

Original Article

History and Artificial Intelligence: Reimagining the Past in the Digital Age

Dr. Tanaji Janardhan Fulari

Associate Professor, Dr. Ganpatrao Deshmukh College, Sangola, Tal. Sangola, Dist. Solapur

Abstract Artificial Intelligence (AI) is transforming the study, interpretation, reconstruction, and dissemination of history by introducing new computational approaches to traditional historiographical practices. This paper examines the growing relationship between AI and historical scholarship, with particular attention to computational textual analysis, natural language processing, AI-generated visual artefacts, reinforcement learning, archaeological pattern discovery, and the digital reconstruction of historical urban spaces. It highlights how AI-assisted methods can facilitate the analysis of extensive archival collections, identify patterns in historical texts and archaeological data, reconstruct lost or inaccessible cultural materials, and provide new ways of exploring historical events and environments. The paper also considers the potential of AI to reopen neglected sources, amplify underrepresented perspectives, and improve accessibility to historical knowledge in education and public history. At the same time, the integration of AI into historiography raises significant epistemological and ethical concerns, particularly regarding data bias, representation, authenticity, authority, transparency, and the role of historians in interpreting machine-generated outputs. The study argues that AI should not replace human historical interpretation but should function as a collaborative and critical tool that expands the possibilities of historical inquiry. A responsible and transparent approach to AI-mediated history can contribute to a more inclusive, accessible, and innovative digital historiography while preserving scholarly judgment and critical engagement with the past.

Keywords: Artificial Intelligence (AI); Digital History; Historiography; Natural Language Processing (NLP); Machine Learning; Computational History; Digital Reconstruction; Archaeology; Historical Archives; Cultural Memory; AI Ethics; Data Bias; Historical Interpretation.

Address for correspondence: Dr. Tanaji Janardhan Fulari, Associate Professor, Dr. Ganpatrao Deshmukh College, Sangola, Tal. Sangola, Dist. Solapur

Email: drtanajifulari@gmail.com

Submitted: 25 June 2024 **Revised:** 03 July 2024 **Accepted:** 15 July 2024 **Published:** 31 Aug 2024

INTRODUCTION:

Artificial Intelligence (AI) promises to reshape historiographical practice. Originally defined by John McCarthy in 1956 as “the science and engineering of making intelligent machines,” AI enables machines to perform tasks requiring intelligence—such as reasoning, knowledge, planning, learning, natural language processing, perception, and action—without direct human guidance. The discipline has undergone numerous transformations, from naïve optimisms in the 1960s to the 1980s “AI winter” and the emergence of machine learning, notably deep learning, after the 2010s. AI has been variously integrated into historiography, spurring a range of exhibits, projects, and publications. Tracking the emergence of AI helps to clarify its ambitions, obstacles, and eventual adaptations to emerging

milestones. Appreciating four recent developments in AI—as-elementary-age data-mining and natural-language-processing, text-to-image synthesis, baseline reinforcement-learning for historical simulation, and large language model brokering—establishes computational history as emergent yet contingent on extant practices. Such interventions have attracted attention, not for intended audience or reuse, but because data and applications cultivated for other fields afford a different rhythm to source analysis and representation. Evaluating how AI reshapes the field, at what temporal scale, and the technical intentions behind each endeavor enhances understanding of perceived transformations in practice. (Jaillant & Caputo, 2022)

Quick Response Code: 	Access this article online	This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution 4.0 International . The Creative Commons Attribution license allows re-distribution and re-use of a licensed work on the condition that the creator is appropriately credited. How to cite this article: Fulari, T. J. (2024). History and Artificial Intelligence: Reimagining the Past in the Digital Age. Royal International Global Journal of Advance and Applied Research, 1(2), 45–52. https://doi.org/10.5281/zenodo.22810230
	Website: https://rlgjaar.com	
	Website: https://www.doi.org	
	DOI: 10.5281/zenodo.22810230	

The Emergence of AI and Its Historical Implications

Artificial Intelligence (AI) has evolved into a dominant paradigm and a significant research domain, yet its historical context remains relatively unexplored. A systematic investigation reveals major milestones and directions in the emergence of AI, as well as sociotechnical and historiographical perspectives that have influenced its development. AI can be understood through different paradigms that alternate between mannerisms and functions, purposes and objectives, and the capacity to accomplish. Some of the contemporary discourse on AI lacks historical reference points. The earliest systematic inquiries into mechanised thinking are grounded in the work of Aristotle on syllogistic arguments and al-Khwarizmi on computational algorithms. The fields of Computing and information Theory have played fundamental roles in shaping AI. The Internet, popularisation of Machine Learning, and increasing computational capacity have further influenced its evolution (B. Audibert et al., 2022). The historiography of AI has undergone substantial reframing since it was first established. Early inquiries framed it within the context of Cybernetics and the interwar development of Feedback and Control Systems. More recent accounts have positioned AI primarily in relation to Computer Science and Computing, locating its origins in a more capacious understanding of automation. The Sociotechnical Dynamics of ML Systems and the Anthropocene–Machine Paradigm have also been proposed as lenses for interpreting AI. Historiographical shifts have engendered corresponding reconsiderations of material configurations, actor–network dynamics, academic economies, and research infrastructures supervening AI’s development. These changes in emphasis create novel possibilities and framing for the investigation of AI, including elaboration of its periodisation, exploration of the alignment between its material-emotional infrastructure and application domains, analysis of its coupling with profound technological and societal transformations, and examination of the interdependencies between research modes, funding flows, and institutional formations (Taylor & Dorin, 2018).

Methodologies: Digital Reconstruction and Data-Driven History

AI’s impact on research in the humanities is multifaceted, a blend of pre-existing and emerging questions and techniques. To track sources, trend analysis and natural language processing can shed light on the dynamics of scholarly communication through language, subject matter, and dissemination patterns (Alves, 2014). Technologies such as generative adversarial networks provide historians with opportunities to generate high-fidelity images or video sequences based on collections of training material, enabling the recreation of lost artworks or culturally relevant artefacts. The technologies underpinning the methodology of AI have grown exponentially since the mid-20th century, giving rise

to computing languages, databases, and multimedia tools that facilitate historical research and writing. The term ‘Artificial Intelligence’ encompasses a range of issues that are relevant to the study of the past – including embodied cognition, neural nets, machine learning, and more – but concerns with the historical interface were not prominent amongst historians of science until the 1990s. AI technology has roots in tangible practices that reach back to antiquity, such as symbol manipulation and counting games. Current forms of AI comprise a delimited spectrum of practice, with most action remaining too indeterminate to warrant classification as artificial intelligence. AI has also sparked interest amongst historians in fields such as large language modelling, culture mining, reconstructive archaeology, and numerical humanities.

1. Computational Textual Analysis

Computational Textual Analysis aims to reveal the principal themes and tropes of a corpus. A substantial body of research on early modern biblical texts demonstrates how Natural Language Processing (NLP) can help historians examine the past by honing in on significant documents. A project focused on the history of Christianity in late-Ming China illustrates how historians employ Topic Modelling on early Christian texts to dissect the cultural and theological exchanges between China and Europe. NLP techniques facilitate the identification of key terms, enabling investigations into the meaning of these terms in the broader context of early Christianity in China (Spina, 2023). The application of Computer-Assisted Textual Analysis to the full corpus of The New York Times (1851–2008) and the combined Journals of the House of Commons and the Journals of the House of Lords (1604–2015) illustrates how these documents reflect public discussions of public health in light of nation-wide and global threats (Tilton, 2018).

2. Visual Culture and AI-Generated Artefacts

“AI-generated art has been at the forefront of a much broader discussion of AI’s role in the arts (Cetinic & She, 2021).” Most AI-generated images and videos – including the widely circulated “storyboard” videos produced by the recent viral AI tool, Runway – have still been regarded as sketches rather than complete pieces, as they are not accompanied by the lengthy and carefully thought-out narratives that one sees in more traditional forms of conceptual art. Such AI-generated art can feel like a resource for traditional artists seeking to stimulate the right side of their brain and break free from habitual paths (Their Shadow, 2021). For example: Xavier Cortada, an artist who trained a generative adversarial network (GAN) on eight paintings that had accompanied an environmental report produced by the Intergovernmental Panel on Climate Change, claimed to have turned scientific data into paintings. Instead of the colour palette, brush strokes, or composition, he was actually “detailing the end of a civilization” and “chronically the story of the Earth”. As these haphazard collections of images continue to proliferate in the digital environment, they ironically

lay the groundwork for proposing the integration of more traditional cultural artifacts in a deep-learning-driven exploration of history.

3. Reinforcement Learning in Historical Simulations

Reinforcement learning techniques have found application in various complex environments such as large-scale gaming and military simulations. Reinforcement learning enables artificial agents to learn strategic behavior through trial-and-error interactions with their environment, guiding the agent regarding desirable actions according to long-term rewards. Such techniques have already achieved grandmaster-level performance in StarCraft II and superhuman play in heads-up no-limit poker. These notable milestones showcase reinforcement learning's ability to deal with complex, imperfect-information games involving long-term strategic planning. Recently, the combination of computational models and historical data has allowed wargaming to be integrated into defense and cybersecurity applications for decision-making under uncertainty and strategic foresight. Historical simulations incorporating reinforcement learning have been developed to capture the persistent dynamics of urban situations influenced by political, economic, social, and geographic feedback. Reinforcement learning supports historical modeling and simulation by integrating synthetic data from diverse texts that convey motivations, satisfy constraints, and interact with a state representation under a reward signal. Interactive environments where agents can observe sequences of actions enable the exploration of complex historical problems in the past as forward-looking counterfactual policy planning. These applications illustrate the potential of reinforcement learning for modelling historical agency across diverse events and contexts. Reinforcement learning has further expanded into wargaming and large-scale military simulations with the aim of assisting decision-making and strategic planning. Since policy and value functions are defined over a vast action space, long sequences of decisions are required to achieve favorable outcomes and learn meaningful behaviour. Challenge-based reinforcement learning aligns well with the needs of historical simulations where agents must navigate evolving political scenarios and selective constraint satisfaction over extended time frames. Constrained decision-making for historical agent-based modelling is added to the environmental formulation for an abstracted version of city-state interactions in Classical antiquity. Reinforcement-learning agents employ a policy adapted to the unobserved but relevant multi-agent political state of the environment, allowing investigation of the historical agency and the impact of structured incentives or selective outcome observations on strategic choices (Black & Darken, 2024).

Case Studies: Reopenings of the Past through AI and Digital History

Recent case studies demonstrate how AI and digital techniques shape the discipline. History rightly

privileges certain voices, texts, and sources for a host of reasons. Increased digital access to multimodal material constitutes an unprecedented opportunity to revisit this élitism and make the past more porous. The case studies explore especially neglected areas of the historiography by focusing on works that tackle forgotten objects, support non-reading-centric forms of literacy, or offer rarely seen perspectives on the past. Combining cultural history with AI promotes awareness of the predominant priorities in digitally assisted historical study, identifies the potential to open the past in novel ways, and spotlight likely causes for the fascination. History occupies a privileged space: as the only human science that can easily link the spectacular novelty of the digital with long-established techniques, methods, and heuristics. AI tools supply historians with unprecedented opportunities to reopen texts, documents, and objects through existing scholarship, hardware, and, most crucially, software. Post-COVID engagement with grammar and syntax, generally viewed as antiquated or perfunctory, breaks through ignored texts and neglected voices, potentially illuminating older phenomena and methods like competitors' analyses of lost works. Whenever desirable, the versatile tools allow conversion of much material—especially neglected but still accessible—into rich, persistent digital objects, linked to previous scholarship, and made available in suitable, editable formats. The first case study deals with long-standing but rarely exploited grammatical analyses of Latin, Chinese, and Hebrew texts. In a comparable fashion, archaeologists, instrumentalists, and visual artists engaged before, during, and after the COVID pandemic with the substantial, but largely inaudible, discourses about the corresponding disciplines and respective technological affordances, now readily approachable through both the digitization and the accessibility of former academic production. Attention to term composition, document accessibility, quotation density, abstract use, and illustrative remains already clarifies the degree of engagement with these overlooked discourses and articulates key elements of the subsequently developed non-textual artefacts. Archives and correspondence from the same eras suggest fresh avenues worthy of digital exploration (Colavizza et al., 2021).

1. Reinterpreting Ancient Texts via Natural Language Processing

Reconstructing past events with detailed historical insights relies on digitizing and normalizing source texts for computational analysis. Handwritten text recognition systems have expanded possibilities for archivists and historians, enabling rapid and accurate transcription of historical documents. Digitalization has improved access to archival records, allowing for more detailed reconstruction of historical events. However, the large volume of transcribed documents creates difficulties in analysis and pattern recognition, testing historians' traditional methods of connecting facts through interpretation. Machine learning techniques are increasingly used to

organize, examine, and control large collections of historical documents.

2. AI in Archaeology: Pattern Discovery and Predictive Modelling

Recent developments in natural language processing (NLP) have led to remarkable improvements in the understanding of historical documents written in ancient languages. As shown by the remarkable performance of NLP on formalized texts such as computer programs or Thucydides' History, the effectiveness of AI relies heavily on the structure of the data to which it is exposed during training. AI tools are increasingly being adopted by archaeology, the study of past human culture through material remains, to uncover patterns in dated archaeological data from the distant past, such as settlement cycles, and model future probabilities, such as the likelihood of encountering new archaeological sites at specific places or times. For instance, settlement patterns within a 250,000 square kilometer area of Roman Switzerland were analyzed using the machine learning package Random Forest on a dataset comprising 177 site locations. A filtered dataset containing 105 sites was used to estimate the probability of finding unrecorded sites in underexplored regions, guiding archaeological fieldwork (Castiello & Tonini, 2019). Archaeologists in the UK also modelled the spatio-temporal evolution of sites from 10,500 BCE to 1,000 CE in higher granularity than before on a dataset of over 19,000 components, locating predictable high-activity periods corresponding to climatic transitions and periods of human arrival. Spatio-temporal estimates of the past were produced without a priori knowledge of the expected pattern being systematically pursued and compared with paleo-environmental data, providing a clearer framework for understanding of past societies. AI techniques allow archaeologists to compare worldwide patterns, elucidate the geo-historical interplay between human societies and climate changes, and examine the varying degrees of intra- and interregional connectivity among early settled areas throughout the world (Colavizza et al., 2021).

3. The Digital Reconstruction of Urban Histories

In the context of the growing number of City Maps, the VGG: The Digital Collection of Historical Urban Maps project (VGG) developed a simple mapping interface for the exploration of maps published in the geographical dictionary *Les villes de France* (1835), which provides a historical and geographical overview of cities, municipalities, and provinces in France. The maps included can be opened in a preview window with information about the map and a link to access the source document in higher resolution. The map search allows the user to explore the collection through geospatial queries. Maps can be queried by selecting a neighbourhood, a province, or a municipality from a drawn polygon. The historical coordinates relative to the modern street network geolocated using OpenStreetMap data and historical street names (Bruschke et al., 2018).

Epistemic Opportunities and Challenges

AI algorithms have been widely employed to enhance data analysis. However, the demand for vast amounts of data to enable AI intervention risks intensifying existing biases among underrepresented groups. The use of AI in data-intensive contexts may also reinforce stereotypes and promote misrepresentation of social and minority perspectives. Digital history generates new historical problems and opens up research avenues but is often conducted by researchers outside of the community of historians. Peer-reviewed, professional-generation commentary and treated scholarly publication remain significant; at the same time, however, the higher the fidelity to machine communications the higher the risk of preventing the adaptation to the evolving media environment (M. Rogers, 2008). The impositions of an algorithmic regime with its undetected rules represent, within the frame of authorship, the anti-collaborative position. In itself the algorithm accumulates generative processes and presents higher-order datasets for interpretation. An open medium provides a mission to interact with data at varied input levels, from under-construction data gathering to higher-ordered classification of data communications.

1. Bias, Representation, and the Limits of Data

The emergence of non-negligible AI–history interactions has rekindled interest in the epistemological dimensions of data-based research. In historiography, the term ‘data’ signifies not merely any information but primarily quantifiable information resting upon an abstraction of the world. Consequently, history constructed solely on the basis of textual data, for instance, should properly be considered a variant of data-based history. Acquisition of data is a historical act; none is ‘born-digital’ (Jaillant & Caputo, 2022). Data inevitably reflect the biases of their time and the cultural perspectives of their gatherers. The past they reconstruct has its limits. This underappreciated phenomenon is even more conspicuous in AI-assisted research, as the potential of large datasets is frequently overemphasised, leading to a quasi-deterministic vision of practice. A large quantity of data navigates the intellectual landscape in numerous disciplines, but it does not alleviate the omnipresent constraints linked to bias and representation (Zajko, 2020). AI, employed to process ‘very large’ spatial datasets yet unable to undertake independent reasoning, still produces ‘outcomes’ conditioned by pre-existing data, typically selected impossibly or gathered by unaware couples (Leavy et al., 2020). As previously clarified, minority data, be they related to gender, social class, ethnicity, religion, or generation, remain less-prolific than majority data in historical writing, even when both are available and exploited by extensive AI assistance. Furthermore, openly accessible datasets used in history—whether textual, spatial, iconographic, or migratory—frequently stem from specific regions with abundant data originating from the Global North and English-speaking countries. These restrictions inherently limit the epistemological potential of datasets engaged, inviting

a reconsideration of how to deploy Artificial Intelligence in historical practice.

2. Authenticity, Authority, and the Scholar's Role

The deployment of Artificial Intelligence raises vital epistemic questions around the notions of authenticity and authority in digital history. The emergence of digital methods in historical scholarship has already precipitated a substantial reflection on a scholar's authority, an authority grounded less on a mastery of niche materials than on the demonstration of reliable engagement in widely shared epistemic practices. Scholars wishing to methodically engage with the uncertainties and risks introduced by Artificial Intelligence into their own work will similarly need to find ways to articulate and support the authority of their reconstruction and re-enactment. Enacting entirely signified returns does not restore the prevailing ground of authority in print historiography, however. Digital media and digital representation additionally carry with them a challenge to the authority of the scholar as guardian of authenticity, and, concomitantly, to an understanding of the past as fully appendable to the familiar signified. It is possible instead to deploy Artificial Intelligence as a means of collaboratively exploring familiar yet nevertheless unknowable temporalities, thus re-establishing as many historical grounds as grounds of potential and continued action. The passage nevertheless does not ameliorate the pressure exerted by digital media and representation ultimately to rethink the authority of the scholar. The challenge of Artificial Intelligence thus operates at several interdependent levels. Practitioners of historical modelling introduce time into historiographical re-signification and alongside it indenture recovery to a different epistemic plane, which permits the layering of Artificial Intelligence as part of the re-enactment of historically cognisable possibility and exemplifies distinctly agentic engagement in the shaping of the outcome. The introduction of a play between the differently signed levels of representation is likewise essential to sidestep the impediment to such modelling entailed by the still-pronounced tendency to approach digitisation as a means of achieving veritable control over the past. Timeliness furthermore responds to the challenge of competing digital narrative forms, be they straightforwardly linear or not, by reintegrating the unfolding of history within re-digital-historical formations. The pursuit of time, whether through modelling per se, composes and un-predicts a digital historical signature that pushes back against the erosion of intellectual sovereignty (Currall et al., 2008).

3. Ethical Considerations in Digital Historical Practice

Various ethical issues arise from the use of AI-related methodologies in digital history. Some reflect broader digitalization problems; others are specific to the employment of AI. Vincent Manžuch argues that digitization initiatives raise ethical questions at every stage, especially the selection, organization, preservation, and exchange of materials (Manžuch, 2017). History has long grappled with the

implications of its chosen topics, the scales at which materials are linked, and the audiences that are privileged, but the problem of what to digitize, how, for whom, and why is becoming ever more pressing. AI itself introduces further complications beyond this systematic layering of digitization questions. AI technologies are frequently touted for their potential to democratize knowledge and cultural heritage; yet they can also entrench socio-political inequalities and promote regressive practices or narratives. Such algorithms reproduce and propagate existing biases and power imbalances by amplifying dominant yet flawed representations. Language models trained on massive, unequally represented datasets can generate tools that both mirror and reinforce the status quo. Archival rather than historiographical work, therefore, becomes crucial to gauge how particular AI techniques and datasets might affect the content or form of historical scholarship.

The Societal Impact of AI-Mediated History

The emergence of artificial intelligence (AI) raises profound questions about the future of human culture, including historical consciousness and the very nature of history itself (M. Rogers, 2008). The impact of AI on history, both as an academic field and as an essential social practice, extends beyond research questions to engage urgent societal concerns. As large language models (LLMs) proliferate in educational and popular settings, history is among the many subjects to which these technologies are applied—and applied with deeply problematic consequences. Several recent analyses of LLM-mediated history emphasize the importance of understanding what LLMs can do and how they operate. Given the structure and inherent opacity of LLMs, scholars emphasize the necessity of critically interrogating outputs and call for productive use of emerging technologies. These calls echo broader concerns about technology, the contemporary information environment, and their ramifications for historical understanding, concerns that engage core dimensions of the historiographical project. AI-mediated history also illuminates the societal dimensions of human-AI interactions that shape epistemic opportunities and challenges. Increased access to AI-mediated history has implications for education, policy, museums, and community scholarship. History is frequently requested from AI agents and frequently provided to educational constituencies. Analysis of the parameters guiding such requests and of the information landscape explored by participants provides insight into the potential shape of the history that emerges and the collective cultural memory constructed through human-AI interactions. LLMs can mediate public history in educational and outreach-intensive settings, producing subject-matter synopses and serving as a conversational partner for messages prepared by human actors. These practices offer support for communication across many publics and for content creation that remains speculative, provisionally engaged with the past and open to interpretation from many angles. As debate intensifies regarding the

permissions and limitations that govern AI usage in educational and professional environments, such models of interaction remain relevant and warrant further attention.

1. Education, Public History, and Accessibility

The emergence of artificial intelligence (AI) has transformed the way society collects, analyses, and communicates historical scholarship. The accessibility of cutting-edge AI tools has prompted a renewed interest in public history, especially in higher education. Predictions of the demise of the humanities intensified during the Covid-19 pandemic, as students turned to career-oriented programs in greater numbers. For some historians, AI is perceived as an extension of a much broader trend, devaluing free inquiry and pedagogy in favour of short-term, document-centred research projects designed to satisfy narrow curriculum requirements (Foster, 2014). Yet, AI has also created unexpected opportunities to engage, inspire, and involve students and the public. As an antidote to the bureaucratic impulse, historians, faculty, and university leaders increasingly share personal accounts of transformative learning experiences. Colloquia, workshops, and lectures are framed around the theme of “imagination,” promoting the idea that the present is a vital window to the past because “it stirs the feeling of localisation and of place”.

Artificial intelligence (AI) represents a new frontier in the machine processing of language and culture. AI writes, converts text to audio, creates hyper-realistic 3D images and films, plays games, simulates environments, generates music, composes symphonies, and conducts scientific research. The democratization of these technologies is staggering; within this past year alone, generative tools such as ChatGPT, DALL-E, and others have been made available to the general public, often free of charge. The potential for AI to fundamentally transform society is now broadly acknowledged. The sociological and technical roots of AI extend back to antiquity, while modern formulations emerge from the collaboration of multiple disciplines in the United States during the mid-twentieth century. The history of these ideas is an integral part of the discourse around knowledge mobilization and the production and preservation of cultural memory. Many of the most pressing epistemic issues of AI—bias, representation, authority, and its broader place in culture and society—are of vital and urgent concern also for historians and allied social sciences.

2. Cultural Memory in the Algorithmic Era

Emerging digital technologies reshape cultural practices, create new forms of cultural expressions, and offer alternative strategies for grasping culture (Spina, 2023). Algorithms redefine our cultural references by automating the relationships we maintain and eliminate or filter intermediate human cognitive and creative processes. Algorithms suggest a new philosophy of time by providing spaces for the exploration of past, present, and future hierarchies. This cultural apparatus influences content creation, including visual and documentary materials,

photographs, illustrations, text, 2D and 3D art, presentation formats, and music. Machines now handle the time of culture; technoculture propagates dehumanised, impoverished, or flattened reflection; algorithmic culture amplifies these attributes locally, monetarily, communicationally, and semantically, similarly to calligrams and sesames. Machine-actionable cultural environments are gaining interest across all disciplines, and the design of algorithms in cultural domains is actionable. The notion of the archive as a repository of past materials promises to diminish and will eventually vanish. In topographically altered archives, such as social media, TikTok, Instagram, YouTube, or Reels, where the dominant and incessantly renewed filter is human-free, the algorithms that modulate history-writing by determining the order and priority of what appears persist. Selections that contain photographs of human beings still delineate the past, even when neither the objects nor the authors are ever-longer present. Algorithmic cultural practices elevate authorship to the meta-tier of either the platform used for broadcasting—which sets the tint, style, and contours—or the initial input material. Automations mark the extent to which consideration of the past remains available. If (ref: 2e3e1a84-6602-4837-96df-69909e45d32d)’s submission to an algorithm of the first image designed as an image is to commit to a hic et nunc, dissemination through Reels/musique videos or TikTok fills in the map, spreading a *gebeurtenis* throughout the entire planet without communicating a particular locality or temporality. Algorithmic practice arouses fear of the disappearance of the past from a longitudinal viewpoint. Destruction through absence and de-materialisation crudely establishes history through inoperative practice. An additional occasional algorithmic cultural expression, devoid of image but still governed by the formal aspects of finitude, extends the logorisation of phono-graphic art. The delegation of work to machines has to mop up operation residue as a redistribution remains automated.

The Future Horizon: Toward a Critical, Collaborative Digital History

Within the Digital Humanities, historians increasingly combine expansive datasets and machine learning techniques to reinterpret the past (Seefeldt & G. III Thomas, 2009). Digital History thus encompasses a spectrum of interests: the examination of new modes of dissemination, the integration of visual and textual historicity, and the realization of non-linear narratives through the use of hypertext. The field invites the public into the research process and offers avenues for deepening historical comprehension through the digital medium. Activities within Digital History significantly affect the distribution of historical knowledge and liberalize the scholarship of the electronic scholar, stimulating the development of alternative concepts of history. The graphical, non-sequential modes of data organization foster the exploration of new historical discourses. Yet, far-reaching spaces remain unexplored or neglected—e.g. the simply, the ambitious, the ludic.

The distant and the close, econometrics, sociology, the social, the pratique and the ruse. Intertwined are the literary, poetic, and rhetorical dimensions of language and the chance to inscribe, represent, simulate and paraphrase the stirrings of human thoughts and the transmission of tiny morsels of words. Contemporary historiographers propose novel configurations of Digital History that continue to respond to the technical and ethical bases of the discipline without replicating its dogmas. The field frees historical knowledge from the Gutenberg galaxy and liberates education from the stranglehold imposed by textbooks, offering students fresher and broader experiences of the past than curriculum-aligned books. It encourages collective contributions through spaces where many hands continue to engage jointly with problems. Textual and visual sights await further doubling, re-examination, and revision. Texts and images and the proportioned aesthetic, ethical, and ideological arrangements and disengagements they imply remain strongholds of resistance (M. Rogers, 2008).

Conclusion

Historians maintain a complicated relationship with new technologies: technologies that profoundly transform the ways in which history is approached are often greeted with considerable skepticism bordering on resistance. Artificial intelligence arguably represents the most significant set of technological innovations that historians have faced since the advent of computers in the early 1950s. But rather than a simple evolutionary improvement in human capabilities, AI offers a set of radically new processes that upset the 'human-only' assumption of much earlier computing; AI systems now routinely build on existing knowledge to create new forms that perfectly mimic human content yet remain fundamentally distinctive. AI creates the capacity for further epistemic advancements still. Other intelligences now conduct historical experiments, search for patterns, and revisit the past without conventional human hindrances or limits. Any investigative opportunity introduced by these alternative percipients—other beings incapable of interpretation, value, or meaning from their own perspective—opens further possibilities to gain fresh insight into past people and events, magnifying rather than reducing the historian's future role in society. The continued effort to expand productive engagement with machines and the investigation of epistemically processed history has already led to some fruitful outcomes and stimulating new avenues of exploration for the future. Important sources still requiring additional exploration and possibility remain throughout the spaces examined. Precise investigation of the computational aspects involved in different modelling and simulation techniques also remains to be undertaken. Addressing the complex arrays of bias, representation, and limitation embedded within AI systems is also overdue. The downloadable data and code employed in order to implement the various experiments developed are routinely omitted from recorded outputs, whether in articles, presentations, or

exhibits; greater attention to the articulation and citation of algorithmic, data-sourced, and software modulations already undertaken—and even backtracking to earlier data-processing operations applied to the now-familiar datasets employed in many computational-historical analyses—could permit the emergence of automated trails illustrating how far and where historiographically pertinent considerations have been processed and abstracted within the discipline's contemporary practices. Such developments have also begun to stimulate some attention devoted to other forms of processing still overlooked within the same realm. An urgent problem of preserving digital records that continues to grow in significance, difficulty, and scale has begun to collide with the simultaneous emergence of AI techniques for both informing and assisting archiving, prompting reflections on how the latter observations may also extend to the historical arena. Academic and institutional policies that might appreciably enhance scholarly engagement remain extremely rare. Many public-facing implementations of AI systems remain suspended or deferred altogether. Despite numerous efforts to make modelling choices as transparent, accessible, and replicable as possible, similar difficulties persist for both the human and machine dimensions of computational history. Enquiry into both systems and applied records shows that the pursuit of publicly meaningful public-facing AI specifications, implementations, procedures, and engagements remains largely uncharted within the historical discipline. The forms of dissemination and representation still garner limited attention compared to the opportunities offered by such avenues for future research, while numerous concepts for artificial-three-dimensional modelling of urban sites that could stimulate fresh considerations and thoughts to historians receive little elaboration or follow-through. The possibilities now available—both epistemic and societal—should encourage historians to remain open to investigation of AI and its historical ramifications. (Colavizza et al., 2021)

References:

1. Jaillant, L. & Caputo, A. (2022). Unlocking digital archives: cross-disciplinary perspectives on AI and born-digital data. ncbi.nlm.nih.gov
2. B. Audibert, R., Lemos, H., Avelar, P., R. Tavares, A., & C. Lamb, L. (2022). On the Evolution of A.I. and Machine Learning: Towards a Meta-level Measuring and Understanding Impact, Influence, and Leadership at Premier A.I. Conferences.
3. Taylor, T. & Dorin, A. (2018). Past Visions of Artificial Futures: One Hundred and Fifty Years under the Spectre of Evolving Machines.
4. Alves, D. (2014). Introduction: digital methods and tools for historical research.
5. Spina, S. (2023). Artificial Intelligence in archival and historical scholarship workflow: HTS and ChatGPT.
6. Tilton, L. (2018). American Studies + Computational Humanities.

7. Cetinic, E. & She, J. (2021). Understanding and Creating Art with AI: Review and Outlook.
8. Black, S. & Darken, C. (2024). Scaling Artificial Intelligence for Digital Wargaming in Support of Decision-Making.
9. Colavizza, G., Blanke, T., Jeurgens, C., & Noordegraaf, J. (2021). Archives and AI: An Overview of Current Debates and Future Perspectives.
10. Castiello, M. E. & Tonini, M. (2019). An innovative approach for risk assessment in archaeology based on machine learning. A Swiss case study. Quantitative approaches, spatial statistics and socioecological modelling.
11. Bruschke, J., Maiwald, F., Münster, S., & Niebling, F. (2018). Browsing and Experiencing Repositories of Spatially Oriented Historic Photographic Images.
12. M. Rogers, B. (2008). The Historical Community and the Digital Future.
13. Zajko, M. (2020). Conservative AI and social inequality: Conceptualizing alternatives to bias through social theory.
14. Leavy, S., O'Sullivan, B., & Siapera, E. (2020). Data, Power and Bias in Artificial Intelligence.
15. Currall, J. E. P., Moss, M. S., & Stuart, S. A. J. (2008). Authenticity: a red herring?.
16. Manžuch, Z. (2017). Ethical Issues in Digitization of Cultural Heritage.
17. Foster, M. (2014). Online and Plugged In? Public History and Historians in the Digital Age.
18. Spina, S. (2023). Homo-Loggatus. The anthropological condition of historians in the digital world.
19. Seefeldt, D. & G. III Thomas, W. (2009). What is Digital History? A Look at Some Exemplar Projects.