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The topology of power in digital memory governance: An analysis based on Stiegler's theory of tertiary retention

Shaopeng Wu

wspengacademic@163.com

Xi'an Jiaotong University

Bolin Zhang

Shanghai University

Article

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Abstract

Digital technologies expand the preservation and retrieval of records while changing how people understand the past and transmit experience. This article brings Stiegler's theory of tertiary retention into dialogue with a topological account of power through conceptual analysis and normative argument. Tertiary retention explains how technical records participate in experience; the topological perspective identifies who can organise digital memory and how their decisions acquire influence. Examining spatial access, temporal rhythms and self-narration shows how control can be sustained through interdependent decisions even when no actor owns all the relevant records. Dependence becomes problematic when those affected cannot examine an account's grounds, contribute to its interpretation or challenge the arrangements governing its circulation. The effects of such control on historical understanding, group reputation and self-understanding provide grounds for duties to give reasons, respond to objections and correct errors. The article proposes negentropic governance as a normative orientation towards the development and transmission of knowledge. Beyond preserving reliable records, this orientation asks whether people can reinterpret inherited materials, articulate different experiences and develop new understanding. Topological intervention connects these aims to the allocation of access rights and authority over presentation and revision, enabling digital memory to support the development and transmission of knowledge.

Introduction

Digital technologies increasingly organise how people encounter the past. Personal images, public records and historical materials are preserved, retrieved and presented through platforms and other institutions. A record can remain stored yet be difficult to find; an old fragment can return to a new audience; a generated account can connect materials whose original contexts are unclear. These arrangements influence the evidence available for understanding an experience and the people able to contribute to its interpretation. Digital memory governance therefore concerns the authority to organise encounters with records, and the opportunities of those affected to examine and change the resulting accounts.

Research on mediated memory increasingly connects cognitive processes with sociocultural practices and technological environments (Han, 2023). Within this field, accounts of narrative agency show how digital technologies can guide self-understanding along particular narrative pathways (Osler, 2025). Conversational AI extends this involvement by responding to people as they revisit their lives, making remembering a process organised through interaction between people and systems (Telakivi, 2026). Algorithmic forgetting also involves selection: materials can remain stored while receding from everyday use (Karataş, 2026, pp. 1274–1275). At the level of collective remembering, generative technologies can change the values through which engagement with the past is assessed (Matei, 2024). These contributions clarify how digital memory is shaped through interactions between people and technical systems. They also give grounds for examining how people's interpretive activity depends on decisions made by platforms and institutions.

The issue pursued here is how technical participation in remembering gives particular actors control over the conditions of interpretation. Sorting and recombining records determine which sources are encountered together, which contexts remain available and whose testimony enters an account. Such an account can become a basis for judging an individual, a group or a historical event. Someone may reject the account yet lack the authority to change the materials or classifications through which others continue to encounter it. This difference between being able to interpret an experience and being able to influence its organised representation gives memory control its specific significance.

Topological analyses of algorithmic governance already examine how relations among actors acquire political form (Tan, 2025). The present inquiry develops this perspective to examine the organisation and governance of digital memory. Storage, selection, generation and circulation may be distributed among several actors, so responsibility cannot be inferred from ownership alone. The analysis asks how their decisions establish effective control, and why control affecting historical understanding, group reputation or self-narration calls for explanation and response.

Bringing Stiegler's theory of tertiary retention into dialogue with a topological account of power makes this connection explicit. Tertiary retention explains how external records participate in experience and the transmission of knowledge (Stiegler, 2011). A topological approach locates the relations through which actors extend or restrict their influence (Allen, 2016). Their combination distinguishes dependence on technical supports from dependence on arrangements that subjects cannot readily scrutinise or change. Through conceptual analysis and a hypothetical comparison of two systems with different access permissions and allocations of authority over revision, the article examines spatial access, temporal rhythms and self-narration as dimensions of memory control. The normative argument then establishes grounds for public responsibility and develops negentropic governance as an orientation towards the conditions of interpretation and knowledge transmission. Three questions guide the discussion.

1. 1. How can the organisation of digital memory restrict people's participation in interpreting the past even as digital records proliferate?
2. 2. How do platforms and other institutions exercise control over digital memory by organising access to records, the timing of their presentation and the conditions of self-narration?
3. 3. What are the grounds and limits of public responsibility in digital memory governance, and how can negentropic governance support interpretation and the transmission of knowledge?

1 Tertiary retention and the constitution of digital memory

Tertiary retention provides a starting point for understanding digital memory. Writing, images, sound recordings and other technical supports allow aspects of experience to be transmitted beyond the presence of the person who first lived through them. They also participate in how later recipients perceive, remember and understand the world (Stiegler, 2011). Digital technologies further change how records are preserved, reproduced and retrieved. To understand these changes, it is necessary to

distinguish lived experience, the records it leaves and the activities through which those records are used and interpreted. These processes are interconnected, but each depends on different conditions. Analysing digital memory consequently requires an account of how experience takes shape through technical supports, beyond the question of data storage alone.

Husserl's analysis of internal time-consciousness establishes the background to this argument. Primal impression presents what is occurring now; retention holds what has just elapsed within the unfolding present; and protention anticipates what is about to occur (Husserl, 1991). When a melody is heard, earlier notes remain retained in current perception, allowing subsequent notes to belong to a continuous melody. Stiegler distinguishes primary retention, the holding of the just-past within perception, from secondary retention, the recollection of past experience. He then asks how external records participate in both processes. In identifying a third kind of memory arising from recordings, he refers to 'a memory Husserl designates as consciousness of image' (Stiegler, 2011, pp. 16–17). His criticism concerns the constitutive place of external records in time-consciousness. Paintings, sculptures and recordings can preserve a past that their viewers or listeners never lived through, yet that past can still enter their present experience. Through such records, people encounter new materials, revise their understanding and acquire resources for interpreting subsequent experience. The function of a record therefore extends beyond reawakening an already formed recollection.

Repeated listening makes this constitutive relation particularly clear. The same recording of a melody can be played again, but the second hearing has already been affected by the first. Familiarity, attention and expectation have changed, allowing the listener to hear different aspects of an unchanged recording. Stiegler uses this example to show how secondary retention conditions the selection involved in primary retention, while tertiary retention makes repeated perception of the same temporal object possible (Stiegler, 2011, pp. 17–20). The repetition of a record can thus coincide with a transformation of experience. The recording enables renewed contact with the object, and previous experience shapes what is selected during that encounter. The selection, in turn, helps determine what can subsequently be remembered, understood and anticipated.

Tertiary retention also connects individual experience with historical inheritance. Documents, images and other records allow people to understand events they did not experience and to encounter new questions through inherited languages, concepts and narratives. Cultural memory contributes to group identity through symbolic forms and social organisation that endure across generations (Assmann, 2011). What is inherited includes materials about the past as well as ways of recognising problems and judging their significance. Reading, recounting and discussing those materials bring the past into different circumstances of life. Intergenerational transmission consequently depends on the continuation of interpretive practices as well as the survival of records. A record can endure while the background and knowledge needed to understand it disappear. Conversely, new discoveries may change the interpretation of the same material. Digital storage enlarges the available archive, but the continuation of knowledge still depends on these activities of interpretation.

Digital technologies change, in particular, how records enter present experience. Rapid retrieval, repeated presentation and recombination can alter a record's audience and context of use. Mediated memories take shape through interactions among people, technological objects and sociocultural practices; the significance of a record also develops through its use (van Dijck, 2007). The same image serves different purposes as a personal memento, a news item or historical evidence. Preserving the image or improving its retrievability does not ensure that its context and the differences between sources are adequately explained. Technical availability must therefore be distinguished from interpretive adequacy. Provenance, the time of a record's creation and its context of use affect what the record can support and where the limits of an interpretation lie.

Technical supports have a pharmacological ambivalence. In Plato's Phaedrus, Thamus's criticism of writing already raises the tension between external assistance and the exercise of one's own memory (Plato, 1914, 275a–b). Stiegler situates this problem within the economic and social organisation of technics. He relates toxic effects to implementation through 'an economic and industrial model that has itself become massively toxic' (Stiegler, 2020, p. 189). People rely on external records to inherit knowledge, and technical supports can sustain reading, comparison and exchange. Where ready-made interpretations repeatedly replace these practices, however, using records may become detached from the activities through which judgement is formed. Stiegler's critique of the industrialisation of memory identifies one such organisation. Large-scale production and commercial circulation can bind the selection of materials to the capture of attention and the pursuit of market returns. His term 'proletarianization of the nervous system' extends the problem of dispossession of knowledge into cognitive and affective activity (Stiegler, 2010, pp. 45–46). The critique locates alienation in the organisation of technics and its implications for the capacities of subjects.

Generative AI sharpens these questions. Retrieval primarily brings existing materials into use, whereas generative models produce new expressions from relationships encoded through training and from the current input. Retrieval and generation can also be combined. Machine learning's extraction and modelling of social knowledge connect generated accounts to prior practices of knowledge production (Pasquinelli and Joler, 2021). A generated narrative may help organise materials and prompt associations, yet it may also assemble information from different origins into an apparently coherent past. Fluency does not establish the adequacy of historical grounds. Recent work on large language models (LLMs) and personal memory examines how dialogue allows systems to participate in recalling, interpreting and narrating experience (Smart et al., 2026). Users can compare generated accounts with their own experiences, supply missing context and reject inappropriate descriptions. System involvement therefore makes the identification of narrative grounds especially important. Whether generated expressions can be related to original records and lived experience, whether alternative interpretations remain available and whether errors can be corrected all affect how people understand their lives.

Generative interaction also raises questions about the values attached to remembering. A postphenomenological account suggests that responsivity and affinity may displace authenticity and

accuracy as reference points for engaging with the past (Matei, 2024). This possibility requires critical assessment. An account's responsiveness to a user does not establish its historical warrant, even when it creates a meaningful encounter. Hoskins describes the danger as a 'black box memory of impossible provenance' (2026, p. 1). For the present analysis, the decisive question is how generated connections can be examined. Identifying the original materials is only part of that task. People also need to distinguish what the materials establish from the connections inferred between them. Otherwise, a narrative can appear well sourced while the steps connecting its sources remain beyond scrutiny. Governance must therefore address the grounds of a generated account as well as the availability of its component records.

The constitutive significance of tertiary retention raises the question of control over digital memory. Because records participate in experience, control over their preservation, selection and presentation can shape how the past is encountered and understood. A topological approach examines how actors extend or limit their influence by organising relations of connection (Allen, 2009, 2016). An organisation need not possess every record to make others dependent on its decisions. Control over a search entry point, presentation rules or permissions to revise records may be sufficient. Understanding this dependence calls for a comparison of different ways of organising digital memory.

As a hypothetical comparison, consider two digital systems that preserve the same materials and offer similar search functions. One allows users to trace sources, add context and have corrections reflected in subsequent presentations. The other supplies a prearranged narrative whose grounds and circulation users find difficult to change. Both participate in experience through technical records, but they give subjects different positions within the process. Tertiary retention explains the constitutive significance of this technical participation. A topological analysis identifies how the allocation of access permissions and authority over revision subjects people to different degrees of control. Combining the two perspectives makes it possible to examine alienation through people's ability to influence how digital memory is organised. The extent of technical use alone is insufficient to establish whether subjects retain autonomy.

2 Topologies of power and the control of digital memory

A topological approach asks how proximity, distance, inclusion and accessibility are constituted through social relations. Geographical closeness need not provide access to resources or participation in decisions, while a distant institution may continually shape everyday activity. Allen describes the reconfiguration of power's reach in terms of 'drawing others within close reach through near instantaneous forms of communication' (2009, p. 205). Applied to digital memory, this approach examines how records enter people's lives and how authority over preservation, retrieval and presentation creates unequal capacities to influence those encounters. Law, ownership and institutional authority remain important in determining who can preserve records, set access rules and handle revision requests. Technical arrangements make these powers effective in everyday use. Storage, retrieval and content generation may be undertaken by different actors, yet control over a crucial entry

point can still shape what other participants encounter. A topological analysis directs attention to how authority is exercised, dependencies are established and decisions can be changed (Allen, 2016). The following analysis develops three dimensions of this control: spatial access, temporal rhythms and self-narration.

Spatial control concerns the distribution of availability and visibility. A record's preservation establishes only that it has not disappeared. Whether it can be found, who can find it and which other materials accompany it depend on search entry points, classification and access permissions. Research on Facebook shows how the algorithmic organisation of the feed makes visibility conditional and confronts users with a 'threat of invisibility' (Bucher, 2012). Some pasts can become difficult to bring into public discussion without any record being deleted. Missing indexes, low rankings or restricted access may be enough. Conversely, fragments repeatedly recommended and prominently displayed can become the principal materials through which an experience is understood. Platforms can acquire the scale and indispensability of infrastructures, making their organisation of access a matter of everyday dependence (Plantin and Punathambekar, 2019). The strength of control also depends on alternative routes of access. Where the same record can be retrieved, checked and preserved through several sources, a single actor's influence over its circulation is limited. Where a record is available only through a particular account or closed interface, dependence on the organisation increases. An extract detached from its archive may circulate widely while its original context remains inaccessible. Proximity in circulation can thus coexist with distance in interpretation, unevenly distributing the scope and grounds of people's understanding of the past.

Classification shapes the relations through which accessible records become intelligible. Lury et al. locate topological ordering in 'sorting, naming, numbering, comparing, listing, and calculating' (2012, p. 3), which establish continuities while marking differences. Bowker and Star observe that 'Each standard and each category valorizes some point of view and silences another' (1999, p. 5). Applied to digital memory, this directs attention to the categories through which records are connected. Materials placed under the same label can appear to confirm one account, while differently classified testimony becomes harder to relate to it. A record may therefore be retrievable yet difficult to introduce into an established interpretation. The authority to revise categories matters because it affects which connections users can investigate and which differences their inquiries can express.

Temporal control concerns when records appear, how often they return and how much time people have to interpret and respond to them. A record may resurface many years after its creation, as an automated reminder abruptly brings a fragment into present life. Research on quantified nostalgia shows how likes and other metrics make past content available for scoring, evaluation and resurfacing, while shaping users' emotional attachments to the past (Jacobsen and Beer, 2021). Where anticipated engagement governs retrieval, disparate experiences may be measured against the same standard, and their displayed significance may diverge from their place in lived experience. Timing can also distribute opportunities to act unequally. In high-frequency trading, the time taken to receive, process and respond to market information is critical to profit and loss (MacKenzie, 2021, p. 19). Digital memory involves a

different temporal asymmetry: systems can rapidly push records, generate accounts and circulate them, while those affected require more time to trace sources, interpret context and request correction. An account may already have shaped others' judgements before verification is complete, and a later correction may not undo that influence. Control over timing therefore governs the rhythm at which the past enters the present and may narrow opportunities to challenge and correct its representation.

Automated reminders also select the past through the demands of the present. Henriksen (2024) interprets algorithmically generated memories as a form of perception organised through calculation, distinguishing this operation from human recollection. The point for governance is that a system can return an old record because it fits a current classification or predicted response. Its age alone does not explain its selection. The same stored material may consequently enter different narratives as those criteria change. Examining temporal control therefore includes asking which present purposes determine the return of the past and whether users can understand and contest that selection.

Control at the level of the subject concerns how external representations enter self-understanding. Digital systems classify and predict through behavioural traces, then use these representations to arrange the information and options individuals encounter. Work on algorithmic governmentality describes the production of 'statistical doubles' through processes that bypass the individual subject's own account (Rouvroy and Berns, 2013). Within digital memory, behavioural histories, interest labels and automatically generated summaries can similarly compose an external image that repeatedly returns to the person described. By selecting experiences for renewed attention and connecting them in particular ways, a system shapes the materials available for self-understanding. The person is simultaneously a contributor of records, the subject of representation and the recipient of a narrative. Where external representations continually determine which experiences receive attention, while the person has little opportunity to supplement, reject or revise them, control over digital memory shapes the conditions of self-narration.

Users nevertheless continue to interpret their pasts. Research on everyday digital memory identifies deleting, delaying and linking as tactics for negotiating tensions between resurfaced records and lived experience (Jacobsen, 2022). An experimental study of birthday remembering also found that participants used digital resources to supplement internal recollection and gain new insights (Hutmacher et al., 2026). Interpretive capacity, however, is distinct from the authority to alter system arrangements. A person may reject an automatically generated recollection yet be unable to change how it appears to others. They may add an account of their experience without changing the classifications that continue to guide recommendations. Effective participation depends on whether people's interpretations can shape how digital memory is organised, particularly whether amendments are retained and recognised in subsequent uses.

These dimensions of spatial access, timing and self-narration intersect in practice. Their interaction helps explain why control can persist even when no actor owns all the relevant records. A record may remain accessible in an archive while a platform repeatedly presents only a selected extract. That extract

may then supply the basis for a generated account of a person or event. In such a case, access to the original does not by itself determine what circulates or how it is understood. The timing and repetition of presentation can give one account continuing prominence, while the opportunity to add context remains confined to another location. Each decision may have a limited scope, yet their combination can make the selected account difficult to contest in practice.

The effect of a correction likewise depends on its passage between these stages. Revising a source record may leave accounts derived from an earlier version unchanged. Someone who can explain an omission may still depend on another actor to connect that explanation to the account people encounter. The asymmetry therefore concerns the relations between decisions as well as the authority exercised at each stage. It becomes more persistent where participants cannot carry a challenge from the point at which they identify a problem to the point at which its effects continue. Examining these connections locates the decisions through which dependence is maintained and the opportunities through which it might be changed. The consequences remain specific to the purpose of the record and the rights of participation. Normative assessment must examine what the combined arrangements permit or prevent people from doing when they interpret records and contribute to shared accounts of the past.

3 Structural crises and problems of legitimacy in memory governance

Control over digital memory affects people's standing as participants in interpreting the past. Complete preservation and convenient retrieval improve usability, but do not establish the legitimacy of digital memory governance. Normative assessment must also ask whether people can examine an account's grounds, whether different groups can articulate their experiences and whether those exercising control respond to objections. The capacities at issue are practical: checking materials, comparing interpretations, revising understanding and passing knowledge on. The first concern is whether people have the conditions needed to exercise these capacities.

Personal recollection, group memory and historical understanding all depend on preserving, selecting and interpreting records, but their forms of participation and the boundaries of responsibility differ. Individuals have a distinctive standing in accounts of their own lives, although their claims remain subject to relevant facts and the rights of others. Public records entail demands for shared verification and discussion. The common object of analysis here is the control of records on which these practices depend. Specific duties concerning access, revision and response must be assessed in relation to a record's purpose and effects.

First, asymmetries of control can leave interpretive activity persistently subject to others' decisions. Stiegler's account of dispossession of knowledge concerns the separation of subjects from the knowledge involved in their own activity (2010, pp. 45–46). In digital memory, a comparable separation occurs where people receive a system's account but lack the means to examine sources, compare materials or reinterpret an experience. Even someone with relevant knowledge may be unable to amend

a narrative if original materials are inaccessible or supplementary comments never enter subsequent presentations. Restricted interpretation also makes omissions and distortions harder to identify. Well-grounded objections become more difficult to formulate, leaving existing selection and presentation rules less exposed to scrutiny. Dependence can consequently persist without effective participation. Whether a prolonged reduction in these practices also diminishes capacities requires further investigation. Restrictions on the exercise of existing capacities and on the exchange of knowledge already raise a normative problem.

Second, uniform selection and evaluation can narrow the diversity of memory. The significance of an experience depends on its social relationships and historical circumstances. Highly circulated records may inadequately represent a group's life, while fragmentary or rarely discussed experiences can have irreplaceable historical significance. If similar calculable indicators repeatedly determine visibility, fragments that readily generate responses may accumulate further prominence, while less readily quantified experiences recede from view. Homogenisation then concerns the questions and standards through which the past is interpreted as well as the repetition of content. Tertiary retention allows an unlived past to participate in present experience; narrowing the range of records can therefore limit later generations' possibilities of understanding history (Stiegler, 2011). Preserving different experiences keeps established narratives open to supplementation, scrutiny and reinterpretation. Such diversity depends on identifying sources and checking facts. It does not give inaccurate accounts the same evidential standing as reliable records.

The public character of memory also concerns who can participate in shared narration. Records about a group may be widely viewed while the group continues to be described by others, with little room for its members' interpretations. Where testimony is persistently discounted because of identity prejudice, or where unequal participation in shared interpretation leaves some experiences without adequate concepts, people may be wronged in their capacity as knowers (Fricker, 2007). In digital memory, such inequalities can allow a repeatedly displayed image to shape a group's reputation while first-hand accounts fail to alter established views. Publicness thus involves the serious consideration of testimony and the participation of different experiences in developing interpretive resources. Individuals' and groups' accounts of their own lives must, in turn, remain open to relevant materials and the experiences of other witnesses. Shared narration requires this reciprocal scrutiny if different participants are to enter public discussion as contributors to knowledge.

A disconnection between control and responsibility creates a problem of legitimacy. Those who make rules owe justification to the people subject to them, who should be able to participate as equals in testing their acceptability (Forst, 2012). Applied to memory governance, ownership, managerial authority and general consent cannot provide sufficient justification for every subsequent use. Permission to preserve a record differs in its effects from permission to recombine it into an assessment of an individual or group. When platforms and institutions continually determine access, presentation and revision, and those affected cannot readily correct the account through another route, dependence strengthens the grounds for duties of explanation and response. The scope of those duties must reflect

actual decision-making power, users' dependence and the effects on historical understanding, group reputation and self-understanding. For Bovens, accountability involves scrutiny by a forum that can demand reasons, assess conduct and impose consequences (2007, p. 450). Public responsibility in memory governance should accordingly make reasons open to examination, objections answerable and established errors correctable. Privacy, confidentiality and conflicting experiences may justify limits on a response, but the limits themselves require reasons and opportunities for review.

Distributed systems complicate the assignment of responsibility without eliminating particular actors' capacities to control. Supplying records, organising retrieval, generating narratives and determining circulation may fall to different participants. AI-related responsibility gaps arise from technical opacity as well as inadequate incentives and institutional spaces for explanation and the assumption of responsibility (Santoni de Sio and Mecacci, 2021). Assigning all responsibility to the final producer of an output can obscure upstream decisions. Assigning it vaguely to the whole system can conceal actors who could actually change an outcome. A topological perspective locates control in specific relations (Allen, 2016). This makes it possible to ask who made a decision, whether its effects could be anticipated and who could alter the result. The scope of each actor's responsibility should reflect that actor's role and capacity to intervene. Governance must connect these responsibilities so that system complexity does not become a means of avoiding them.

4 Critical reconstruction through negentropic governance and topological intervention

Negentropic governance seeks to organise digital memory in ways that support people's capacities to develop and transmit knowledge. Schrödinger writes, 'What an organism feeds upon is negative entropy' (1992, p. 71). Stiegler brings this question into the relations among knowledge, technics and individuation, examining how people inherit experience through technical supports and develop new understanding through that inheritance (2018). Work on neganthropic institutions also places institutional organisation within this debate (Krzykawski, 2022, p. 102). Social negentropy cannot be measured directly on a thermodynamic scale, nor can a principle of governance be deduced from a biological process. Negentropic governance is proposed here as a normative orientation towards the conditions that allow people to interpret experience, sustain differences and transmit knowledge. Tertiary retention enables experience to outlast an individual life (Stiegler, 2011). Stiegler connects transindividuation with intergenerational and transgenerational practices of attention and knowledge (2018, pp. 220, 227). Learning and invention can reopen established knowledge to differentiation and new possibilities (Bradley, 2022). These arguments support an account of records as conditions for continuing practices of knowledge. A related interpretation of Stiegler connects negentropic knowledge with dialogical transmission and critical thought (Wu, 2023), supporting attention to how inherited knowledge is actively taken up.

The further concern of negentropic governance is whether reliable records can enter continuing practices of knowledge. Verification establishes grounds on which an account can be assessed, but does not settle every question that can be asked of the material. New testimony may alter the significance of a familiar event without disproving its date or location. A later generation may bring questions that earlier classifications did not accommodate. If digital memory is organised solely through established categories and expected responses, verified materials may remain available while opportunities to develop an explanation are restricted. The issue is whether people can bring inherited knowledge into relation with experiences and questions that were not anticipated when the records were organised. This gives the maintenance of interpretive differences a specific role in knowledge development. Different experiences can reveal omissions in a shared account and prompt further inquiry, provided their claims remain open to comparison with relevant records and testimony.

Intergenerational transmission depends on the opportunity to undertake this inquiry. Later users inherit both materials and earlier attempts to make sense of them. To understand why an explanation was persuasive, they need access to its grounds and to the questions it sought to answer. They can then assess which parts remain warranted and which require revision. Transmission thus includes learning how an account was formed and how it can be reconsidered. Negentropic governance evaluates whether technical arrangements sustain that activity alongside the preservation of its results. An archive can satisfy requirements for accurate storage while leaving little room for supplementary testimony or revised classifications. An explanation can be well supported yet presented in ways that conceal the questions still open to investigation. The governance proposed here attends to whether participants can examine such limits and develop further understanding. Source preservation and accountability support this process; opportunities for inquiry and transmission give it a continuing direction.

Realising this orientation requires changes to access rights and authority over presentation and revision. Topological interventions address the specific relations of control through which people can participate in interpreting the past, revising understanding and transmitting experience.

Spatial intervention begins with the connection between preserving records and preserving their interpretive conditions. Provenance, dates, context and revision histories help people assess the nature and relevance of materials. Connections between records also support the comparison of testimony and the development of alternative interpretations. When a generated account uses existing records, its sources should remain traceable so that conclusions can be tested against their grounds. Access rights must fit the purposes of the record. Materials concerning public affairs support claims to verification and discussion, while records of personal experience are also subject to privacy, the scope of consent and others' rights. Who can consult original materials, which restrictions are reviewable and whether alternative channels of access exist all affect the strength of a single organisation's control. More opportunities for verification and alternative access can reduce dependence on one entry point. Preserving connections and different versions also allows records to sustain subsequent inquiry and new understanding.

Temporal intervention protects the time needed to interpret records and respond to accounts. Automated retrieval and immediate generation can improve efficiency, but checking materials, identifying context and reconsidering experience take time. Where an account may significantly affect an individual's reputation or a group's standing, arrangements for circulation and use should leave room for verification. Automated reminders of personal experience should allow users to adjust their frequency, defer engagement or stop particular prompts. In learning and research, repeated reading, comparison and the reorganisation of materials also require time. Corrections must be timely and communicated to the points at which the account is used, limiting the continuing effects of error. Temporal intervention thus serves both the handling of objections and the development of understanding, preventing the speed of processing from crowding out interpretation and judgement.

Intervention at the level of the subject enables those represented to participate in interpreting and revising accounts of their lives. Where generative systems participate in personal recollection and retelling (Smart et al., 2026), the arrangements should accommodate supplementation, refusal and reformulation. Users should be able to distinguish original records from system inferences and request changes to descriptions that misrepresent their experiences. Group memory requires comparable participation. Preserving different witnesses' testimony, recording disagreements and allowing later discoveries to enter the archive help prevent one description from becoming the sole basis for understanding a group. The account of contributory research in Bifurcate brings different forms of knowledge into cooperation and directs digital technologies towards local practices and collaboration (Stiegler and the Internation Collective, 2021, pp. 119–123). Participation can therefore extend to organising materials together, discussing interpretive disagreements and revising inherited accounts, allowing new testimony and questions to enter knowledge formation. Participation must also accommodate knowledge that established procedures overlook; formal opportunities alone do not secure this inclusion (Jasanoff, 2003). A right to participate does not entitle people to suppress every unfavourable record. Evidence, others' experiences and the public interest remain grounds for reciprocal scrutiny. Autonomy in self-narration is sustained through the opportunity to articulate one's experience, answer others' interpretations and accept shared verification.

These interventions depend on organisational responsibility. Actors who hold source information should assist verification; those who determine presentation should handle changes to circulation; and those with authority over revision should ensure that established errors are corrected. Errors extending across several stages also require a clearly assigned coordinating responsibility, so that verification reaches the relevant uses and affected people are informed of progress. Accountability can be assessed by whether grounds are ascertainable, objections receive answers and established errors are corrected. Implementation must reflect the different purposes of archives, social platforms, public cultural institutions and generative systems. Wider access can conflict with privacy, and preservation with requests for deletion. Decisions about restrictions require reasons and opportunities for review.

Correction also raises a tension within historical preservation. An inaccurate account should cease to function as an authoritative description once its error has been established. Yet the earlier account may

retain historical significance as a record of what was asserted, circulated or accepted at a particular time. Replacing it without retaining any account of the change can obscure how the error arose and how it affected later interpretations. Leaving it available without a clear correction can allow the error to continue influencing judgement. Preserving the history of an account and endorsing its claims therefore entail different responsibilities. Governance must make that distinction intelligible to those who encounter the material.

A corrected date, for instance, may provide the appropriate basis for a current historical account, while the earlier version remains relevant to studying how that account developed. Its continuing availability requires an explanation of its status and its relation to the correction. This principle concerns established inaccuracies. Disagreement over the significance of an event may call for further interpretation and competing accounts, with the grounds for each available for scrutiny. Treating interpretive disagreement as an error to be removed would undermine the plurality that negentropic governance seeks to sustain. The appropriate response depends on whether a claim has been disproved, remains uncertain or admits different supported interpretations. Decisions about preservation and correction should make those judgements open to examination. Historical traceability can then support the assessment of changing knowledge while corrected materials provide reliable grounds for its further development.

Conclusion

Bringing tertiary retention and a topological account of power together explains how records' participation in experience becomes a matter of organised authority. A system's contribution to remembering does not by itself establish alienation. The critical issue is whether people can effectively examine and influence how the digital memory on which they depend is organised. This approach makes control identifiable in the relations between preservation, selection and circulation, including cases in which ownership is dispersed. It also gives the critique of knowledge dispossession a more specific object: arrangements that separate the use of inherited records from opportunities to interpret, question and transmit what they contain.

Where control persistently shapes historical understanding, group reputation or self-narration, its justification must be open to those affected. Responsibility attaches to actors' capacity to organise or change the relevant conditions, and requires coordination where decisions span several stages. Negentropic governance extends this concern with accountability to the formation of knowledge. Its contribution is to ask whether reliable records remain available for new questions, different experiences and intergenerational reinterpretation. Topological intervention serves that purpose by changing who can access records, influence their presentation and secure revisions. The tension between correction and historical preservation illustrates the resulting task: errors must be addressed while the formation and revision of accounts remain traceable.

The framework applies chiefly where multiple actors organise digital memory and users remain dependent on the systems involved. Personal memory, public archives and group narratives have different purposes, so the boundaries of access and revision must be assessed separately. Conceptual analysis can identify possible mechanisms that constrain interpretation, but cannot establish that capacities have already declined or substitute for an evaluation of interventions. Further research could follow records from preservation through circulation to revision, comparing the actual opportunities to verify materials, articulate experience and revise understanding under different distributions of authority. Such research could then examine how these conditions relate to the development of capacities.

Declarations

Ethical Approval

This article does not contain any studies with human participants performed by any of the authors. Ethical approval was therefore not required.

Informed Consent

This article does not contain any studies with human participants performed by any of the authors. Informed consent was therefore not required.

Authors and affiliations

Shaopeng Wu[1], Bolin Zhang[2]

[1] School of Marxism, Xi'an Jiaotong University, Xi'an, China

[2] Shanghai Academy of Fine Arts, Shanghai University, Shanghai, China

Shaopeng Wu (corresponding author), Email: wspengacademic@163.com

Author Contribution

Shaopeng Wu led the conceptual development of the article and the drafting of the manuscript. Bolin Zhang collected relevant literature, contributed to the English translation and language editing, and proofread the manuscript.

Data Availability

Data sharing is not applicable to this research as no data were generated or analysed.

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