

# ALGORITHMIC MEMORY: HOW RECOMMENDATION SYSTEMS RESHAPE COLLECTIVE NARRATIVES OF CULTURE

Yasser Sedrati <sup>1</sup> 

<sup>1</sup> Mohamed Khider University, Biskra, Algeria  
[yasser.sedrati@univ-biskra.dz](mailto:yasser.sedrati@univ-biskra.dz)

**Abstract:** This article examines how algorithmically driven recommendation systems on platforms such as YouTube, TikTok, and Facebook reshape the dynamics of cultural memory and collective narrative formation in contemporary digital environments. Building on the literature related to memory studies and specifically the concept of “connective turn” which was proposed by Andrew Hoskins in 2011, the current study emphasizes the notion of continuous circulative process that is based in its visibility nuances on digital platforms that prioritize user engagement, on the one hand, data collection and content ranking on the other. Within these circumstances, narratives’ transmission is remotely bound to certain systems that amplify or silence different voices of specific histories, not by prohibition but rather by limiting their visibility or lowering their ranking. As a result, they fail to achieve widespread dissemination. These dynamics parallelize the Michel-Rolph Trouillot’s observation of silencing history in 1995. Following the latter, this paper antagonizes the dual treatment of Palestine and Ukraine crises in global media, and also Algerian traditional pop culture, and how it is remixed and circulated online. The argument of the researcher triangulates three primary modes of algorithms in influencing memory: amplification and erasure, commodification and datafication, and the reconfiguration of identity and belonging. Joined together, these modes will function not as mere transparent tools that organized information, but rather these recommendation systems contribute in shaping collective memory, engendering mutative forms of algorithmic silence that impact what we remember, forget, and what is politically acknowledged in our digitally mediated societies.

**Keywords:** Algorithmic memory; recommendation systems; cultural narratives; digital platforms, visibility.

## How to cite this article:

Sedrati, Y. (2026). Algorithmic Memory: How Recommendation Systems Reshape Collective Narratives of Culture. *Journal of Studies in Language, Culture, and Society (JSLCS)*, 9(1), 2026. pp. 12-26.

---

<sup>1</sup> Corresponding author : Yasser Sedrati ORCID ID : <https://orcid.org/0009-0004-3346-0422>

## 1. Introduction

Because digital platforms have emerged as essential infrastructures through which modern societies record, circulate, and interpret the past, social media feeds, search engines and recommendation systems started to gain influence on historical narratives through promoting visibility or marginalization within public spheres. In this environment, the traditional institutions like archives, museums, or national historiographies are no longer functional in this digital amalgam, instead memory, now, is increasingly mediated by algorithmic systems that rank, filter, and distribute information; across global digital networks. Consequently, the cognitive processes of remembering and forgetting are becoming technologically dictated and shaped; and operated by private platform companies.

For Memory Studies scholars, collective memory is neither neutral nor spontaneous phenomenon, instead it is institutionally, culturally, and politically processed; and this can be remarked in early foundational studies which conceptualized memory as being embedded within symbolic frameworks, cultural institutions, and commemorative sites that narrate societies' past (Assmann, 2011; Nora, 1989). In a similar vein, Trouillot (1995) elaborated that historical narratives are shaped by power relations that determine which events are acknowledged in the historical record and which are systematically omitted by silence that arise at different stages in the process of the historical production—from the creation of sources to the development of historical narratives; which indicate that the archive itself serves a site wherein power influence the conditions of historical visibility.

While these viewpoints play major role, the rise of communication that is digitally mediated has profoundly altered the conditions under which memory is disseminated. Recent scholarship has drawn attention to the ways digital media are reshaping mnemonic practices and infrastructures; it is what Hoskins (2018) conceptualizes as the “connective turn” in memory, emphasizing how digital networks allow memory narratives to circulate rapidly, interact with one another, and gain wider visibility across online environments. Likewise, van Dijck (2007) emphasizes that digital platforms play a central role in the mediation of cultural memory; which is done through algorithmically structured databases and interfaces. Hence, these platforms organize the ways in which cultural memories are stored and later retrieved; and imply that the platforms' technological architecture shape how collective memory is produced, circulated, and accessed.

Although interest in digital memory has grown considerably, much of the existing scholarship is more focused on user practices, participatory culture, and digital archives. By comparison, far less emphasis has been on the question of how algorithms themselves as active agents shape what becomes visible—or invisible—within contemporary mnemonic environments. Even so, algorithms strongly influence what content users are exposed to—shaping which results appear in searches; which posts surface in social media feeds, and which videos are recommended to viewers. Through complex ranking systems designed to keep users engaged and support platform profitability, these mechanisms increasingly mediate how historical narratives circulate in digital spaces.

The broader political and cultural ramifications of these systems were underscored by different critical scholarship: Noble (2018), for instance, demonstrated the act of amplification and exacerbation of search engines ranking processes, and how they perpetuate the existing social inequalities. Crawford (2021), in his turn, echoes the argument that artificial intelligence systems inculcate social values, economic interests, and institutional power within their computational frameworks. Taken together and from this standpoint, the agency of algorithmic systems is centralized on definitive role in shaping the conditions under which knowledge is rendered visible and authoritative; and this is what Amore (2020) posited that

algorithmic decision-making represents a form of modern governance, wherein computational systems orchestrate practices of classification, prediction, and visibility through digital landscapes

Taking into consideration the aforementioned, the reciprocal relationship between algorithmic processing governance and memory studies is, to certain extent, underdeveloped, and this is due to the historical narratives which traditionally have been shaped by different factors such as archives, historiography, and media institutions. In addition to the latter, the emerging contemporary digital environment supposes an extra layer that mediates the agency of visibility, circulation, and the amount of memory narratives continuity. Algorithms, in this sense, influence which versions of the past gain prominence online; often shaping historical visibility in ways that echo—and at times deepen—the silencing described by Trouillot (1995). For that the process of silencing, now, is not operating through the production of archives or historical narratives, it assumes the regulative capacity that shape and regulate the economy of attention on digital platforms.

Drawing on theories of Cultural Memory and historical silencing, this article assumes a framework that is conceptual in anatomizing algorithms; and asks to what extent they are perceived as infrastructures of power. It argues that algorithmic systems shape how memory narratives become visible and circulate within digital environments, and also how digital platforms mold the prominence of certain events, conflicts, cultural expressions within global digital discourse, and on which basis they render them marginal or ephemeral state.

The article follows a qualitative conceptually based approach and draws on documentary case studies from contemporary digital environments; which pertain to the argument of how algorithmic visibility, recommendation systems, and platform moderation practices shape the circulation of political and cultural memory narratives. Instead of relying on large scale empirical measurement, the analysis focuses on clarifying how algorithmic infrastructures shape mnemonic process within platform societies.

The article proceeds in four stages. The first section reviews key theoretical perspectives from memory studies and scholarship on algorithmic governance in order to develop an interdisciplinary conceptual framework. The second section aligns both the methodological approach and the analysis' sources, while the third section situates an exploration from political and cultural circulation instances; illustrating how algorithmic systems structure visibility and silencing within digital memory environments. In parallel, the final section amplifies the broader implications for understanding the memory and its politics in the digital age.

The article contributes to the ongoing debates on digital memory and platform power by positioning algorithms within the broader politics of historical production. And on the other hand, it further suggests that online visibility that online visibility is governed more by infrastructures that form part of the contemporary apparatus through which collective memory is produced, circulated, and contested by different societies.

## **2.Theoretical Framework and Literature Review**

### *2.1 Cultural Memory and Historical Silencing*

Because of the societal nature of collective memory, memory scholarship emphasized the idea of its socially constructed patterns. The latter which are embedded within these institutional and symbolic amalgam that shape the way different societies narrate historical events. Pierre Nora (1989) introduced the concept *lieux de mémoire* wherein she accentuated the institutionalization process of monuments, archives, and public commemorative practices.

Concurrently, particular narratives about the past are stabilized through these sites; which also reflect the broader political and cultural dynamics and act as anchors of cultural memory.

In the same context, Jan Assmann (2011) contrasted the binary of cultural memory and communicative one. The latter which is more circulated within the daily interpersonal reciprocity, whereas; the former is more institutionalized through texts, rituals, and symbolic representations. In this sense, durable media align the condition through which societies maintain selected narratives across generations. Accordingly, collective memory extends beyond the mere accumulation of historical information; it emerges as a process that is structured through which communities regulate what should be preserved and transmitted over time.

The relationship between memory and power forms a central concern in this body of scholarship. It is what Trouillot (1995) demonstrated when he argued that historical narratives are built through processes of exclusion and silencing; therewith operate at several stages in the production of historical knowledge. Silences, Trouillot argues, appear at multiple markers in the production of historical knowledge—from the narratives’ construction and archives’ formation; to the construction of narratives and the subsequent interpretation of events. The archive, therefore; emerges not as neutral repository, but as a site power helps shape the conditions of historical visibility. Scholars writing after these early interventions have examined how media technologies and cultural institutions participate in shaping the production and circulation of historical narratives (Erll, 2011; Rigney, 2018). Within this framework, collective memory can be understood as emerging from the interplay between cultural institutions, media infrastructures, and political power.

## *2.2 Digital Mediation and the Transformation of Memory*

Media exhibited radical vitality in transforming the circulation of memory and its infrastructures, and this has lead scholars to note the newly enabled forms of participation, circulation, and archival storage by digital communication technologies through the alteration of remembering and forgetting dynamics. The transformation brought about by digital media is captured by Andrew Hoskins (2018) in his suggested notion the “connective turn” in memory. In this account; digital networks permit memory narratives to diffuse across global communication systems; where they are circulated, recombined, and reinterpreted through continuous online interaction. Social media activity, digital archives, and networked publics constantly reshape memory; which under these conditions, can no longer to be perceived as dynamic.

the storage and accessibility of cultural memory has been increasingly conditioned by the Digital platforms that operate as infrastructures; through which media is conceptualized, by José van Dijck (2007), as systems of mediated memory, therewith databases, interfaces, and search mechanisms In this regard, conceptualizes digital media as systems of mediated memory, where databases, interfaces, and search mechanisms arrange how historical information is retrieved and circulated. To safeguard the accessibility of memory to users, digital platforms configure, from biased stand, the infrastructure conditions; where the architectures of platform shape not only historical narratives; but also the way they are encountered and interpreted.

Recent debates has broadened this discussion which was termed: platformization; the process through which digital infrastructure inform the way culture circulate and communicate, and in the same context; Work on the platform society shows that digital platforms mediate social, economic, and cultural practices through systems organized by algorithms (Poell et al., 2022). Concurrently, the circulation of memory narratives online

depends not only on user participation; but also on the technological infrastructures that rank, recommend, and distribute information.

### *2.3 Algorithmic Governance and the Politics of Visibility*

Understanding contemporary digital communication increasingly requires attention to algorithmic media; in the sense that algorithmic systems mold, as Taina Bucher (2018) argued, user experiences and determine availability of content on feeds and recommendation systems. By introducing automated processes of selection, these alignments shape the circulation of information and influence which narratives receive public attention.

The patterns of visibility within platform economies were relatively addressed in recent scholarship about algorithms' agency; Tarleton Gillespie (2022) draws attention to the aspect moderating and ranking online content, in addition to Kelly Cotter (2023) who demonstrates the idea of visibility through engagement-driven logics which elevate some forms of content over others. Viewed from this perspective, it can be induced that algorithms as infrastructural mechanisms allocate the attention flows across digital communication systems.

The political implications of algorithmic governance occupied central space within recent academia. Safiya Umoja Noble (2018) contested the emergent structural inequalities often reproduced by search engine; elevating certain forms of content while marginalizing others. The latter which supports Kate Crawford's (2021) claim about the role of artificial intelligence systems in influencing how information is collected, processed, and circulated in the economic and political fabric. As a result, institutional and commercial priorities are surfaced to overcome the production and circulation of knowledge in digital environments; this is what Louis Amoore (2020) conceptualized, wherein he defended that algorithms work more as instruments of governance that classify, predict, and decide. In this context, algorithmic systems surpass the mere technicality, operating information's visibility and actionability of contemporary societies

### *2.4 Toward a Framework of Algorithmic Memory*

Fusing Memory Studies and 'algorithmic governance' enlightens the quest for understanding mnemonic infrastructures. On the one hand, Cultural Memory theory emphasizes the construction of the narrative about the past by different societies, whereas scholarship on digital platforms demonstrate the extent to which algorithmic systems shape patterns of visibility; within networked communication environments. Viewed together; algorithms, based on these perspectives; can be perceived as evolving infrastructures which are linked to the formation of collective memory. Within digital platforms, recommendation systems, ranking algorithms, and content moderation practices shape how attention is directed; affecting which narrative circulate widely and which remain marginal. Thus, the articulation of platform architecture is, now, more concentrated on the dynamics of remembrance and forgetting in networked publics. (Reading, 2023; Hoskins & O'Loughlin, 2023).

Despite the increasing momentum between Digital Memory and Algorithmic Governance; the convergence of these two domains is still relatively underexplored. While memory studies was historically centered on archives, historiography, and media institutions as essential sites of mnemonic production (Assmann, 2011; Erll, 2011; Nora, 1989). Studies of algorithmic systems, meanwhile; have to focus on platform governance, algorithmic bias, and data infrastructures (Amoore, 2020; Crawford, 2021; Noble, 2018). Recent Studies in Digital Memory have recently begun to consider the mediation practices which influence the faculty remembrance and forgetting ((Hoskins & O'Loughlin, 2023; Reading, 2023). Much less attention, however; has been addressed to the specific mechanisms through which algorithmic ranking, recommendation, and moderation systems influencing mnemonic content.

To address this gap, the article foregrounds the convergence of Cultural Memory and Algorithmic Governance to conceptualize algorithms as infrastructures of mnemonic power. The primary contribution of this work is building on the work of Michel-Rolph Trouillot (1995), it extends the concept of historical silencing to modern platform societies; positing that algorithmic systems increasingly influence historical narratives' visibility; amplification, or silencing within digital spheres.

### 3. Methodology

This study adopts a qualitative and conceptually oriented research design. Since it is less concerned with performing extensive empirical measurements; the article is more focused on elucidating the patterns through which algorithmic infrastructures are influencing how digital contexts of collective memory are disseminated and visibilized.

The methodological aim is therefore interpretive rather than statistical. In simple terms, the study focuses on mechanisms. It poses the idea of how mnemonic visibility is organized by algorithmic systems, and how new forms of historical silencing is generated in digital communication spaces. In order to address these concerns, the current paper merge conceptual analysis unto documentary case illustrations sourced from contemporary digital media contexts.

. Conceptual analysis is central to the study because the relationship between algorithmic infrastructures and collective memory remains theoretically underdeveloped. Accordingly, the article brings together insights from Cultural Memory theory and research on algorithmic governance in order to construct an analytical framework capable of examining these dynamics. This approach allows the discussion to move between theoretical reflection and concrete examples. The objective, divorced from quantitative sense, is more focused on the circulation of memory narratives, and how they are affected by algorithmic systems.

Alongside its conceptual analysis, the study sheds light on functionality of algorithmic visibility through the utilization of documentary sources. These materials encompass reports published by digital rights organizations, investigative journalism concerning platform governance, in addition to academic studies examining recommendation systems and content moderation. Given the closed and commercially controlled nature of platform technologies, the infrastructures that orchestrate algorithmic visibility are often difficult to observe directly. Documentary materials, therefore; establish an important foundation through which these systems function, and examining such mechanisms presents a practical approach to investigate how algorithmic processes influence the circulation of information across digital communication contexts.

Given the Illustrative approach of this work, the chosen examples serve not as comprehensive empirical data corpora, nevertheless; they are analytical gateways that shed light on wider trends in the interplay between algorithms and collective memory. These instances anatomizes the attention economy; through which memory narratives are disseminated online.

The practicality of the used methodology is particularly recursive in the examination of algorithmic systems; as these infrastructures are determined by a level of complex and computational processes. Because scholars seldom possess direct access to the platform algorithms' internal functioning. Nonetheless, these systems impacts are visualized through content distribution, dynamics of visibility, and documented practices of different platform. By examining these patterns alongside existing theoretical frameworks, the study seeks to

illuminate how algorithmic infrastructures participate in shaping the contemporary politics of memory.

To gear this analytical approach, three intersected markers trace the mnemonic visibility and digital environments' convergence. On the one hand, the role of algorithmic ranking and recommendation systems in circumscribing how the information gain visibility within platform mediative layers is examined. On the other hand, platforms' biases—namely moderation alignments, platform governance mechanisms— which restructure how memory narratives circulate and persist, in addition to the attention and marginalization dynamics. Based on that, this research will examine algorithmic systems' participation in making the contemporary politics of memory.

#### **4. Analysis and Discussion**

Within digital contexts, the progressive recurrence of these processes—the transformation and preservation of narratives about the past— is shaped by algorithmic systems inside platforms ecosystems. The latter's emergent mechanisms of ranking, recommendation, and engagement metrics realign visibility, peculiarize specific forms of engagement, and affect narratives' circulation across networked publics.

To investigate the influence of algorithmic infrastructures on contemporary memory practices, the concept of 'historical silencing' by Trouillot will be amplified. Within this discussion, digital platforms are understood socio-technical systems that regulate attention and direct visibility of cultural narratives rather than as neutral technological environments.

Three interconnected mechanisms are centralized in this section wherein algorithmic systems contribute in constructing digital memory. Initially, it begins by examining how ranking algorithms create dynamics of amplification and erasure that affect which narratives circulate widely and which remain at the margins. The analysis, then, unfolds the processes of platforms economies through which they transform cultural memory into commodified data flows, utilizing datafication logics and engagement optimization. Finally, it scrutinizes how these dynamics alter the interplay between identity formation and community belonging, in addition to collective memory within networked digital public spheres. Holistically, as already mentioned, these mechanisms are never bereft of intersection with platforms architecture; wherein visibility, patterns of social interaction, and economic incentives are naturally embedded.

##### *4.1 Amplification and Erasure*

On platforms like Youtube, Tiktok, and Instagram, algorithms systems play pivotal role in determining which narratives receive sustained visibility and which gradually recede from public attention. From the perspective of cultural of cultural memory, this suggests that the digital traces of societal communal commemoration are progressively shaped by algorithmic mechanisms that direct attention and regulate patterns of engagement. Narratives about the past increasingly circulate through social media platforms; where they are debated, reshaped, and reinterpreted through everyday user interactions such as likes, shares, comments, and viewing duration. Under these conditions, content that is provocative of strong emotional responses or rapid encouraging of rapid engagement likely to disseminate widely across platform networks. On another level, narratives that elicit minimal engagement often remain largely unnoticed; albeit, their pertinence to significant historical milestones. Through these dynamics, algorithmic systems structure a hierarchy of digital visibility, where specific narratives are boosted, whereas others are suppressed.

The emerging mechanisms of these dynamics mark fundamental transformation in the formation of cultural memory of the digital age. The traditional institution of documentation and historiography mutated new forms of collective memory through communication technology which is governed by algorithmic selection. In this sense, remembrance is prone to regulated visibility; wherein the over-presence of widely circulated narratives is more likely to become embedded within digital culture, whereas peripheral discourses are ever wiped from public awareness.

Moments of Geopolitical conflicts often reveal the political ramifications of algorithmic amplification; as digital platforms become central practical sites for the circulation of images, testimonies, and competing interpretations of different events. In the settings, social media feeds and recommendation systems do more than simply inform; nevertheless, they influence how conflicts are represented, interpreted, and ultimately remembered within global communication networks.

The Ukrainian and the Gaza war is a vital example in the contrasting patterns of digital visibility regulative policies. Following Russia's invasion of Ukraine in 2022, images of soldiers' bravery and civilian resistance; which subsequently structured international solidarity, were circulating at a rapid pace across social media platforms and global news networks. Appearing prominently within recommendation feeds, trending hashtags, an algorithmically curated news streams; these videos, personal testimonies, and visual documentation of the conflict disseminated swiftly through digital environments. As these patterns wove visibility, they helped consolidate a widely recognizable digital narratives regarding the war.

A different pattern of visibility emerged during the intensified violence in Gaza Strip; especially during the escalations of hostilities in 2023 and 2024. In these conditions, Palestinian narratives frequently were shattered within fragile fabric of circulation across digital platforms. Different journalistic reports and digital rights organizations documented cases in which Palestinian content encountered various constraints with moderation and automated filtering policies, in addition to broader practices that govern platforms. The political, technological, and institutional factors play a major role in the emergence of such dynamics, for that, they, nonetheless; demonstrate the capacity of algorithmic infrastructure to direct how narratives circulate within digital communication environments. Viewed comparatively, the value of this analogy lies less in assigning intentional or unintentional bias to particular technological corpora than in drawing attention to the uneven patterns which digital infrastructure generate to specific visibility. Consequently, amplified narratives that are widely circulated are privileged within certain mediated environments, while marginalized counterparts are precariously disadvantaged. In this context, digital memory comprising global events is algorithmically curated to achieve either privileged or disadvantaged circulation in the quest of online engagement and visibility.

Structured on Trouillot's (1995) paradigm, these dynamics perpetuate the broader issue of historical silencing. It is because of this pervasive nature of silence which oxidizes the historical record of narratives at multiple stages through which history is produced, algorithmic infrastructures generate new digital landscapes at which silence may be molded. Algorithmic systems rarely erase narratives entirely. More often, they subtly customize the circulation visibility. Under such dynamics, algorithmic memory operates less through direct censorship than through forms of selective amplifications. In this sense, narratives that correspond with the engagement logics are simultaneously visibilized in contrast to the frequently marginalized ones. Over time, such dynamics will give rise to uneven digital memory borne out of such asymmetries in the visibility of the historical experiences; within platform architectures, engagement metrics, and broader geopolitical contexts. Based on that,

understanding these dynamics is essential to the comprehension of the basic digital landscape through which algorithmic infrastructures shape how events are remembered, interpreted, and integrated in the collective memory.

#### *4.2 Commodification and Datafication*

Amplification and erasure are more related to the process of visibility by algorithmic systems, whereas commodification and erasure underlie the operation of these dynamics under their broader structural conditions. Meantime, the user's activity on digital platforms is technically, within economic models, converted into data and monetized attention through targeted advertising and predictive analytics. And hence, under these conditions, the circulation of cultural memory is logically economized within the platforms infrastructures.

The circulation of content such as personal narratives, historical references, or cultural traditions is never structured within historical or cultural significance solely; nevertheless, it is continuously framed to capture engagement and produce data by these systems. Every like, share, view time, and interaction is a segments in the formation of such structure where they are transformed into data points that feed algorithmic recommendation systems. Digital media scholars label this transformation as datafication; which is the systematic conversion of the individual's social activity into quantifiable, analyzed and predicted information that is ultimately monetized. Within the different ecosystems of platforms, stories with wider engagement metrics are rendered more visibility in the circulation of cultural narratives, whereas the incompatible with the engagement logic are simultaneously marginalized.

This dynamic aligns with what Sushana Zuboff describes as Surveillance Capitalism; an economic model that simulates the behavior of the user as a resource for predictive data markets. Within such systems, the advertising revenue and behavioral prediction encapsulate the circulation of memories and historical narratives to insure the monetization aspect of such infrastructures. In the same vein, even the once upon time acts of memory reverberation that pertained to cultural institutions or community traditions are never processed in isolation from the economic incentives of the market. It is the commodification drive that does not allow the contemporary content—may it be historical narratives for example—to circulate without being shaped or formatted in its representation within digital spaces. The platform logics—such as short videos, viral hashtags, or emotionally appealing images which are audience targeted—are determining factors in governing collective memories alignment. These formats tend to punctuate on immediacy and intense emotional drive; albeit, historically reductive or contextually less complex. Within such contexts, engagement dynamics are pivotal factors that connect cultural narratives of the past to the platform organizational activity. Evocative and sometimes emotionally provocative stories, sensitively appealing personal testimonies, or expressions of collective identity tend to generate higher level of interaction and, as a result, gain greater visibility within recommendation systems.

Such dynamics give rise to underlying tension within digital cultures; in the sense that they provide space for communities to resonate their cultural histories, but at the same time; the already embedded economic infrastructures permeate such representations or identical expressions, and the way their narratives are structured, circulated, and consumed. The algorithmic visibility, then, is conditioned by this data-driven business model that sustain platform ecosystems. Hence, commodification and datafication are foundational components in the mediation process of collective memory. As a result, it is what Nick Srnicek (2017) argued about when he concluded that cultural narratives, in this sense, circulating within these infrastructures become networked within systems directed toward data extraction and engagement optimization.

Grasping how cultural memory becomes commodified and datafied is crucial for examining the wider dynamics of algorithmic memory. The emergence of the latter mutated different mechanisms through which the past is narrated, not solely in the traditional sense by cultural transmission processes or historical documentation; but through socio-technical frameworks where economic incentives, algorithmic structures, and patterns of user engagement collaboratively shape how historical experiences are represented and remembered in digital societies.

### *4.3 Reconfiguration of Identity and Belonging*

Algorithmic infrastructures influence not only the visibility and economic circulation of narratives; but also the process through which the construction of those identities and communities take action and place within digital environments. Cultural memory has, since antiquity, been parallelizing the formation of collective identities; wherein communities have been interpreting their histories and articulating their social belonging through shared narratives. In contemporary digital societies, algorithmic systems regulate communication infrastructures wherein these process unfold; especially on social platform where historical narratives are more circulated by concerned individuals on unprecedented scale. Users help reinterpret cultural memory within networked digital publics through posts, hashtags, images and personal testimonies. Thanks to such participation of collective storytelling, communities open new horizons to different versions of national identity and historical heritage. Nevertheless, the dissemination of such narrative will always be appended with algorithmic recommendations systems that direct and shape the flow of information across platform networks.

Content that is visible in algorithmic feeds is tailored based on user behaviour, engagement history, and networks connections. Under these conditions, individuals are exposed to narratives which are more likely to correspond with their preferences and social affiliations. Over time, such patterns of exposure will reinforce shared identities within specific digital communities; as user repeatedly engage with history interpretations and culture belonging that resonate with their social environments. In this context, a mutative pattern which can be termed as algorithmically structured publics will emerge. The latter is groups whose internal narratives and shared memories are influenced by algorithmic visibility.

Research on digital media have underscored the significance of these dynamics in constructing the contemporary identity of different societies. José van Dijk (2013) argued in her analysis of digital platforms that cultural expressions, identity practices, and social interactions are operatively processing the communal dynamics which characterize the natural course of societal progression in such infrastructural environments. The latter dictates continuous interactions with algorithmic systems which manage information stream and influence the visibility of cultural narratives. In the same vain, the historical narratives' interpretation and perception is diluted within informational segmentation which can be resulted from these algorithmic infrastructures; in the sense that content me be disseminated through personalized recommendation systems; wherein different groups of users may be exposed to different representations of the same events. These dynamics, as a consequence, will produce a mosaic of public memory that is fragmentally deconstructed; wherein seldom antagonistic narratives about the past will circulate and, in worse cases, collide on one or separate digital networks.

This phenomenon protruded farther implications that extend beyond inquiry of information exposure. In her study of algorithmic power, Taina Bucher (2018) signified the potential which underlies the algorithms structure; wherein users frequently perceive the conditions of participation far beyond the technical aspects of these systems, but more

emphatically dependent upon such algorithmic dynamics of visibility, recognition, and influence which mold the individual online production, content sharing, and identity and collective memory narration. The connection between memory and identity in digital environments, thus, becomes progressively entangled with algorithmic structures. In this sense, different societies may approach the historical narratives through strategic methods that insure correspondence with platform logics to gain maximum visibility with the algorithmically curated feeds. In this process, hashtags, viral campaigns, and symbolic images operate as tools through which collective identities are expressed and circulated across digital networks. Although such practices can voice the voiceless by expanding their visibility, they also situate identity expression and formation within different type coloniality; wherein such environments are shaped by platform governance and recommendation systems.

the prospects of the contemporary digital landscape entail the comprehension of memory politics within. In this sense, the communities' circulation of cultural narratives on digital platform is in continuous movement of remembering the past and situating themselves within broader historical and political contexts, yet they are always shaped by the algorithmic infrastructures. In this sense, algorithmic memory extends far beyond visibilizing historical narratives to contributing as well to the reconfiguration of different identities and communities through which those narratives comes to acquire meaning.

The dynamics explored in this section point to a broader transformation in the conditions that surround the contemporary digital societies in the circulation and production of collective memory. On the one hand, the process of Amplification and Erasure underlies how the visibility of historical narratives are restructured by recommendation systems, whereas the process of Commodification and Datafication is centered on the interpretation and reincarnation of the users' behavior through the loophole of economization logic. On the other hand, the mechanism of Identity and Belonging revolves around the role of algorithmically curated communication environment in circumscribing the narration of past by different communities and how they encounter, interpret, and eventually internalize these narratives about their collective memory. Taken together, these mechanisms constellate to form the platform ecosystems wherein digital memory landscape is visibilized, economized, and interactively intersect. Therefore, to understand the algorithmic memory, is to comprehend the broader socio-technical infrastructure that borderline how the contemporary societies remember, interpret, and negotiate their past.

## **5. Conclusion**

The analysis conducted in this article examined the emergent influence of algorithmic infrastructures on how collective memory in contemporary digital environments is produced and circulated. As social media platform increasingly becoming pivotal spaces for the dissemination of historical narratives, the ways by which societies remember the past are no longer exclusively mediated by traditional institutions like archives, museums, or news organizations. Rather, they are continuously becoming integrated into social-technical systems that are predicated on recommendation algorithms, data extraction infrastructures, and platform economies.

The article, building in Trouillot's argumentation, has demonstrated that historical silence is never divorced from the mechanisms of algorithmic systems in the process of producing historical narratives. The paper insisted that censorship is never explicitly used by the algorithmic infrastructures, but a processes of selective visibility is integrated. In this sense, different narratives which conform to the engagements dynamics are mechanically amplified unlike others remain marginalized within the algorithmically curated communication networks.

The analysis has examined three interconnected mechanisms that govern the functioning of algorithmic memory. On the one hand, amplification and erasure demonstrate how historical narratives are visibilized by recommendation systems on digital platforms. In addition, how the monetizable data flows are entangling the circulation of cultural memory through the processes of commodification and datafication. And on the other hand, through the reconfiguration of identity and belonging dynamics, how the past narrative of different communities' collective identities are interpreted by such algorithmically structured communication environments.

Several broader implications emerge from the findings of this study. Theoretically, they underscore the necessity for cultural memory studies to more systematically engage with socio-technical infrastructures that facilitate modern communication. Memory is now produced not only through the traditional preservation institutions or historiographical procedure; but also through algorithmically information flows that shape the attention of commonality. Thus, comprehending the processing of these infrastructures is pivotal in circumscribing the formation and the circulation of historical narratives in digital societies.

The increasing role of algorithmic systems in shaping public narrative bears a certain controversy in its societal implications, specifically in relation to the notions of visibility, representation, and the politics of remembrance. As digital platforms evolve unto central sites for historical narratives' circulation; the nature of the algorithmic governance impose certain guidelines that appropriate or abrogate targeted experience within global communication networks. Hence, comprehending the intricacies of algorithmic memory is critical for understanding how power operates in the contemporary digital media landscape.

Future research could further deconstruct the algorithmic infrastructure by comprehending the mechanisms that shadow the geopolitical asymmetries, platform governance interest groups, and user practices in moulding narratives about history. Understanding these dynamics through the lens of algorithmic decoloniality will establish a paradigm of contestation that revisit different hierarchies of knowledge, visibility, and representations within global system of communication. Such investigation could instil enduring negotiations of collective memory construction by such infrastructures, and decolonize the epistemic authority of algorithms logic.

## References

- Agamben, G. (2005). *State of exception* (K. Attell, Trans.). University of Chicago Press.
- Amnesty International. (2024). *Digital apartheid: How social media platforms silence Palestine*. Amnesty International Report. <https://www.amnesty.org>
- Amoore, L. (2020). *Cloud ethics: Algorithms and the attributes of ourselves and others*. Duke University Press.
- Assmann, A. (2011). *Cultural memory and Western civilization: Functions, media, archives*. Cambridge University Press.
- Bail, C. A., Argyle, L. P., Brown, T. W., Bumpus, J. P., Chen, H., Hunzaker, M. F., Lee, J., Mann, M., Merhout, F., & Volfovsky, A. (2018). Exposure to opposing views on social media can increase political polarization. *Proceedings of the National Academy of Sciences*, 115(37), 9216–9221. <https://doi.org/10.1073/pnas.1804840115>
- Barad, K. (2007). *Meeting the universe halfway: Quantum physics and the entanglement of matter and meaning*. Duke University Press.

- Bennett, J. (2010). *Vibrant matter: A political ecology of things*. Duke University Press.
- Berlant, L. (2011). *Cruel optimism*. Duke University Press.
- Boyd, D., & Crawford, K. (2012). Critical questions for big data. *Information, Communication & Society*, 15(5), 662–679. <https://doi.org/10.1080/1369118X.2012.678878>
- Braidotti, R. (2013). *The posthuman*. Polity.
- Bratton, B. H. (2015). *The stack: On software and sovereignty*. MIT Press.
- Bucher, T. (2018). *If... then: Algorithmic power and politics*. Oxford University Press.
- Chun, W. H. K. (2011). *Programmed visions: Software and memory*. MIT Press.
- Chun, W. H. K. (2016). *Updating to remain the same: Habitual new media*. MIT Press.
- Cinelli, M., Quattrocioni, W., Galeazzi, A., Valensise, C. M., Brugnoli, E., Schmidt, A. L., Zola, P., Zollo, F., & Scala, A. (2020). The COVID-19 social media infodemic. *Scientific Reports*, 10(1), 16598. <https://doi.org/10.1038/s41598-020-73510-5>
- Couldry, N., & Mejias, U. A. (2019). *The costs of connection: How data is colonizing human life and appropriating it for capitalism*. Stanford University Press.
- Crawford, K., & Paglen, T. (2019). Excavating AI: The politics of images in machine learning training sets. *Excavating AI*. <https://excavating.ai>
- Crawford, K. (2021). *Atlas of AI: Power, politics, and the planetary costs of artificial intelligence*. Yale University Press.
- Cotter, K. (2023). *Algorithms and the new media ecology: Platform power and the visibility of cultural content*. Oxford University Press.
- Dean, J. (2009). *Democracy and other neoliberal fantasies: Communicative capitalism and left politics*. Duke University Press.
- Divya, S. B. (2021). *Machinehood*. Gallery/Saga Press.
- Elish, M. C. (2016). Moral crumple zones: Cautionary tales in human–robot interaction. *Engaging Science, Technology, and Society*, 2, 40–60. <https://doi.org/10.17351/ests2016.006>
- Erl, A. (2011). *Memory in culture* (S. B. Young, Trans.). Palgrave Macmillan.
- Ferrando, F. (2019). *Philosophical posthumanism*. Bloomsbury Academic.
- Erl, A. (2011). *Memory in culture*. Palgrave Macmillan.
- European Parliament. (2022). *Digital Services Act*. <https://digital-strategy.ec.europa.eu/en/policies/digital-services-act>
- Foucault, M. (1972). *The archaeology of knowledge* (A. M. Sheridan Smith, Trans.). Pantheon.
- Fuchs, C. (2014). *Social media: A critical introduction*. Sage.
- Gillespie, T. (2018). *Custodians of the internet: Platforms, content moderation, and the hidden decisions that shape social media*. Yale University Press

- Gillespie, T. (2022). *Custodians of the internet: Platforms, content moderation, and the hidden decisions that shape social media*. Yale University Press.
- Haraway, D. (1991). *Simians, cyborgs, and women: The reinvention of nature*. Routledge.
- Haroon, M., Wojcieszak, M., Chhabra, A., Liu, X., Mohapatra, P., & Shafiq, Z. (2022). *Auditing YouTube's recommendation system for ideologically congenial, extreme, and problematic recommendations*. Proceedings of the 2022 ACM Conference on Fairness, Accountability, and Transparency (FAccT '22), 1–13. <https://doi.org/10.1145/3531146.3533151>
- Hayles, N. K. (1999). *How we became posthuman: Virtual bodies in cybernetics, literature, and informatics*. University of Chicago Press.
- Hoskins, A. (2011). Media, memory, metaphor: Remembering and the connective turn. *Parallax*, 17(4), 19–31. <https://doi.org/10.1080/13534645.2011.605573>
- Hoskins, A. (2018). *Digital memory studies: Media pasts in transition*. Routledge.
- Hoskins, A., & O'Loughlin, B. (2023). *The new memory war: How the digital age is transforming remembrance and conflict*. Polity Press.
- Human Rights Watch. (2023, December 20). *Meta: Systemic censorship of Palestine content*. <https://www.hrw.org/news/2023/12/20/meta-systemic-censorship-palestine-content>
- Iovino, S., & Oppermann, S. (Eds.). (2014). *Material ecocriticism*. Indiana University Press.
- Jackson, Z. I. (2020). *Becoming human: Matter and meaning in an antiblack world*. NYU Press.
- Kapchan, D. (2017). Sonic translations. In J. T. Koepnick & L. Richardson (Eds.), *The Oxford handbook of sound and image studies* (pp. 1–25). Oxford University Press.
- O'Loughlin, B. (2023). *The new memory war: How the digital age is transforming remembrance and conflict*. Polity Press.
- Nagel, T. (1974). What is it like to be a bat? *The Philosophical Review*, 83(4), 435–450. <https://doi.org/10.2307/2183914>
- Noble, S. U. (2018). *Algorithms of oppression: How search engines reinforce racism*. NYU Press.
- Nora, P. (1989). Between memory and history: Les lieux de mémoire. *Representations*, 26, 7–24. <https://doi.org/10.2307/2928520>
- Nussbaum, M. C. (2006). *Frontiers of justice: Disability, nationality, species membership*. Harvard University Press.
- Pasquale, F. (2015). *The black box society: The secret algorithms that control money and information*. Harvard University Press.
- Poell, T., Nieborg, D. B., & van Dijck, J. (2022). *Platforms and cultural production*. Polity Press.
- Reading, A. (2023). *The social media of memory: Digital practices of remembrance*. Bristol University Press.

- Ribeiro, M. H., Ottoni, R., West, R., Almeida, V. A. F., & Meira, W. (2020). Auditing radicalization pathways on YouTube. *Proceedings of the 2020 Conference on Fairness, Accountability, and Transparency*, 131–141. <https://doi.org/10.1145/3351095.3372879>
- Ribeiro, M. H., Ottoni, R., West, R., Almeida, V. A. F., & Meira Jr, W. (2020). *Auditing radicalization pathways on YouTube. Proceedings of the 2020 ACM Conference on Fairness, Accountability, and Transparency (FAccT '20)*, 131–141. <https://doi.org/10.1145/3351095.3372879>
- Ricoeur, P. (2004). *Memory, history, forgetting* (K. Blamey & D. Pellauer, Trans.). University of Chicago Press.
- Rigney, A. (2018). Remembering hope: Transnational activism beyond the traumatic. *Memory Studies*, 11(3), 368–380. <https://doi.org/10.1177/1750698018771869>
- Srnicek, N. (2016). *Platform capitalism*. Polity.
- Stiegler, B. (2010). *Taking care of youth and the generations* (S. Barker, Trans.). Stanford University Press.
- Terranova, T. (2000). Free labor: Producing culture for the digital economy. *Social Text*, 18(2), 33–58. [https://doi.org/10.1215/01642472-18-2\\_63-33](https://doi.org/10.1215/01642472-18-2_63-33)
- Trouillot, M.-R. (1995). *Silencing the past: Power and the production of history*. Beacon Press.
- Tufekci, Z. (2015). Algorithmic harms beyond Facebook and Google: Emergent challenges of computational agency. *Colorado Technology Law Journal*, 13(1), 203–218.
- van Dijck, J. (2007). *Mediated memories in the digital age*. Stanford University Press.
- van Dijck, J. (2013). *The culture of connectivity: A critical history of social media*. Oxford University Press.
- Vosoughi, S., Roy, D., & Aral, S. (2018). The spread of true and false news online. *Science*, 359(6380), 1146–1151. <https://doi.org/10.1126/science.aap9559>
- Wolfe, C. (2010). *What is posthumanism?* University of Minnesota Press.
- Wynter, S. (2003). Unsettling the coloniality of being/power/truth/freedom: Towards the human, after man, its overrepresentation—An argument. *CR: The New Centennial Review*, 3(3), 257–337. <https://doi.org/10.1353/ncr.2004.0015>
- Zuboff, S. (2019). *The age of surveillance capitalism: The fight for a human future at the new frontier of power*. Public Affairs.