinged gallery to a compressed chamber is not just visual, it is felt in the spine, the shoulders, the pace of breath. In virtual environments, such spatial transitions can be reconstructed in accurate 3D form, and viewers can navigate them freely, even experimenting with perspective scaling. However, the lack of haptic or proprioceptive feedback in current VR systems means that the full somatic sensation is absent. One does not feel the ceiling pressing down or the difficulty of turning one's body in tight quarters. Thus, this form of intimacy is partially translatable, the spatial logic remains intact, but the embodied response is diminished.

(7) Familiar rhythm and atmosphere. Time in the domestic space is often sensed through rhythm: the hourly chime of a clock, the crackling of a fireplace, the patterned sound of horses' hooves from the street. These auditory cues form what might be called the 'breath' of the home, bodily rhythms that shape familiarity and habit. In physical museums, such sensory markers are frequently used to construct atmosphere yet are easily disrupted by background noise or visitor traffic. In virtual environments, however, a more personalised soundscape can be crafted, where auditory intimacy wraps closely around each individual viewer. While olfactory cues remain absent, digital environments can evoke

similar sensorial layers through the interplay of spatial sequencing, material diversity, and carefully designed sonic rhythms. Changes in texture, lighting, and music can generate affective pacing, transforming the mood of a room as the visitor moves through it. Rather than directly replicating smell or touch, the virtual space unconventionally translates domestic rhythm through montage, composition, and user-sensitive design. This results in a new kind of sensory intimacy, constructed not through direct mimicry, but through atmospheric choreography.

(8) Connection between body and space structure. Climbing a narrow staircase or entering a cramped dressing room evokes a spatial intimacy that is not defined by measurements alone, but by the body's responses, its breath, posture, rotation, and tension. In TGTHM, the experience of scale is deeply subjective, understood not through visual metrics but through the kinaesthetic intelligence of movement. In virtual environments, spatial dimensions can be faithfully modelled and visually represented. One can see narrowness, yet cannot feel the need to twist, duck, or brace the body. Even the most accurate digital reconstructions lack the physical resistance and embodied negotiation that define these intimate encounters. As a result, this form of bodily spatial intimacy is barely translatable, it is cognitively recognised but not corporeally lived.

(9) Emotional creation. Some rooms are more than functional spaces; they serve as emotional extensions of their inhabitants. The kitchen of the Glasgow Tenement House, for instance, embodies a quiet domestic intimacy, where the soft glow of gaslight, the worn surfaces of everyday utensils, and the muted tones of the interior evoke feelings of warmth, care, and nostalgia. In the physical setting, such moods emerge organically through the interplay of light, material texture, and spatial enclosure, often enveloping the visitor instantly. In digital environments, these atmospheric effects can be simulated with even greater precision – light can linger, time can be suspended – but the emotions themselves remain authored by the system, not born from the user. The perceived authenticity of emotion in such environments depends heavily on the viewer's sensory orientation and imaginative engagement. Thus, this form of intimacy is unconventionally translated: it cannot be directly rendered but must be activated through interpretive participation. More than passive spectatorship, the digital visitor may recreate emotional intimacy by projecting personal moods, preferences, or associative memories onto the space. The potential to embed one's own objects or preferences, reminiscent of emotionally meaningful environments, suggests a future for virtual house museums as affective platforms for co-authored emotional resonance.

(10) Memory creation. Domestic objects often serve as vessels of memory. The Kilmarnock chest in the Tenement House may appear inert, yet this and other objects quietly carry generational narratives and emotional residue. In virtual environments, these objects can be digitised, animated, and accompanied by recorded stories, transforming them into accessible digital archives. However, unless the viewer has a personal connection to the object or its narrative, the emotional resonance may remain distant; what is presented is still someone else's memory. Genuine intimacy arises only when the viewer projects themselves into

**Table 5.** Six levels of intimate translation in digital media.

| TRANSLATION LEVEL | DESCRIPTION |
| --- | --- |
| 1. Hyperreal translation | The representation exceeds physical reality, offering enhanced or exaggerated intimacy digitally. |
| 2. Effectively translated | The intimate quality can be reproduced with relative completeness in digital form. |
| 3. Translatable | In an ideal scenario, the translation would achieve success on both technical and perceptual levels, resulting in an effect that closely approximates the original. |
| 4. Partially translatable | Only certain sensory or structural aspects are conveyed; emotional or embodied depth is lacking. |
| 5. Barely translatable/Hard to translate | The intimacy is difficult to express digitally, especially involving touch, smell, or temporal memory. |
| 6. Unconventionally translated | Intimacy is not directly replicated but evoked symbolically or through narrative and interaction. |

the scene, investing it with their own emotional texture. In this sense, memory-based intimacy is unconventionally translated. Technology can provide the narrative framework, but the emotional core must be filled by the participant. Digital environments offer alternative forms of engagement, inviting users to personalise, adapt, or recompose memory spaces. Through such mechanisms, the memory of the museum expands outward, no longer fixed but dynamically shaped by the viewer's own experience. Rather than preserving memory as static inheritance, the virtual context enables it to be co-authored, emotionalised, and remembered differently.

Based on the categories identified above, I analyse how intimacy is digitally represented in TGTHM and categorise this into six levels (Table 5).

The following outlines 10 prototypes of intimate display and how they are transformed in the process of digitisation.

From the above analysis and Table 6, it becomes clear that, within the framework of

**Table 6.** Digital translatability of intimacy in Glasgow Tenement House museum.

conventional museum display, objects with a singular or straightforward materiality are more easily able to convey their original sense of intimacy in virtual museum settings. In contrast, narratives and multidimensional content require perspectives that allow for dissection and dynamic visual presentation in order to be effectively communicated. The combination of sound and image often enhances the experience of intimacy.

However, certain elements, such as air, ambient scent, subtle spatial tensions, rhythm, and touch remain difficult to translate into digital media. For example, in the kitchen space of The Glasgow Tenement House Museum, the warmth of the gaslight, the faint scent of soap and polish, and the compactness of the domestic setting evoke a deeply lived sense of everyday intimacy. Similarly, the Kilmarnock chest, with its traces of use and personal repair, embodies an emotional history that resists full translation into digital form. The tactile qualities, atmospheric warmth, and sensory nuances of such spaces and objects make the intimacy embedded within them particularly challenging to communicate in virtual environments.

## 8. Discussion

The act of collecting within the domestic space allows narratives to shift from broad collective frameworks towards personal, affective dimensions. At the same time, the public display of intimacy in museum contexts enables that intimacy to be presented empathically to strangers, creating perceptual connections between individuals who might otherwise remain unlinked. The key lies in the origin and intent behind the act of collecting. The museum, historically, is rooted in broad and often private collections, princes's cabinets, cabinets of curiosity, each formed with specific intentions that later shaped the institutional foundations of museum practice. Modern physical museums have largely evolved along these trajectories.

When private objects enter museums and become cultural symbols or topics of public discussion, their proxy meanings undergo significant transformation. Within the museum, the narrative of such objects is often reduced to a socialised framework, which diminishes the layered emotional exchanges between object and viewer. Michel Foucault's theory of 'knowledge and power' is particularly relevant to analysing this phenomenon. In *Of Other Spaces*, Foucault and Jay (1986) argue that museums, as symbols of knowledge and power, shape audience understanding through standardised narratives. Within this framework, objects serve as symbolic carriers of historical and cultural knowledge, while their original, personalised memories and emotional meanings are compressed into a singular representation.

In this research, I found that although museums confer cultural and historical significance on objects, this significance often cannot override the diversity and richness of personal interpretations (Bennett 1995). While the functionality of objects, whether related to daily life, labour, or emotional value – may be acknowledged in curatorial displays, the personal memories and affective connections that these objects once evoked are constrained by the institutional functions and public nature of the museum space. Institutionally driven collecting practices are ill-suited to accommodate the presence of intimacy. Both in purpose and in spatial presence, they remain distanced from real people and lived experiences. This process, I contend, restricts the audience's ability to

engage with objects through the lens of intimacy, thereby limiting the potential for deeper emotional connections and relational growth between object and viewer.

Furthermore, when personal memories and aspects of private life are discussed in public spaces, this leads to a shift in the focus of collective and historical research. Through public display, cultural information is extracted from the social environment and embedded into the exhibits, transforming personal life objects into cultural monuments and symbols. These objects come to embody memories and ideas with significance far greater than their original functional or situational use.

On the other hand, memory itself is notoriously difficult to describe or document; it can only be analysed and interpreted, as it remains the deeply personal and subjective right of the individual. Perception flows and abstracts during the process of recall, making memory elusive and intangible. Michel Abadie and Beale (2007) highlight these limitations in *Nothing to Write Home About*, pointing out that while images can visually record a scene, transcribing memory is particularly challenging. Memory operates as an abstract translation of the invisible, and museum content, designed for a wide and often indeterminate audience, struggles to capture this complexity.

The challenge becomes even more pronounced in this intergenerational and multi-cultural context, where individuals with differing cultural backgrounds often fail to reach a shared understanding of the same object or exhibit. This 'regretful sharing' highlights the inherent limitations of cultural sharing in museum spaces, suggesting that public welfare objectives are not fully achieved. Without addressing these barriers, the potential for museums to truly democratise cultural understanding and foster shared narratives remains unfulfilled.

What is even more thought-provoking is that aesthetic judgements permeate our everyday lives, we are all, in some sense, snobs. Pierre Bourdieu's *Distinction* (1984, first published in 1979) brilliantly illuminates the social pretensions of the middle classes in the modern world, particularly focusing on the tastes and preferences of the French bourgeoisie. Bourdieu argues that in the course of everyday life, we constantly navigate between what we find aesthetically pleasing and what we deem tacky, merely trendy, or ugly. For Bourdieu, taste is far from pure; instead, it is deeply entwined with social distinctions and class dynamics.

Bourdieu demonstrates that our aesthetic choices function as markers of distinction, reflecting the social hierarchies in which we are embedded. These choices are often in alignment with, or in opposition to, the preferences of other classes. He divides society into various fields (e.g. art, education, economy), each governed by its own rules, power dynamics, and mechanisms for allocating capital. In the cultural field, taste acts as a form of capital, consolidating the social order through aesthetic judgements. This forms a specific application of Bourdieu's broader concept of *cultural capital*.

The upper classes maintain their dominance through cultural power, defining and codifying what is considered 'high' and 'low' culture. This hierarchy is then normalised and perpetuated through education and social structures, further entrenching their influence.

In digital environments, such inequalities persist in more covert and even dangerous forms. Numerous scholars have raised concerns about the risks posed by raw data once it is detached from its original subject, risks that include misappropriation, manipulation, plagiarism, and exploitative analysis. A notable example is the controversy surrounding

Google Arts & Culture's 2018 'Selfie Match' feature, which gained viral popularity on social media (Senft 2020). While the platform stated that uploaded images would be 'temporarily stored only for matching purposes' and would not be used to train AI models or build databases, public scepticism remained high. Many questioned whether Google genuinely deleted the images or secretly used them to train facial recognition systems. This feature was banned in states such as Illinois and Texas, which enforce strict biometric privacy laws – such as the Biometric Information Privacy Act (BIPA) – that require companies to provide clear notice and obtain written consent before collecting or storing facial geometry data (Langone 2018). The controversy illustrates that even ostensibly 'voluntary' sharing of intimate data in digital spaces is fraught with concerns around transparency and control. In regulatory contexts with weaker legal safeguards, users' autonomy over their data – particularly when that data represents deeply personal or embodied information – remains highly vulnerable.

In the digital heritage context, AHD (Smith 2006) is not dismantled but rather reconfigured. The visual and narrative strategies used to curate digital exhibitions often reproduce the authoritative tone and epistemological assumptions of traditional museums. Interface design becomes a tool not only for presenting content but also for maintaining interpretive hierarchies and controlling access. Metadata schemas, curatorial language, and algorithmically driven recommendation systems embed institutional biases into the user experience, subtly guiding audiences towards dominant historical narratives and emotionally sanctioned forms of engagement. While digitisation is often presented as a means of democratising access and decentralising knowledge, it can obscure deeper structures of exclusion, curatorial gatekeeping, and affective regulation. In this sense, digital heritage platforms operationalise AHD through algorithmic logic, embedding the same power asymmetries into supposedly participatory and inclusive digital spaces.

In the context of the virtual museum, the intervention of digitisation into the material qualities of artefacts has, in many cases, eroded certain inherent properties and cultural affiliations originally embedded within the objects themselves (Loder 2021). Once digital platforms gain access to intimate data, they may intensify algorithmic analysis of content, often in subtle and concealed ways. While digitisation appears to bring culture closer to the public, in reality it centralises cultural 'sovereignty' through processes of platformisation, datafication, and algorithmic filtering. This tension is strong in digital contexts: even when digitisation appears to democratise access, the act of publishing, curating, and circulating intimate content inevitably shifts interpretative control away from the subject to external viewers, platforms, and systems of mediation. As Risam (2019) has argued in *New Digital Worlds*, digital projects often reinscribe asymmetries of power under the guise of openness, highlighting how infrastructures of access remain bound to colonial and institutional legacies.

My own autoethnographic practice illustrates this dilemma. In constructing a digital representation of my family, I carefully reviewed the ethical policy and adhered to it throughout the process. I worked with their consent and made every effort to balance the publication of private information with respect for personal boundaries. Nevertheless, the act of digitisation inevitably transferred interpretive power to others. Once intimate memories were made digitally visible, they became open to readings and judgements beyond our control. Here the tension between consent and exposure becomes evident:

while permission legitimises the act of sharing, it cannot neutralise the structural redistribution of power in digital heritage spaces. As Sharon Macdonald (2009, 3) notes in her work on *Difficult Heritage*, the public circulation of sensitive or uncomfortable content often exceeds the intentions of those who produce it, creating dissonance between personal meanings and external appropriations.

This recognition prompts a shift in emphasis: rather than reproducing centralised models of interpretative authority, future approaches to virtual museums should explore how digital environments might sustain intimacy while mitigating asymmetries of power. Witcomb's (2015) discussions of affective heritage are instructive here, reminding us that the mediation of heritage is always entangled with emotions, and that affective engagement must be handled with sensitivity to context, audience, and consent. In other words, in digital platform, the question is not only who has the right to view, but also how and under what conditions intimacy can be maintained and protected in public-facing digital formats.

In reflecting on these tensions of power, it becomes clear that future models of the family museum in virtual form should prioritise intimacy rather than authority. Much like a family photo album, such spaces ought to maintain a close connection with the individual, sustaining both immediacy and safety in digital openness. Digitisation must therefore be attentive to the flexible and timely interpretation of intimate content, acknowledging that personal expressions are oriented more towards the discovery of one's own feelings than towards external judgement of words or images. Through the lens of *Selected Public Intimacy*, a virtual family museum should function less as a fixed archive of interpretation and more as a selective, supportive medium for expression, open where desired, reserved where necessary, preserving the intimacy of the private within the accessibility of the digital.

Moreover, the construction of data as 'raw material' with natural value, as the World Economic Forum (WEF) claims: *personal data will be the new 'oil' – a valuable resource of the 21st century . . . becoming a new type of raw material that's on par with capital and labour* (WEF 2011, 5). Within this framework, personal data is positioned not as relational or contextual, but as extractable and commodifiable. The growing presence of digital heritage platforms hosted or designed by Western institutions has raised increasing concern about *digital colonialism* (Couldry and Mejias 2019; Mignolo 2011). Much like colonial museums extracted and displayed cultural artefacts to assert knowledge and power, contemporary platforms risk repeating this pattern in digital form – centralising content from diverse communities without granting those communities agency in narrative formation, data control, or representation. In these cases, intimacy becomes a form of aesthetic capture, where the emotive power of objects is used to produce engagement, but the conditions of storytelling remain asymmetrical.

Therefore, in current digital infrastructures, platforms often extract and aggregate users' intimate data. Beyond questions of data ownership and consent, these personal records may be appropriated for AI training or content recommendation systems, subjecting cultural material to the logic of 'virality' and algorithmic optimisation. Research from contemporary scholarship on algorithmic bias, notably Mehrabi et al. (2021) work on fairness in machine learning, demonstrates how AI systems embed demographic and attribute-based errors into supposedly neutral platforms. These biases, which fuel forms of digital colonialism, resonate with Pasquinelli's (2023) critique that artificial intelligence is not a reproduction of 'intelligence' per se, but rather an extension of labour control mechanisms – constituting a form of

cognitive colonialism. Although Van Eyghen (2025) adopts a broadly optimistic stance towards AI, he nonetheless emphasises that AI algorithms should be guided by virtue-based ethics. In practice, however, such systems often distort original contexts and reinforce colonial hierarchies. Structural limitations further constrain their capacity, leaving AI largely confined to mathematical and deterministic modes of reasoning.

## 9. Conclusion

Drawing from three key dimensions, the function, social role, and meaning of museums, and engaging critically with the work of Tony Bennett, Eilean Hooper-Greenhill, and George E. Hein, it becomes clear that while museums are often regarded as spaces for learning through interaction with objects, narratives, and experiences, they are far from neutral. Instead, they operate within structured systems of power and knowledge that actively organise and shape meaning.

This highlights a critical gap in museum studies: the neglect of intimacy and the limited acknowledgement of visitor subjectivity within the museum experience. It also raises important ethical questions about how digital intimacy will be negotiated in future museum environments. The *Authorised Heritage Discourse* (AHD) continues to define who has the authority to interpret 'heritage' and whose voices are excluded. Similarly, the redistribution of 'digital power' remains asymmetrical. Although digitisation practices aimed at democratisation may inadvertently reinforce new forms of platform dominance, the unfolding of time-based digital records offers a valuable means of comparison. Such records can reveal how narratives shift across different stages, exposing contrasting interpretive logics and tracing transformations in meaning through the passage of time and space.

Through the analysis and comparison between the researcher's own tenement residence and TGTHM, the extensive object collection and domestic environment together constitute a framework for intimacy. This arises from the home dweller's careful documentation and expression of everyday life. In the case of TGTHM, Miss Towards's possessions connect the physical space to her subjectivity, offering today's visitors a rare opportunity to glimpse the past through a lens of lived, intimate reality. For virtual museums, this highlights the importance of recognising and accommodating individuals' desire to collect and preserve memory. Such an approach not only redefines the connection between objects and individuals but also has the potential to influence the internal dynamics and politics of each visitor's family. The integration of collection-based heritage with both domestic and public contexts may contribute to conflict resolution in the social lives of individuals and groups, fostering a deeper understanding of personal and collective narratives alike.

Mainstream, recognisable content is amplified, while marginal or less legible narratives are either submerged or stripped from their original contexts. This set of risks reveals a critical tension: in virtual museums, narrative authority over digital content is vulnerable to the same dynamics Bourdieu critiques – but in a reversed form. Here, the crisis lies not in the concentration of cultural power within elite institutions, but in the detachment of data from its originating subject. Intimacy, by nature, is dispersed and context-dependent; thus, raw data must remain closely tied to its creator, with a clear

framework of responsibility to preserve the affective and subjective integrity of its origin during circulation.

In this light, the cultural authority once held by museums becomes fragmented. Personal, intimate forms of vision and narrative – rooted in the individual's affective connection – emerge as new interpretive mediators of traditional culture.

While scholars such as Giddens (1991), Bauman (2007), and Appadurai (1996) have examined consumption and globalisation – arguing that cultural and aesthetic judgements are shaped by complex factors beyond class alone – Smith's *Authorised Heritage Discourse* (AHD) and Bourdieu's concept of *cultural capital* remain among the most influential frameworks for understanding how museum content standards are constructed and legitimised. When these theories are applied to the museum context, it becomes evident that collections stripped of personal intimacy and subjectivity often struggle to convey the tangible emotional insights rooted in lived experience. Within institutional exhibition narratives and the distribution of cultural authority, such collections frequently fail to offer visitors meaningful affective engagement or to preserve the authenticity of the objects displayed. By contrast, digital artefacts within virtual museums, when linked to personal intimacy, present a new set of challenges. These include the legal and ethical frameworks surrounding data management, encoding, encryption, and the complex determination of ownership and usage rights.

In light of these frameworks, this research contributes to the theoretical exploration of the form and function of virtual museums within museum studies, directly addressing the research questions:

(1) What is intimacy, and how is it generated, manifested, and made meaningful within physical space?
(2) In what ways can digital environments replicate the intimacy and subjectivity typically associated with domestic collections?
(3) How can the agency and interpretive authority of digital intimacy be strategically situated and understood within digital heritage, and what challenges might this entail?

Drawing from the findings of digital self-ethnography and theoretical inquiry, this study reveals that intimacy originates from emotional interactions in everyday life, moments when the self is briefly projected onto the surrounding environment through acts of care and attention. Such projection is not merely a personal longing, but involves a complex interplay of merging, sharing, and yielding subjectivity. In physical reality, intimacy is embedded in the developmental process of human identity. The home plays an important role in this period, it as both a space and a concept, holds records of this intimate growth, functioning as a repository of subjective experience. When transferred into the digital realm, this intimacy extends beyond the object being collected, it also captures the self at the moment of care. In this way, digital records can generate a sense of authenticity and trust, shaped by emotional investment.

However, such comprehensive recording requires a deep entanglement between digital devices and everyday life, a condition that already exists. Some participants, for example, noted that they check their phones before sleep or leave music playing during a shower. These habits reveal how deeply digital interaction has embedded itself in the

rhythms of daily life. Yet from an ethical standpoint, the potential for constant data collection raises serious concerns about surveillance and safety.

In response, this research argues that while intimacy may enhance the perceived authenticity of digital heritage objects, it must also be balanced with strong individual control over intimate data. This includes the ability to determine what is shared, when it is shared, and in what form. In the context of future virtual museums, such control is essential for safeguarding personal agency and preserving the affective truth of digital memory. The intersection of intimacy and digital heritage therefore demands not only technological innovation but also careful reflection on governance, accessibility, and accountability. Resolving issues of data control and agency can unlock the potential of digital collecting. Collecting itself, as Stewart (1993, 150–151) suggests in her discussion of nostalgia, can be understood as a gesture of resistance against disappearance. Digital reproductions do not threaten the status of the original; rather, like photography, they preserve an impression of an event as material for retrospection without replacing the event itself. Yet within the multidimensional structure of digital reproduction, greater attention should be paid to the initial impulse to record, the evolution of narratives over time, and the emergence of multiple versions. Through the processes of collection, 3D generation and creation, subjectivity extends into the digital artefact, becoming part of memory itself and offering a renewed way of presenting and understanding the past.

## Disclosure statement

## Notes on contributor

*Haitang Zhang* is a doctoral researcher in design studies based in the UK, focusing on virtual museums and digital heritage within the digital humanities. Her research explores how virtual environments can evoke intimacy and emotional engagement through speculative design, spatial ethnography, and participatory investigation. Integrating interdisciplinary approaches from cognitive theory, post-anthropology, and sociology, Haitang examines how personal memory and everyday life inform the design of immersive virtual spaces.

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## References

Abadie, M., and S. Beale. 2007. *Nothing to Write Home About*. London: The Friday Project.

Adams, T. E., S. Holman Jones, and C. Ellis. 2015. *Autoethnography*. *Understanding Qualitative Research*. New York, NY: Oxford University Press.

Appadurai, A. 1996. *Modernity at Large: Cultural Dimensions of Globalization*, Public Worlds, Vol. 1. Minneapolis: University of Minnesota Press.

Arendt, H., and M. Canovan. 1998. *The Human Condition*. 2nd ed. Chicago: University of Chicago Press.

Barns, S. 2020. *Platform Urbanism: Negotiating Platform Ecosystems in Connected Cities*. Singapore: Palgrave Macmillan Singapore (Springer Nature). https://doi.org/10.1007/978-981-32-9725-8.

Barrett, J. 2011. *Museums and the Public Sphere*. Oxford: Wiley-Blackwell.

Bauman, Z. 2007. *Consuming Life*. Cambridge: Polity Press.

Baym, N. K. 2010. *Personal Connections in the Digital Age. Digital Media and Society*. Cambridge: Polity Press.

Benjamin, J. 1983. "In a Different Voice: Psychological Theory and Women's Development, by Carol Gilligan." *Signs: Journal of Women in Culture and Society* 9 (2): 297–298. https://doi.org/10.1086/494050.

Bennett, T. 1995. *The Birth of the Museum: History, Theory, Politics. Culture: Policies and Politics Series*. London and New York: Routledge.

Bourdieu, P. 1973. "Cultural Reproduction and Social Reproduction." In *Knowledge, Education, and Cultural Change*, edited by R. Brown, 71–112. London: Routledge.

Bourdieu, P. 1984. *Distinction: A Social Critique of the Judgement of Taste*. Translated by Richard Nice. Cambridge, MA: Harvard University Press.

Cancian, F. M., and L. Jamieson. 1998. "Intimacy: Personal Relationships in Modern Societies, by Lynn Jamieson." *Contemporary Sociology* 27 (6): 586–587. https://doi.org/10.2307/2654235.

Casey, V. 2005. "Staging Meaning: Performance in the Modern Museum." *TDR/The Drama Review* 49 (3): 78–95. https://doi.org/10.1162/1054204054742507.

Choi, H.-S., and S.-H. Kim. 2017. "A Content Service Deployment Plan for Metaverse Museum Exhibitions—Centering on the Combination of Beacons and HMDs." *International Journal of Information Management* 37 (1): 1519–1527. https://doi.org/10.1016/j.ijinfomgt.2016.04.017.

Couldry, N., and U. A. Mejias. 2019. "Data Colonialism: Rethinking Big Data's Relation to the Contemporary Subject." *Television & New Media* 20 (4): 336–349. https://doi.org/10.1177/1527476418796632.

Descartes, R. 2013. *Meditations on First Philosophy: With Selections from the Objections and Replies*. Translated by John Cottingham. Cambridge: Cambridge University Press.

Dudley, S. H., ed. 2010. *Museum Materialities: Objects, Engagements, Interpretations*. London and New York: Routledge.

Duncan, D., and G. W. Dowsett. 2010. "There's No Teleology to It; It's Just About the Spirit of Play: Men, Intimacy, and 'Late' Modernity." *The Journal of Men's Studies* 18 (1): 45–62. https://doi.org/10.3149/jms.1801.45.

Durkheim, É. 1995. *The Elementary Forms of Religious Life*. Translated by Karen E. Fields. New York: The Free Press.

Ellis, C., T. E. Adams, and A. P. Bochner. 2011. "Autoethnography: An Overview." *Historical Social Research/Historische Sozialforschung* 36 (4): 273–290.

Erikson, E. H. 1994. *Identity and the Life Cycle*. New York: W. W. Norton & Company.

Foucault, M., and M. Jay. 1986. "Of Other Spaces." Translated by Jay Miskowiec. *Diacritics* 16 (1): 22–27. https://doi.org/10.2307/464648.

Giddens, A. 1991. *Modernity and Self-Identity: Self and Society in the Late Modern Age*. Stanford, CA: Stanford University Press.

Giddens, A. 1992. *The Transformation of Intimacy: Sexuality, Love and Eroticism in Modern Societies*. Stanford, CA: Stanford University Press.

Hetherington, K. 2006. "Museum." *Theory, Culture & Society* 23 (2–3): 597–603. https://doi.org/10.1177/0263276406023002107.

Hodge, C. J., and C. M. Beranek. 2011. "Dwelling: Transforming Narratives at Historic House Museums." *International Journal of Heritage Studies* 17 (2): 97–101. https://doi.org/10.1080/13527258.2011.541063.

Illouz, E. 2007. *Cold Intimacies: The Making of Emotional Capitalism*. Cambridge: Polity Press.

Kohlenberg, R. J., B. Kohlenberg, and M. Tsai. 2009. "Intimacy." In *A Guide to Functional Analytic Psychotherapy: Awareness, Courage, Love, and Behaviorism*, edited by M. Tsai, R. J. Kohlenberg, J. W. Kanter, B. Kohlenberg, W. C. Follette, and G. M. Callaghan, 115–128. New York: Springer. https://doi.org/10.1007/978-0-387-09787-9_6.

Kopytoff, I. 1986. "The Cultural Biography of Things: Commoditization as Process." In *The Social Life of Things: Commodities in Cultural Perspective*, edited by A. Appadurai, 64–91. Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9780511819582.

Lacan, J. 2006. *Écrits: The First Complete Edition in English*. Translated by Bruce Fink. New York: W.W. Norton & Company.

Langone, A. 2018. "You Can't Use Google's New Selfie Art App in These States." TIME. January 17. https://time.com/5106798/google-selfie-app-not-work-states/ .

Liberati, N. 2024. "Digital Intimacy and Slimy Circuits: Seeping into a? Dirty? Postphenomenology." *Global Philosophy* 35 (1): 1–14. https://doi.org/10.1007/s10516-024-09739-w.

Loder, D. 2021. "The Aesthetics of Digital Intimacy: Resisting Airbnb's Datafication of the Interior." *Interiors: Design/Architecture/Culture* 11 (2–3): 282–308. https://doi.org/10.1080/20419112.2021.1945816.

Lupton, D. 2015. *Digital Sociology*. London and New York: Routledge. https://doi.org/10.4324/9781315776880.

Macdonald, S. J. 2009. *Difficult Heritage: Negotiating the Nazi Past in Nuremberg and Beyond*. London and New York: Routledge.

Williams, P. ed. 2011. "Memorial Museums and the Objectification of Suffering." In *Routledge Companion to Museum Ethics: Redefining Ethics for the Twenty-First Century Museum*, edited by J. Marstine, 48–63. London and New York: Routledge.

Marx, K. 1867. *Das Kapital: Kritik der Politischen Ökonomie*, Hamburg: Otto Meissner Verlag. http://archive.org/details/in.ernet.dli.2015.124455.

Mauss, M. 2002. *The Gift: The Form and Reason for Exchange in Archaic Societies*. London: Routledge.

McCormack, H. 2024. "House and Home in Georgian Ireland: Spaces and Cultures of Domestic Life." *Journal of Design History* 37 (2): epad022. https://doi.org/10.1093/jdh/epad022.

Mehrabi, N., F. Morstatter, N. Saxena, K. Lerman, and A. Galstyan. 2021. "A Survey on Bias and Fairness in Machine Learning." *ACM Computing Surveys* 54 (6): 35. https://doi.org/10.1145/3457607.

Message, K. 2018. *The Disobedient Museum: Writing at the Edge*. London and New York: Routledge Museums in Focus.

Michel de, C., and R. Steven. 1984. *The Practice of Everyday Life*. Translated by Steven Rendall. Berkeley: University of California Press.

Mignolo, W. D. 2011. *The Darker Side of Western Modernity: Global Futures, Decolonial Options*. Durham, NC: Duke University Press. https://doi.org/10.2307/j.ctv125jqbw.

Miller, D. 2010. *Stuff*. Cambridge: Polity Press.

Miller, R. S. 2015. *Intimate Relationships*. 7th ed. New York: McGraw-Hill Education.

Moran, A., ed. 2014. *Love Objects: Emotion, Design, and Material Culture*. London and New York: Bloomsbury.

Murphy, J. W., and C. A. Schlaerth. 2015. "Tourism at the Museum and the Life-World/Muziejų Turizmas ir Gyvenamasis Pasaulis." *Creativity Studies* 8 (2): 115–123. https://doi.org/10.3846/23450479.2015.1033484.

Oswin, N., and E. Olund. 2010. "Governing Intimacy." *Environment and Planning D: Society and Space* 28 (1): 60–67. https://doi.org/10.1068/d2801ed.

Parry, R. 2007. *Recoding the Museum: Digital Heritage and the Technologies of Change*. London and New York: Routledge: Museum Meanings.

Pasquinelli, M. 2023. *The Eye of the Master: A Social History of Artificial Intelligence*. London and New York: Verso.

Pękowska, R. 2022. "Embodied Cognition and the Limits of Digital Museum Experience." *Museum International* 74 (1–2): 134–143. https://doi.org/10.1080/13500775.2022.2157571.

Perry, S., M. Roussou, M. Economou, H. Young, and L. Pujol. 2017. "Moving Beyond the Virtual Museum: Engaging Visitors Emotionally." Proceedings of the 23rd International Conference on Virtual Systems & Multimedia (VSMM 2017), New York: 1–8. IEEE. https://doi.org/10.1109/VSMM.2017.8346276.

Pink, S. 2021. *Doing Visual Ethnography*. 4th ed. London: SAGE Publications.

Prager, K. J., F. K. Shirvani, J. J. Garcia, and M. Coles. 2013. "Intimacy and Positive Psychology." In *Positive Psychology of Love*, edited by L. F. Barbara and J. S. Robert, 21–39. Series in Positive Psychology. Oxford: Oxford University Press. https://doi.org/10.1093/acprof:oso/9780199791064.003.0002.

Risam, R. 2019. *New Digital Worlds: Postcolonial Digital Humanities in Theory, Praxis, and Pedagogy*. Evanston, IL: Northwestern University Press.

Schiller, D. 1999. *Digital Capitalism: Networking the Global Market System*. Cambridge, MA: MIT Press.

Senft, T. M. 2020. "When the Face Is Data." In *The Routledge Companion to Mobile Media Art*, edited by L. Hjorth, S. Pink, and K. Sharp, 159–170. London and New York: Routledge.

Shelton, A. 2013. "Critical Museology." *Museum Worlds* 1 (1): 7–23. https://doi.org/10.3167/armw.2013.010102.

Smith, L. 2006. *Uses of Heritage. Heritage Studies*. London and New York: Routledge.

Srnicek, N. 2017. "The Challenges of Platform Capitalism: Understanding the Logic of a New Business Model." *Juncture* 23 (4): 254–257. https://doi.org/10.1111/newe.12023.

Stephen, A. 2003. "Intrinsic Information in the Making of Public Space: A Case Example of the Museum Space." *Space and Culture* 6 (3): 309–329. https://doi.org/10.1177/1206331203251658.

Stewart, S. 1993. *On Longing: Narratives of the Miniature, the Gigantic, the Souvenir, the Collection*. Durham and London: Duke University Press.

Cameron, F., and S. Kenderdine. 2007. *Theorizing Digital Cultural Heritage: A Critical Discourse*. Cambridge, MA: MIT Press.

Törnqvist, M. 2021. "Communal Intimacy: Formalization, Egalitarianism, and Exchangeability in Collective Housing." *Social Forces* 100 (1): 273–292. https://doi.org/10.1093/sf/soaa094.

Van Dijck, J. 2013. *The Culture of Connectivity: A Critical History of Social Media*. Oxford: Oxford University Press. https://doi.org/10.1093/acprof:oso/9780199970773.001.0001.

Van Eyghen, H. 2025. "AI Algorithms as (Un)Virtuous Knowers." *Discover Artificial Intelligence* 5 (1). https://doi.org/10.1007/s44163-024-00219-z.

Veblen, T. 2017/1899. *The Theory of the Leisure Class*. London and New York: Routledge. https://doi.org/10.4324/9781315135373.

Vosoughi, S., D. Roy, and S. Aral. 2018. "The Spread of True and False News Online." *Science* 359 (6380): 1146–1151. https://doi.org/10.1126/science.aap9559.

Waterton, E., and S. Watson, eds. 2015. *The Palgrave Handbook of Contemporary Heritage Research*. London: Palgrave Macmillan UK. https://doi.org/10.1057/9781137293565.

Winnicott, D. W. 2018. "Ego Distortion in Terms of True and False Self (1960)." In *The Maturational Processes and the Facilitating Environment*, edited by M. Khan and R. Masud, 140–152. London: Routledge. https://doi.org/10.4324/9780429482410-12.

Witcomb, A. 2015. "Thinking about Others through Museums and Heritage." In *The Palgrave Handbook of Contemporary Heritage Research*, edited by E. Waterton and S. Watson, 135–149. London: Palgrave Macmillan. https://doi.org/10.1057/9781137293565.0014.

World Economic Forum. 2011. "Personal Data: The Emergence of a New Asset Class." Geneva: World Economic Forum. https://www.weforum.org/publications/personal-data-emergence-new-asset-class/ .

Zelizer, V. A. 2000. "The Purchase of Intimacy." *Law & Social Inquiry* 25 (3): 817–848. https://doi.org/10.1111/j.1747-4469.2000.tb00162.x.