

Platform Memory within Memory Platforms. A Critical Analysis of Algorithmically Mediated Memories

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Abstract: Is it still possible to maintain a collective memory uninfluenced by web platforms? Can human memory, unmediated by technology, be endowed with an aura or a “*punctum*” (Barthes 1982; Benjamin 2014) as it was in the past? Is the narration of memory being progressively replaced by selective database searching? By examining international research by scholars belonging to the new perspectives of “critical data studies” (Iliadis & Russo 2016) and “critical memory studies” (Kaplan 2023), we will seek to understand how the production, archiving, and sharing of online content influences individuals’ ability to preserve the information in their memories by negotiating it with others. In this paper, we will show how technologies shape memory practices, seeking to understand whether a critical approach can develop potential practices of resistance to the colonization of our memories. The conclusions propose a “conceptual model” useful for future empirical research designs and applicable to different disciplinary fields, from sociology to cognitive psychology, from ergonomics oriented towards human-computer interaction (HCI) to Conspiracy Studies.

Keywords: Algorithmic memory; Critical memory studies; Critical data studies; Infrastructure; Platforms society.

Riassunto. È ancora possibile mantenere una memoria collettiva non influenzata dalle piattaforme web? La memoria umana, non mediata dalla tecnologia, può essere dotata di un’aura o di un “*punctum*” (Barthes 1982; Benjamin 2014) come lo era in passato? La narrazione della memoria viene progressivamente sostituita dalla ricerca selettiva nei database? Esaminando le ricerche internazionali condotte da studiosi appartenenti alle nuove prospettive dei “critical data studies” (Iliadis & Russo 2016) e dei “critical memory studies” (Kaplan 2023), cercheremo di capire in che modo la produzione, l’archiviazione e la condivisione di contenuti online influenzano la capacità degli individui di conservare le informazioni nella loro memoria negoziandole con gli altri. In questo articolo mostreremo come le tecnologie modellano le pratiche della memoria, cercando di capire se un approccio critico possa sviluppare potenziali pratiche di resistenza alla colonizzazione dei nostri ricordi. Le conclusioni propongono un “modello concettuale” utile per futuri progetti di ricerca empirica e applicabile a diversi campi disciplinari, dalla sociologia alla psicologia cognitiva, dall’ergonomia orientata all’interazione uomo-computer (HCI) ai “Conspiracy Studies”.

Parole chiave: Memoria algoritmica; Critical memory studies; Critical data studies; Infrastructure; Platforms society.

1. Introduction

The human agency of memory is amplified by the connectivity between consumers and producers of memories (Hoskins 2011). This connectivity blurs the line between collective and individual memory. This phenomenon requires the introduction of new conceptualizations of memory processes.

Hoskins, for example, introduces the concept of the memory of the multitude (Hoskins 2017). This implies that the traditional user-centred approach is unproductive. Memory does not reside in the folds of individual brains, but in the relationship between space, time, information, and matter (Barad 2007, ix). It can also mean that memory no longer exists as a performative act, but as a relationship between a digital archive and its users, both human and nonhuman.

Focusing on individual actors and how they utilize platform affordances fails to understand the changes brought about by the growing autonomy of memory infrastructures. Nonhuman algorithmic actors influence the process of renegotiation and selection of dominant themes (Hepp 2022; Hintze & Dunn 2022) by removing or softening important elements of human memory.

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Understanding the role of memory infrastructures is crucial to developing critical perspectives on the relationship between digital technology and memory, including from a postcolonial perspective (Keightley 2022) or identifying the discrimination of certain individuals and groups by platforms (Cahn *et al.* 2019; Noble 2018; Urman & Makhortykh 2022). Recent research shows, for example, that Holocaust memory has been profoundly transformed by digital archives and online social media platforms (Bar-Gil 2025). Other research shows how platforms can consolidate or renegotiate stereotypes and biases related to rape and other forms of violence (Velte 2024). It is necessary to question the user-centred approach (currently prevalent in *Memory Studies*) and integrate perspectives centred on the concepts of infrastructure and archive. Memory infrastructures and archives represent the starting point for a critical analysis of the opaque powers hidden behind algorithmic logics.

The fundamental shift toward the use of technological infrastructures is linked to the invention of printing (Connerton 2009, 4), which facilitated the codification and preservation of the past, making the transmission of memories more accessible to the general public, encouraging processes of forgetting, or diminishing the need to re-communicate information about the past (Esposito 2008; 2017). However, the web has accelerated the processes of enabling/disabling (D'Alessandro 2024), the constraints and assemblages of mnemonic practices, overturning the classical meaning of the concept of memory. Memory technologies can bring about sudden political, cultural, and economic upheavals (Makhortykh 2023). In this scenario, platforms become sociotechnical infrastructures that strategically and functionally cage memory (Van Dijck 2010). Remembering becomes a service to be managed and archived (Gillespie 2010, 348) according to organizational, economic, and cultural logics of use (Helmond 2015, 1). But the digital archive does not correspond to the procedural and analogical memory processes of communities that remember outside of online systems. The platforms' interest in our past is tied to a business model. Platformization implies the penetration of economic, governmental, and infrastructural extensions into ecosystems (Nieborg and Poell 2018).

We are in the midst of a process of colonization of our personal and collective past for commercial purposes. We will increasingly depend on our technological colonizers for access to our memories. But in the construction of memory, platforms are not neutral intermediaries.

Memories become data, and data transform into memories (Prey & Smit 2019; Jacobsen 2021; Jacobsen & Beer 2021; Smit 2024). In this scenario, could the platformization of memory also alter other (analogical) forms of memory preservation?

Platform algorithms mediate nearly every critical aspect of everyday life, not only memory, but also healthcare and employment management, shaping users' experiences through automated decisions. Do human users possess the tools to recognize fundamental algorithmic biases (Overbye-Thompson & Rice 2025) and develop strategic countermeasures? In this research, we will show how technologies shape memory practices and whether contemporary critical debate can be useful in developing practices of resistance or counteraction to the colonization of our memories.

2. Methodology

This paper's methodology is structured as a secondary qualitative comparative study of contemporary critical theories that no longer adopt a human-user-centered perspective. The primary sources for the research are pre-existing academic studies from the emerging perspectives of critical data studies and critical memory studies.

Specific empirical examples of platforms and technologies are also used:

1. Holocaust memory; 2. discussions on the Flat Earth Society on forums and Reddit; 3. the AI capabilities of the Google Pixel 8 smartphone.

The selection criteria for the studies examined are as follows: a) The selected authors adopt a critical perspective that shifts the focus from the user to memory infrastructures and archives, aiming to understand how opaque powers and algorithmic logics influence the preservation and negotiation

of memories. b) The topics examined illustrate the ways in which non-human algorithmic actors reconstruct or reformulate judgments about memory and how technologies shape memory practices.

The research's technique is based on critical analysis and the uncovering of the structures and ideologies underlying digital platforms, particularly the deceptive metrics that aim to drive engagement and monetization. This approach seeks to highlight the transformation of memory into a service to be archived and managed to strategically manage an attention economy.

Finally, the paper identifies possible practices of resistance to the colonization of memories: a) undesign, b) reinvention, and c) workarounds.

These practices imply the development of technological and cognitive skills on the part of the user. This observation raises the question of whether, currently, only a select elite might be able to counter algorithmic distortions, turning the resistance of “non-digital memory” into a luxury of the ruling classes. Paragraph n. 3 will examine a series of case studies to demonstrate how digital platforms are opaque ecosystems that actively shape human memory and decision-making, exercising power through algorithms. The platform society uses digital archives to make functional selections for specific business models, altering perceptions and choices. Algorithmic optimization is based on engagement (dwell time), not information quality. This generates emergent effects such as polarization and the spread of fake news, constituting “governance by opacity” given the uncontrollable complexity of the systems. According to critical scholars, this dynamic leads to the alteration or removal of parts of collective memory (e.g., the different treatment of Holocaust memory online, pseudoscientific conversations about flat earth, conspiracy theories, etc.), making it an object of consumption, polarization, and monetization. Furthermore, the technology enables the manipulation of personal memories (in this case, we examine the Google Pixel 8 device and its algorithmic features: *Magic Editor*, *Magic Eraser*, and *Best Take*).

In paragraph n. 4, we attempt to describe how the collective memory constructed by traditional mass media is gradually being replaced by a more unstable and ephemeral algorithmic memory.

This transition involves replacing narrative with the archive-database. The archive is no longer a place of classification subject to successive selections by human agency, but a techno-mathematical procedure subject to alterations primarily dictated by an artificial agency. Faced with this new “colonization” of memory and remembrance, resistance practices such as undesign, reinvention, and workarounds are emerging. However, these strategies require advanced technological and cognitive skills, raising the question of whether only an elite can truly counter the distortions of digital memory.

The conclusions propose a “conceptual model” that could be useful for future empirical research designs. This comparative and qualitative theoretical research aims to observe *Platform Memory* as a “process of ontological transformation of remembrance,” where the performative act of collective memory is replaced by a permanent sociotechnical archive managed by nonhuman algorithmic actors within proprietary ecosystems. This memory is intrinsically oriented toward the monetization of attention and the shaping of behaviours that determine a colonization of the past that persists even when the individual is disconnected.

3. Web Infrastructures Make Memory a Constantly Evolving Process

Platforms are not just technology companies, but sociotechnical ecosystems that orchestrate information, economic, and cultural flows on a global scale. They do not simply provide services but rather create closed environments where the rules of the game are defined, the content to be made visible is decided, and certain relationships are strengthened at the expense of others.

In parallel, the emergence of technologies such as generative artificial intelligence, large-scale linguistic models (LLMs), and deep neural networks is enabling the generation of new artificial cognitive systems. These systems process content, make autonomous decisions, and influence opinions, using and manipulating digital memory archives to make selections that serve a business model or the creation of a new movement of ideas. Systems promise to facilitate our understanding

of the world, but they alter human perceptions, desires, choices, and “memories of choices” made in the past. According to critical scholars, contemporary power is exercised through the shaping of information environments. It does not act by imposing orders from above, but by shaping the contexts within which decisions are made through guidance and nudges stimulated by algorithms.

Algorithms, at their most basic level, are instructions for solving or performing a problem or task, typically in a repetitive manner. The term algorithm refers to computer code containing a series of instructions used to operate a particular technology.

Artificial intelligence (AI) applies algorithms to perform specific types of intelligence, such as language processing, content creation, human learning, or planning. From hiring (Kuncel et al. 2013) to probation sentences (Laqueur and Copus 2022), algorithms are created with the goal of making our lives safer and more comfortable, but they do not benefit everyone equally.

They reshape not only how we judge, but also how we reconstruct our memory of what has happened to guide subsequent judgments or facilitate decisions and choices. This type of power is the more effective the more invisible it is. It manifests itself in suggestions, in the priorities established by automatic rankings, and in the metrics that define the success or failure of information, a product, even a personal identity. In this scenario, traditional governance tools are inadequate.

The systems that govern our existence have become so extensive and opaque that even those who design them cannot understand all their dynamics (Esposito 2022). This is the phenomenon that some critical analysts call “governance by opacity”: systems produce unwanted or uncontrollable effects, but their complexity prevents effective intervention or clear accountability.

The contemporary paradox is that we have immense computing power and sophisticated modeling tools, but we lack governance. Furthermore, we lack a cultural orientation that helps humans recognize the limits of predictions, system errors, and the reworking of memories.

Numerous scholars in critical studies and critical memories studies examine, in their research, the self-deception caused by the relationship between humans and digital platforms with respect to the following themes: complexity reduction, management of power and memory, comfort zones, and the home-based world (Iliadis & Russo 2016; Borghi & Marrone 2022; Kaplan 2023).

Humans believe they can reduce uncertainty by seeking easy memory and decision-making solutions, while digital ecosystems increase complexity and opacity. To better understand the phenomenon, it’s useful to look at a specific example, focusing on the behaviour of social feeds.

Observation of personalized social feeds reveals that, for the same topic, more polarizing content tends to receive greater visibility.

There’s an anomaly between the stated goal of informing and the actual result of polarization or the engagement it incentivizes. Social content ranking algorithms prioritize engagement not for ethical or informational reasons, but because increased interactions generate greater advertising revenue. This hypothesis can be verified by analysing the correlations between ranking parameters and economic metrics. It’s enough to compare two versions of a video recommendation algorithm: one optimized for dwell time and the other for information diversity.

By measuring which of the two versions generates greater pluralism in the content viewed and less exposure to extreme content, we discover that the polarization effect occurs more strongly with recommendation algorithms optimized to ensure users stay connected longer. These algorithms enable more efficient advertising planning and incremental management of our attention.

Platforms have built an attention economy where mass media exchange information and entertainment for user dwell time, which, in turn, is monetized through advertising (Franck, 2018).

Officially, algorithms are designed to offer relevant content and improve the user experience.

But empirical data analysis shows that the primary optimization criterion is engagement, not information quality or balance.

This orientation produces well-documented emergent effects: polarization of opinions, accelerated spread of fake news, reinforcement of cognitive biases, and removal of content that is not useful for maintaining its online presence (even when it is part of the collective memory).

It is in these cases that the critical scientific method makes visible what the system tends to conceal.

Scholars belonging to the field of critical studies seek to uncover the behaviour of deceptive metrics and the objectives of narratives that serve to maintain the status quo. A theoretical example of the critical uncovering of this distortion had already been expressed before the advent of platforms, with Goodhart's law: when a measure becomes a goal, it ceases to be a good measure (Goodhart 1975).

Applied to today's system, this critical consideration reveals the following statistical aspect: if a system declares its goal to improve service quality and uses time spent on a platform as a metric, it will end up designing mechanisms that maximize permanence even at the cost of reducing the actual quality of content or fuelling behavioural addictions.

In this sense, the scientific method of observing platform behaviour is a critical tool, but also an act of cultural and political resistance that opposes opacity, rejects simplifications, and asserts the right/duty to demand transparency of the hidden business model.

Critical studies reveal that power is exercised not only by controlling resources or imposing laws, but also by deciding which mental models become dominant and which representations of reality establish themselves as indisputable truths.

To construct a specific dominant mental model, it is necessary to remove a part of memory that is not functional to this process.

Thus, the removal and alteration of memory become an object of exchange for the management of power and the monetization of attention.

Does this process of altering and removing collective memory risk altering our memory even when we don't use platforms? Here too, specific examples are needed to understand the phenomenon.

Makhortykh (2021), analysing Holocaust memory, shows that search engines prioritize images related to Auschwitz, while downplaying content related to other concentration camps. While this may be explained by Auschwitz's importance as a symbol of the Holocaust, it is also due to the fact that Auschwitz is often sought as a popular destination for so-called "dark tourism". For Makhortykh, "this lack of clarity is worrying, considering that algorithm-based decisions define how visible and, consequently, recognizable specific aspects of the past will be" (Makhortykh 2021, 182). In this case, decisions affecting people continue to be driven by the web even when they are not online.

The removal or emphasis of certain aspects of memory that are systematically distorted by algorithms enters into post-algorithmic memory processes. Pilati et al. (2024), comparing discussions on flat-Earth beliefs in two virtual venues - the official forum of the Flat Earth Society and its thematic sub-Reddit community - note that collective memory and the systems of scientific knowledge fuelled by recollection are continually renegotiated by web infrastructures that become new memory infrastructures. The Flat Earth Society Forum reproduces discursive repertoires that simulate the scientific method: users write detailed posts, cite sources (however imperfect), and construct elaborate, albeit false, theories. It is a virtual world that produces pseudoscience using, apparently, the same method as official science, strategically manipulating what is true and what is false, adding and removing selected memories from digital archives.

Reddit tells a completely different story: conversations are faster, more emotional, and less coherent. Users don't want to construct systematic theories, but memorable slogans, viral memes, and polemics. In this case, the community seeks not truths or alternative memories, but contrasts. While the forum, with its permanent archives and slower pace, promotes the construction of coherent explanations, even if they're incorrect, the Reddit platform generates a mythical, emotional, and destructive narrative. Reddit is a social news and content aggregation website, where registered users (called redditors) can post links, text, images, and videos.

This content is organized into thematic communities called "sub-Reddits". Users can upvote or downvote content, influencing its visibility within the platform. This type of social media, based on the ephemeral flow of circles and the attention economy business model, generates what scholars call "conspiracies without theory": content designed to be captivating and divisive rather than convincing.

In this case, we are witnessing a complete destruction of official memory, distorted to achieve other ends. The forum prioritizes pseudoscientific discourse, while the sub-reddit promotes

antagonism and uncontrolled escalation. While in a “forum” it is still possible to counter-argue to restore collective memory about a specific phenomenon, on a “sub-Reddit” this strategy of counterarguments through fact-checking does not work. The sub-Reddit transcends the concepts of truth, source reliability, and coherence. Without these stable pillars, how is it possible to build a shared collective memory?

A study by Smit et al. (2024) examines the effects of the Google Pixel 8 smartphone and its new algorithmic features: “Magic Editor”, “Magic Eraser”, and “Best Take”.

These features promise radical flexibility, allowing users to: a) reposition people and objects within images; b) enhance colours and textures; c) combine similar photos into a single composite image, to prevent people from blinking; d) reduce noise from cars or wind in videos. While such effects can already be achieved with software like Photoshop, some scholars believe that such applications are “just one example of a more profound way in which artificial intelligence (AI) could alter our very conception of the past” (Smit et al. :1). This means that the “camera roll of the future” could lose the small fragments of texture that allow us to remember certain events from the past as they actually happened (Warzel 2023).

This further example illustrates that digital technologies, smartphone devices, and social media platforms bring about two radical changes: a) they provide a space in which mediated memories can be permanently stored, edited, and revisited (Van Dijck 2007); b) they shape the way these memories are automatically produced, collected, and how they become relevant to people in everyday life (Annabell 2023).

The infrastructures that enable the transmission of memory proceduralize this memory through the archive. The archive becomes the source, but also the place where memory is reconfigured, losing the performative aura of human recollection. How, then, is it possible to maintain a memory that is not affected by this process even when outside the web platform?

In the next section, we will see how critical scholars seek to describe, understand, or propose forms of resistance and opposition to the colonization of memories.

4. From the Narration of Remembrance to the Archive. Forms of Resistance or Opposition to the Colonisation of Memories

If the goal of a platform is engagement, the content promoted will be aimed at creating forms of belonging, emotional impact and retention strategies based on debates that are fuelled regardless of the sources. Engagement will also reinforce biases - in particular confirmation bias (Hergovich et al. 2010) - which fuel the echo chamber phenomenon (Quattrociochi 2016), further increasing the loyalty of groups that frequent certain websites, portals, discussion forums and social media. In many cases, the source found on the web may be altered from the outset and then archived and made available as a reference for specific groups.

Through this process, typical of digital culture, time and memory, in the classical sense of the term, disappear (Misztal Barbara 2010) and lose their aura (Barthes 1982; Benjamin 2014).

The loss of these dimensions favours a one-dimensional society, as Marcuse (1964) had already intuited, to the advantage of the dominant class. The latter, in fact, sees the past as an enemy that must be destroyed. Only by erasing the past can the present prevail without objection and become the only possible and plausible decision, even when it does not correspond to the truth.

Yet, “only by mastering the past can society have the capacity to be critical of the deceptive appearance of the present, and to do so, memory and continuous remembrance must be taken into account” (Mella 2013, 658). Cyberspace is a contemporary form of collective memory (Kansteiner 2002), but at the same time it removes or hides alternative forms of collective memory, limiting biodiversity in mnemonic manifestations.

We are witnessing confusing processes of “Blended Memory” (Fawns 2012) where technologies influence our ability to remember. Our relationship with technology influences our individual and

collective memory practices, even when we are not using devices, because what we have used or practised online remains as a residue and permanent attitude even after we have left the web.

In the recent debate among critical scholars, there has been a marked tendency to interpret digital memory as a new type of memory, labelled as mediated memory, connective memory or algorithmic memory. This is a radically different conceptualisation from the traditional one (Garde-Hansen et al. 2009; Makhortykh 2021).

Radicalising this position, Hoskins argues that the digital shift implies the end of collective memory. The author argues that the notion of collective memory is intrinsically linked to traditional mass media: “established (broadcast) media and collective memory are symbiotic” (Hoskins 2017, 91). In the broadcasting era, the collective, identified as the audience, was defined by the shared and stable consumption of a representation: the classic media event that provided both homogenisation and stability to memory. In the digital age, the “memory of the multitude” - this is the term Hoskins proposes to replace the term “collective” - does not derive from “spectatorship” but rather is created through sudden participation in a theme (event or news item).

Transitory, ephemeral, immediate and dispersed communities, formed through hyperconnectivity, generate content that is constantly modified, re-edited and altered, in a perpetual state of flux without a common thread. The memory produced by these virtual communities lacks the homogeneity and stability that are the hallmarks of collective memory.

The memories constructed by virtual communities are inherently unstable, fleeting and inconsistent.

They are also fed by alterable archives. With their permanent presence on the web, social media and forums themselves constitute sources for archives. Finally, with the current integration of AI into search engines, discussions (whether true or false) become, in turn, sources from which to draw.

It is not reliability that counts, but flow. Digital media have a characteristic that the traditional idea of social media does not necessarily possess. They construct an archival logic.

According to Hoskins, the archival ontology of digital media translates into a fundamental loss of human agency and radical unpredictability in the life cycles of memory.

Hoskins describes this unpredictability using the image of “shadow archives” that extend the potential life of our digital traces into an uncertain future. In short, digital memory appears fundamentally restless, boundless and governed by a technological logic whose temporality and affordance are essentially different – in some cases incompatible – from the traditional functioning of collective memory. The analogical collective memory provides coherence, stability, common words, shared languages and interpretations that last over time, giving identity to the group in the present, but also projecting certainty into the future.

According to Hoskins, the term collective memory does not describe but obscures “the radical transformations of memory that characterise the twenty-first century” (Hoskins 2017, 97).

Other scholars are more moderate. Mandolessi (2023, 1515), for example, assumes that digital memory does not imply the end of collective memory.

However, scholars in the critical field agree that the archive (whether true, plausible or completely false) is not synonymous with memory and should not be confused with the act of remembering. Remembering is a performative act. The archive refers to the substrate, to the condition of possibility of the act of remembering. The difference between substrate and act is exemplified by the distinction between “canon” and “archive” proposed by Assmann (2011), in which the canon represents the “active” circulation of memory that keeps the past present, while the archive refers to passively stored memory that preserves the past as past and is subject to alteration by bots that can draw selectively, pursuing an end that may not be functional to collective memory. Digital archives are not places where objects or documents are stored.

Rather, they are procedures, techno-mathematical operations that store data in a conditional form. The temporality of digital media is what Chun (2008) has defined as “enduring ephemera”, referring to the tension between the seemingly permanent nature of digital information and the fact that such information can evolve continuously until it is radically transformed, causing the original data to

disappear. In line with this argument, Lev Manovich argues that in the digital age, narrative as a cultural form has been replaced by the database: if the novel and cinema have privileged narrative as the key form of cultural expression of the modern era, the computer age privileges the database.

Many new media objects do not tell stories, have no beginning or end, and have no thematic, formal or other development that can organise their elements into a sequence. They are collections of individual elements, each of which has the same meaning as any other (Manovich 2001, 218).

Pseudo-scientific forums or social media that stray from the topic draw information from the archive-database. The archive-database becomes the foundation that replaces narrative.

Collective memory becomes an archive distributed and managed by both human and non-human agents, in a dynamic intertwining where there is no narrative that allows a community to recognise itself in a stable way. The transition from mnemonic objects to mnemonic assemblages, composed of people, things, artefacts, spaces, discourses, behaviours and expressions in dynamic relation, becomes the daily practice that stalks human beings even when they disconnect.

The new human way of remembering is influenced by the way we programme, annotate, classify, create folders, share or simply set aside useful information, always using devices.

The device acts even when it is not being used, because it always travels with the human subject.

The latter knows that they may need the device at any moment to recall what they have stored.

Therefore, the fundamental change is not so much the alteration of sources for secondary purposes - a process that also occurred in the past with traditional sources - as the inability to maintain a common repertoire. The other fundamental change is that memory is being replaced by the process of archiving and retrieval. Keyword search methods favour a selection that can fuel confirmation bias.

Kordzadeh & Ghasemaghaei (2022) note that, despite extensive research on algorithmic bias, there are few studies on how such biases influence subsequent decisions or behaviours.

Is it possible to resist the suggestions offered by archives, forums or social media? Is it possible to escape the ontology of the archive when we try to remember? Is the archive becoming the dominant infrastructure of memory? How can we counterbalance this pervasive colonisation?

Although there is currently no standardised terminology to describe strategies to combat this process, critical scholars propose various individual or collective practices to avoid “data dystopia” (Walsh 2019). Some scholars refer to “undesign” practices, examining users who attempt to remove, move, delete, inhibit or prevent certain actions proposed by technological devices or algorithmic suggestions (Pierce 2014). Other scholars examine disconnection practices alongside those of a) overturning suggestions; b) further research; c) returning to traditional sources; d) blocking functions through hacking (Herskovitz *et al.* 2023).

Hacking involves a deliberate intent to adapt a system to gain an advantage or improve functionality, but this approach does not prevent biases or modified sources from interfering.

Other scholars examine the process of reinvention, a component of innovation diffusion theory.

Reinvention refers to the adaptation or modification of an innovation after its adoption (Rogers 2003, 180). Rather than accepting or rejecting an innovation as it is, users can reinvent solutions for specific needs (Rogers 2003). This adaptive process allows users to selectively modify certain components or applications of a technology. For example, a social media user might reinvent a feed curation algorithm through behaviours such as selectively “liking” content to influence the algorithm and display more similar content (Burrell *et al.* 2019). Like hacking, reinvention encompasses the idea that users modify technologies to better suit their needs, often through behavioural adjustments, reconceptualisations, or alternative uses.

Finally, there is a school of thought that introduces the concept of “workarounds” (Wei *et al.* 2023; Overbye-Thompson & Rice 2025). Workarounds represent strategic, goal-oriented practices through which individuals creatively navigate and overcome systemic barriers or constraints (Ejnefjäll & Ågerfalk 2019). In organisational and IT contexts, workarounds emerge as intentional adaptations that enable individuals to complete tasks or restore system functionality when standard procedures are ineffective, blocked, or misaligned with practical work requirements (Wei *et al.* 2023). These

adaptive strategies are driven by users' motivations to improve efficiency, reduce transaction costs, and overcome systemic limitations (Ejnefjäll & Ågerfalk 2019).

All these resistance practices require those who resist to develop considerable skills, both technological and cognitive. Does this mean that only a small elite will be able to counteract the distortions of the algorithm and the infrastructure of digital memory?

Avoiding the distortions of digital memory dominated by archives and algorithmic suggestions becomes an action related to problem-solving skills, level of education, the time available to verify the source, and the financial resources that allow for the use of tools to verify or falsify sources.

5. Conclusions

Following a critical approach, we can affirm that the web is developing a platform memory within memory platforms. Memory infrastructures and archives represent the starting point for a critical analysis of the opaque powers hidden behind algorithmic logic. Having examined research and practices applied to technological devices, critical data studies and critical memories studies have shown how the web accelerates the processes of enabling and disabling in the assemblages of mnemonic practices, subverting the classical meaning of the concept of memory.

Remembering becomes a service to be managed and archived, but the digital archive does not correspond to the procedural and analogical memory processes of communities that remember outside of online systems. Platforms have constructed an attention economy where mass media exchange information and entertainment for user permanence, which, in turn, is monetized through advertising.

Critical studies reveal that power is exercised not only by controlling resources or imposing laws, but also by deciding which mental models become dominant and which representations of reality establish themselves as indisputable truths. To construct a specific dominant mental model, it becomes necessary to remove a part of the memory that is not functional to this process.

But does the alteration or erasure of collective memory risk altering our memory even when we don't use platforms? Following the international debate, we can conclude that our relationship with technology influences memory practices (individual and collective) even when we don't use devices, because what we have used or practiced online remains as a residue and a permanent attitude even after we leave the web. We live in a permanent sociotechnical cognitive system. In the recent debate among critical scholars, a marked tendency has emerged to interpret digital memory as a new type of memory, labelled mediated memory, connective memory, or algorithmic memory, radically different from traditional conceptualizations. Time and memory, in the classical sense of the term, disappear, losing their aura. The transition from mnemonic objects to mnemonic assemblages - composed of people, things, artifacts, spaces, discourses, behaviours, and expressions in dynamic relation - becomes the daily practice that haunts human beings even when they disconnect.

The new human way of remembering is influenced by the way we program, annotate, classify, create folders, share, or simply set aside useful information. The device operates even when not in use, because it always travels with the human subject.

The human subject knows that he or she may need the device, at any moment, to recall what has been archived. Is it possible to resist the suggestions offered by the archive, the forum, or social media? Is it possible to escape the ontology of the archive when we attempt to remember?

Is the archive becoming the dominant infrastructure of memory? How can we counterbalance this colonization? Critical scholars identify forms of resistance through practices of hacking, undesign, reinvention, and workarounds. However, these practices of resistance require the development of great skills on the part of those who resist.

Does this mean that only a small elite will have the ability to counter the distortions of the algorithm and the infrastructure of digital memory?

Will the resistance of "non-digital collective and individual memory" be the prerogative of the power elite? Will "non-digital memory" be a luxury of the ruling classes?

These questions pose new research avenues for critical theory, which continues to be a valuable tool for uncovering the deep structures and false ideology surrounding digital memory infrastructures.

Below, we propose a conceptual model that could be useful for future empirical research designs.

Components of the conceptual model of platform memory analysis in memory platforms	Definitions of the components to be analysed
Platform Memory Attributes	<i>Archival Ontology</i> Memory as a digital archive versus memory as a performative act of remembering
Mechanisms	<i>Deceptive metrics (engagement)</i> The primary goal of the system is not information quality, but rather increasing interactions for advertising purposes <i>Algorithmic Modeling</i> Algorithms guide decisions and the reconstruction of the past
Enabling / Disabling Context	<i>Platforms as Infrastructures</i> Platforms as ecosystems that strategically capture memory, functional to the business model <i>The Attention Economy</i> Memory as a service to be managed and archived, exchanged for the user's permanence
Consequences	<i>Colonization/Removal</i> Alteration and removal of parts of memory that are not functional to the dominant mental model <i>Loss of aura</i> Disappearance of time and narrative in favor of an archive-database <i>Permanent cognitive system</i> The residue of online practice becomes a permanent attitude even offline

The previous conceptual model illustrates how platforms, driven by business and engagement logic, transform the digital archive into a form of platform memory (permanently alterable) that serves the structuring of memory management platforms. The concept of Platform Memory is a critical synthesis of the following notions introduced by the critical literature:

- *Mediated Memory* (Van Dijck 2010). This focuses on the medium (the device) as a space where memories are stored and modified. Platform Memory is an evolution of this, shifting the focus from the medium to the sociotechnical infrastructure that hosts it.
- *Connective Memory of the Multitude* (Hoskins 2017). This highlights the failure of collective memory, replaced by the ephemeral and incoherent memory of the multitude, generated by the hyperconnectivity of users. Platform Memory explains why this multitude is incoherent, fragmented, and permanently unstable. Platform memory is a perverse result/consequence/effect of engagement mechanisms that incentivize polarization and fragmentation.
- *Algorithmic Memory* (Esposito 2022; 2017). This focuses on the role of algorithmic agents in the selection and reconstruction of memories. Platform Memory frames the algorithm not as an isolated actor, but as an intrinsic mechanism of the platform's business model (Governance by Opacity), whose purpose is not to remember, but to monetize.

In short, Platform Memory is the critical outcome where the economic and infrastructural logic (Platform) uses mediation and leverages connectivity to implement algorithmic agency, colonizing personal and collective memory.

The paper is a critical-theoretical synthesis and analysis of international research, but it also constitutes an experimental theoretical design because it offers a conceptual model that provides a framework for future empirical validation in specific field studies.

The conceptual model identifies and defines the following constructs: a. properties; b. mechanisms; c. enabling contexts; d. consequences of Platform Memory.

These constructs can be operationalized and tested in various research fields, such as:

1. Memory studies oriented towards the sociology of culture

In this case, the conceptual model could be useful for constructing:

a. Validation tests of the digital archival ontology, supporting empirical studies to quantify or qualify the individual perception of memory, verifying whether the past is perceived as an archive/database accessible through selective search, rather than as a fluid and performative narrative.

b. Research on the aura of recurrence. In this case, the conceptual model could be useful for experimentally verifying whether digital memories, devoid of an “aura” or “punctum” (Barthes 1982), generate a lower or higher emotional and cognitive impact than memories mediated by other traditional channels.

2. Conspiracy Studies

In this context, the model could be useful for:

a. Experimentally analyzing, on platforms like Reddit, the extent to which engagement mechanisms and algorithmic biases contribute to the colonization of historical, political, or scientific memory, favouring the visibility of marginal or conspiratorial narratives.

b. Analysing the development and operation of opaque powers and judgments, using algorithmic auditing methods to concretely reveal the contexts in which nonhuman algorithmic actors distort judgments and memory reconstructions.

3. Design Ethics and Human-Computer Interaction (HCI)

In this context, the model could be useful for testing the effectiveness of resistance practices such as undesign, reinvention, and workarounds. Future HCI studies could design experimental interfaces based on undesign and measure their effectiveness in mitigating platform dependence or reducing the impact of engagement metrics on memory and attention. These studies could also test whether technological and cognitive skills are indeed a necessary condition for resistance, and whether, consequently, the ability to maintain an uncolonized memory is the privilege of an elite.

4. Cognitive and Trauma Psychology

In this context, the model could be useful for analysing the permanent cognitive residue of online memory in offline practices. The model suggests that the residue of online practice becomes a permanent cognitive system even offline; it could inspire experimental investigations of this behavioural transfer and its implications for the formation of new memory traumas or the management of existing ones.

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