Systematic review of archivists' evolving ethics in the age of artificial intelligence

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Abstract

The development of artificial intelligence (AI) in the field of archiving raises new ethical challenges, such as algorithmic bias, loss of human context, and unclear accountability. Therefore, a systematic literature review is needed to understand how the ethics and professional values of archivists evolve in the face of AI-based digital transformation. This study aimed to determine how the ethics and professional values of archivists evolved in the era of artificial intelligence through an analysis of thematic patterns, ethical issues, and strategic responses that arose from human and AI interactions in archival practice. This study used the systematic literature review (SLR) method with reference to the PRISMA protocol. A total of 50 indexed and peer-reviewed journal articles published between 2018 and 2025 were analyzed, obtained from academic databases such as Scopus, SpringerLink, and Taylor & Francis. The analysis revealed five key domains: shifting roles and identities of archivists, reconfiguration of ethical principles in digital practice, dynamics of human–AI collaboration, reconstruction of professional values in an AI-based ecosystem, and strategic implications for strengthening the profession. The study concludes that archivists not only need to adapt to AI but also play an active role in guiding its implementation through ethical design, enhancing digital and ethical literacy, and updating professional codes of conduct. These efforts are essential to maintaining public trust, ensuring professional accountability, and ensuring the sustainability of the archivist's role in an increasingly automated digital society.

Keywords: Archival ethics; Artificial intelligence; Professional values; Digital archives; Social responsibility

Tinjauan literatur tentang etika dan nilai arsiparis di era kecerdasan buatan

Abstrak

Perkembangan kecerdasan buatan (Artificial Intelligence/AI) dalam bidang kearsipan menimbulkan tantangan etis baru, seperti bias algoritmik, hilangnya konteks manusiawi, dan ketidakjelasan akuntabilitas. Oleh karena itu, tinjauan literatur sistematis diperlukan untuk memahami bagaimana etika dan nilai profesional arsiparis berkembang dalam menghadapi transformasi digital berbasis AI. Kajian ini bertujuan untuk mengetahui bagaimana etika dan nilai profesional arsiparis berkembang di era kecerdasan buatan melalui analisis terhadap pola tematik, isu etis, dan respons strategis yang muncul dari interaksi manusia dan AI dalam praktik kearsipan. Penelitian ini menggunakan metode systematic literature review (SLR) dengan mengacu pada protokol PRISMA. Sebanyak 50 artikel jurnal terindeks dan ditinjau sejawat yang diterbitkan antara tahun 2018 hingga 2025 dianalisis, yang diperoleh dari basis data akademik seperti Scopus, SpringerLink, dan Taylor & Francis. Hasil analisis mengungkap lima domain utama: pergeseran peran dan identitas arsiparis, rekonfigurasi prinsip etika dalam praktik digital, dinamika kolaborasi manusia–AI, rekonstruksi nilai profesional dalam ekosistem berbasis AI, serta implikasi strategis bagi penguatan profesi. Studi ini menyimpulkan bahwa arsiparis tidak hanya perlu beradaptasi terhadap AI, tetapi juga harus berperan aktif dalam mengarahkan penerapannya melalui desain etis, peningkatan literasi digital dan etika, serta pembaruan kode etik profesional. Upaya ini penting untuk menjaga kepercayaan publik, menjamin akuntabilitas profesional, dan memastikan keberlanjutan peran arsiparis dalam masyarakat digital yang semakin terotomatisasi.

Kata kunci: Etika kearsipan; Kecerdasan buatan; Arsip digital; Systematic literature review; Nilai profesional

INTRODUCTION

Advances in Artificial Intelligence (AI) technology have brought profound transformations across sectors, including the domain of archival science. AI-based systems are no longer just tools for classifying and storing documents; they now reshape the way archival records are accessed, interpreted, and governed, thereby altering the functions, responsibilities, and core values of the archival profession (Atah & Akeke, 2024; Bradley, 2022). Archivists are increasingly positioned not only as custodians of records but also as ethical agents who participate in data-informed decision-making and uphold informational integrity in increasingly automated ecosystems. This ongoing transformation introduces complex ethical, professional, and epistemological challenges. Studies have shown that while AI can enhance access and efficiency, it also poses risks related to algorithmic opacity, representational bias, and diminished human oversight (Baird & Schuller, 2020; Bernard & Balog, 2025). These concerns underscore the importance of ethical deliberation and critical thinking in designing and implementing AI systems in archival settings. When developed with accountability and transparency in mind, AI has the potential to support rather than erode the profession's fundamental values. Concerns about the ethics of archival practice are not new. Foundational scholars such as Terry Cook (2011) and Verne Harris (2002) have emphasized that archival work is shaped by power, memory politics, and moral responsibility ty far from the neutral or purely administrative task it is often assumed to be. Their insights remain deeply relevant today, as AI introduces new ethical risks and amplifies longstanding dilemmas regarding representation, autonomy, and accountability. Several studies have examined the implications of AI for archival workflows, access models, and metadata generation (Bradley, 2022; Baird & Schuller, 2020). However, most of these works focus on the technical or operational aspects, with limited attention to the evolving ethical discourses and value systems underpinning the archival profession. Theoretical frameworks such as professional ethics, algorithmic accountability, and value-sensitive design are crucial perspectives through which to understand these transformations critically.

From an educational and strategic perspective, archivists must also become literate in the principles and implications of AI in order to engage meaningfully with emerging technologies. The need for ethically informed AI-literate professionals is critical to the future of archival governance (Biagini, 2025). Consequently, there is a pressing need to revisit and potentially reconstruct the professional ethos that underpins archival work. Unlike prior research that predominantly explores AI through the perspective of implementation or impact, this study specifically investigates how AI influences the normative foundation, ethics, identity, and responsibility of archival work through a structured synthesis of scholarly discourse. As professional roles evolve, the ethical frameworks that guide archival practice must also evolve. The relevance of longstanding values such as professionalism, accountability, and inclusivity must be reconsidered in light of AI-mediated decision-making. This article presents a conceptual synthesis based on 50 systematically selected peer-reviewed studies to examine how AI integration is reshaping the archival profession. Five key

thematic areas are explored: (1) the evolution of roles and identities, (2) professional ethics in digital practice, (3) human–AI collaboration, (4) reconstruction of professional values and ethos, and (5) strategic implications for professional development and archival governance.

Given these dynamics, this study seeks to explore a fundamental question: How has the integration of artificial intelligence reshaped ethical principles, professional identities, and institutional responsibilities in the archival profession? By addressing this question through a systematic literature review, this article aims to illuminate the ethical challenges and strategic directions needed to ensure responsible and value-aligned archival practices in the AI era.

RESEARCH METHODS

This study employed a Systematic Literature Review (SLR) approach to investigate the evolving ethics and professional values of archivists in the age of artificial intelligence (AI). It aimed to construct a conceptual understanding of how roles, identities, and responsibilities in the archival profession were being reshaped in digitally mediated environments. To ensure methodological transparency, the study followed the PRISMA 2020 (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework developed by Page et al. (2021), which structures the literature selection and evaluation process into four sequential phases: identification, screening, eligibility assessment, and final inclusion. A comprehensive search was conducted across reputable academic databases, including Scopus, SpringerLink, SAGE Journals, Taylor & Francis Online, Wiley Online Library,

JSTOR, ERIC, SCIRP, and Google Scholar. The search targeted English-language journal articles published between 2018 and 2025, reflecting the surge in AI discourse, particularly after the COVID-19 digital transition. Boolean operators were used to refine keyword combinations such as "archival ethics," "artificial intelligence," "digital records," "professional identity," and "algorithmic governance." For example, in Scopus, the query ("artificial intelligence" AND "archivist") yielded 108 results; ("AI" AND "archival ethics") yielded 96; and ("algorithmic governance" AND "professional values") yielded 67. These samples illustrated the relative results of specific combinations. The full identification stage produced 412 articles, aggregated from multiple platforms and extended keyword variations, including related concepts such as "digital preservation," "AI ethics in archives," and citation-based suggestions. The data analysis in this study employed a thematic synthesis approach based on selected literature sourced from multiple scholarly databases. The initial identification phase yielded 412 records, which were imported into the Mendeley reference management software. To ensure transparency and traceability of the review process, the researcher removed 46 duplicate entries and out-of-scope publications (outside the 2018–2025 time frame), leaving 366 records for further screening.

Next, the researcher conducted an abstract screening to assess thematic relevance to the study's focus. This process identified 167 potentially eligible articles, which then underwent full-text review. At this stage, 117 articles were excluded due to reasons such as lack of peer review or

misalignment with the study's ethical and professional scope.

Ultimately, 50 peer-reviewed journal articles were retained and served as the foundation for the coding, thematic categorization, and synthesis processes.

The complete selection and exclusion procedure is visually illustrated in Figure 1, ensuring procedural rigor and transparency, and allowing future researchers to replicate the process clearly.
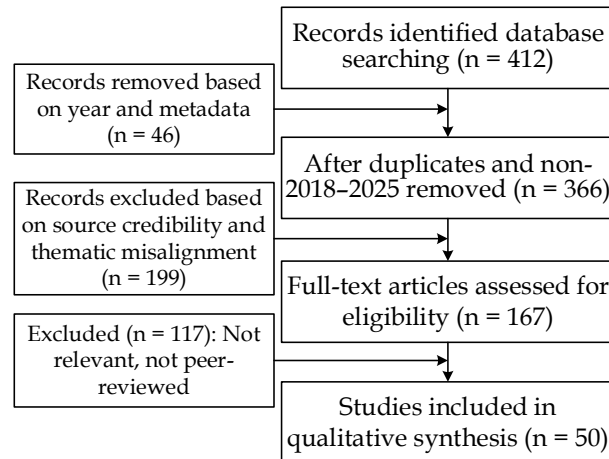

Figure 1. PRISMA Flow Diagram: Article identification, screening, eligibility, and inclusion
Source: Page et al., 2021

RESULT AND DISCUSSION

The integration of artificial intelligence (AI) into digital archival systems has instigated a fundamental transformation in the roles, expectations, and ethical responsibilities of archival professionals. Archivists are no longer viewed solely as custodians of historical records but as active participants in shaping digital memory, curating information legitimacy, and ensuring the ethical design and use of algorithmic systems. This paradigm shift compels the archival profession to reassess its foundational principles and redefine its public value in relation to the emerging sociotechnical context. Faulconbridge et al. (2021) emphasize that professional identity is not only constructed through technical expertise but is also shaped by how practitioners position their roles in response to social, institutional, and epistemological changes. In the archival field, this manifests in a movement from passive information management to active involvement in digital governance.

Archivists must now grapple with questions of accountability, bias, and representation as AI systems influence the visibility and retrieval of archival content. Jaillant and Rees (2023) highlight that archivists play a critical role in mitigating algorithmic harm by participating in the design of ethical metadata standards and ensuring that classification systems do not reinforce historical inequalities. Besio et al. (2024) argue that AI introduces a need for "algorithmic responsibility," whereby archivists must investigate the logic behind automated systems rather than treating them as neutral tools. This responsibility involves understanding how AI models prioritize or suppress particular records, how biases in training data can distort historical narratives, and how automation may displace human discretion in appraisal or access decisions. Accordingly, archivists are called to develop AI literacy alongside their archival competencies to ensure that ethical oversight is not outsourced to the

system but remains a core professional function.

Cameron et al. (2023) propose the use of "paradata" as a form of procedural documentation to make AI-driven decision-making in archives transparent and traceable. Paradata supports the reflexivity of archival systems by preserving how and why records are sorted, ranked, or excluded, an essential safeguard in maintaining user trust and scholarly rigor. Complementing this, Green (2025) advocates for responsive visualization tools, especially in complex datasets like email archives, to enhance interpretability and support ethical engagement by users and archivists. Another critical dimension of evolving professional identity is collaboration. Fasting & Breilid (2024) observe that cross-sector partnerships with technologists, legal experts, and educators enhance the legitimacy of archival interventions in AI contexts. These collaborations foster inclusive problem-solving, amplify marginalized perspectives, and ground technological development in real-world institutional constraints. As AI systems become increasingly embedded in archival infrastructures, these interdisciplinary networks become vital for preserving democratic access to memory and upholding archival integrity. Educational reform is also central to this transformation. Hernandez & Rockembach (2025) argue that archival training programs must integrate modules on algorithmic governance, ethical auditing, and digital rights. Without a grounding in these areas, future archivists may lack the conceptual tools to critique AI systems or intervene effectively in their development. Professional organizations are thus urged to revise competency frameworks, expand continuing education

opportunities, and promote a shared ethical vocabulary across domains. Longstanding debates over neutrality and objectivity in archival practice compound the ethical stakes of AI adoption. Cushing and Osti (2022) note that many archivists are rejecting traditional claims of impartiality in favor of more participatory and justice-oriented approaches. This includes acknowledging how archives have historically silenced marginalized groups and how new technologies might perpetuate that silence if left unexamined.

The future of archival professionalism demands a hybrid identity that integrates archival theory, technological fluency, and ethical reflexivity. As illustrated by Bowers et al. (2024) through the concept of "dark archive" infrastructures, archivists are now tasked with ensuring digital preservation and ethical oversight. In this reoriented paradigm, trust, transparency, and interdisciplinary awareness become core competencies. AI is not merely transforming workflows but also expanding the ethical and social responsibilities of archivists, positioning them as stewards of data and values in a rapidly evolving digital landscape.

The increasing integration of artificial intelligence (AI) into archival systems has significantly altered the ethical landscape of digital archival practice. Traditional principles such as fairness, accountability, and transparency now face complex reinterpretations in the context of algorithmic governance. Ethical reflection is no longer limited to internal codes but must extend to include systemic critiques of AI technologies, their design, and social impact. This shift marks a critical transition from procedural compliance to proactive ethical engagement, compelling archivists

to become agents of technological scrutiny and social accountability.

In practice, archivists must now contend with ethical dilemmas related to data bias, opaque decision-making, and the potential reinforcement of historical inequities through AI tools. Jaillant & Caputo (2022) caution that AI systems trained on biased historical records may perpetuate exclusions, especially if archivists are not involved in the dataset construction. These concerns underscore the importance of embedding inclusive values and social accountability in the architecture of digital repositories. Meanwhile, Jaillant (2022) identifies tensions between privacy and access in "dark archives," highlighting the ethical need for archivists to balance sensitivity with transparency in AI-driven access systems. Addressing these issues requires a reconceptualization of ethical competence. Mannheimer et al. (2024) propose an "Ethical Reflection Aid" to support archivists in navigating the complexity of computational archival science. Their framework emphasizes contextual evaluation, critical awareness of AI's limitations, and participatory ethics. Similarly, Järvelä et al. (2023) explore how AI–human collaborations should be guided by socially shared regulation, ensuring that technology augments rather than displaces professional judgment. This social dimension of ethics demands engagement with broader cultural, psychological, and epistemological contexts in which archivists operate.

Professional education and capacity building also play a central role. Lemieux & Marciano (2025) argue that ethical literacy should be integral to computational archival science curricula, stressing that ethics is not ancillary to technical skills but fundamental. This perspective aligns with insights from Maghfiroh et al. (2023), who highlight the significance of future-ready digital competence, encompassing not only tools and platforms but also the ethical reasoning necessary for responsible decision-making. Equipping future archivists with conceptual and operational skills ensures their readiness to handle rapidly evolving AI technologies in ethically resilient ways. Furthermore, the ethical implications of AI applications extend beyond internal practices to institutional governance. Ma et al. (2022) examine the use of autonomous archiving systems in university archives and raise concerns about over-reliance on automated decision-making. Their findings point to the need for strong human oversight, institutional policy reform, and ethical protocols to regulate machine autonomy. Without such safeguards, trust in archival integrity may erode, undermining public confidence in digital stewardship and weakening the legitimacy of institutional memory practices. Transparency and accountability remain non-negotiable pillars of archival ethics. Knight et al. (2025), in a scoping review of AI incident repositories, demonstrate that system failures often stem from insufficient ethical anticipation during system design. Their analysis calls for greater reflexivity, stakeholder engagement, and the integration of ethical impact assessments in archival AI development. The analysis also emphasizes the need for continuous feedback and adaptive ethical frameworks that can evolve alongside technological innovations and societal expectations. An earlier work by Jaillant (2019) reinforces the need to reflect on ethical legacies in digital transitions.

Drawing on experiences from managing literary and publishers' archives,

she notes that the assumptions embedded in legacy systems, such as exclusionary taxonomies, may be inadvertently preserved in AI systems unless actively deconstructed. This historical continuity highlights the significance of archivists' ethical awareness in mitigating harm and ensuring that digital infrastructures do not replicate the blind spots of analog predecessors. In sum, the ethical dimension of digital archival practice must be reconceived as a living framework, responsive to the ever-evolving technological, institutional, and social dynamics. Ethical action in the AI age requires archivists not only to follow codes of conduct but also to critically assess the sociotechnical systems they engage with, advocating for inclusive, transparent, and accountable archival ecosystems. As shown in Table 1, five thematic shifts redefine archival ethics in AI contexts: neutrality becomes proactive ethical engagement; transparency entails explainability; fairness includes bias mitigation; accountability extends to human–machine systems; and autonomy requires digital literacy. These principles are not just conceptual but also operational. For example, integrity now includes algorithmic auditability, while access and fairness demand attention to AI-driven bias. Collectively, these shifts reflect the integration of ethical reflection into the design and oversight of intelligent archival systems.

Table 1

Principles of archival ethics in the age of artificial intelligence

Ethical Principle	Traditional Archival Context	AI-Era Archival Context
Integrity	Preserving the authenticity and reliability of physical records	Ensuring algorithmic transparency and accountability in digital systems
Access & Fairness	Equal, non-discriminatory access to archival materials	Inclusive, bias-aware AI access protocols that protect vulnerable user groups
Professional Independence	Decision-making autonomy in archival appraisal and description	Human oversight in AI-assisted classification and decision-making processes
Transparency	Open the documentation of archival procedures	Explainability and auditability of AI tools and metadata systems
Social Responsibility	Preserving collective memory and cultural heritage	Addressing algorithmic bias, digital exclusion, and ethical representation in archives

Source: Jaillant (2019) and Cushing & Osti (2022

The increasing presence of artificial intelligence (AI) in archival practices has blurred the boundaries between human expertise and algorithmic autonomy. AI is now used in tasks ranging from classification to metadata creation, prompting archivists to renegotiate their roles as ethical agents in technologically mediated environments. Scholars argue that a partnership model in which AI complements rather than replaces professional judgment. Such collaboration demands that AI systems are designed with transparency, interpretability, and ethical responsiveness in mind, ensuring that automation enhances rather than undermines human agency. Morley et al. (2020) highlight the importance of translating high-level ethical principles into concrete, context-sensitive practices,

particularly for professionals working in archival environments shaped by complex value systems. This process requires archivists to not only understand how AI functions but also to shape how it is deployed, embedding their domain expertise into system design, oversight, and continuous evaluation.

Collaboration also requires technological fluency and interdisciplinary awareness. M'kulama & Bwalya (2024) emphasize that AI systems in national archives still depend on human intervention for metadata quality and record authenticity, particularly when documents relate to cultural memory or national identity. Their study reinforces the point that critical human review is not optional but essential for upholding archival standards. Similarly, Novo & Ochôa (2023) warn that digital convergence across archives, libraries, and museums must be grounded in critical digital literacy. Archivists must not only operate AI tools but also investigate their structural biases and limitations to ensure ethical use.

Institutional and professional readiness further determines the quality of AI-human interaction. Ostanina et al. (2023) argue that successful implementation relies on strengthening digital competence and fostering attitudinal change within archival institutions. Without these competencies, even the most advanced AI applications are at risk of being misused or underutilized. Pansoni et al. (2023) echo these concerns by calling for an ethical framework embedded in AI projects in the cultural heritage context. They propose integrating humanistic principles into algorithmic systems to support socially responsible archival practices. Table 2 summarizes the evolving functional roles of archivists in AI-augmented contexts. The traditional role of Custodian, focused on preservation, remains essential but is now complemented by three emerging functions, as Knowledge Mediators, archivists enhance access and interpretability across digital systems. The Ethical Guardian role reflects growing responsibility for privacy, fairness, and bias mitigation. Eventually, as an AI Partner, archivists engage in the design and oversight of intelligent systems, contributing ethical and contextual insight. These roles highlight a shift from passive stewardship to active, interdisciplinary collaboration in shaping ethical digital infrastructures.

Table 2.

Evolving Functional Roles of Archivists in the Age of AI

Role Category	Description
Custodian	Preservation of records; maintains and protects archival materials.
Ethical Guardian	Championing digital rights and ethics; ensures data privacy and biases are addressed.
Knowledge Mediator	Facilitates access and understanding; enhances discoverability and user engagement.
AI Partner	Engages in human–AI collaboration; contributes to the design and oversight of AI systems.

Source: Morley et al. (2020); M'kulama and Bwalya (2024); and Pansoni et al. (2023)

At the systems level, Owens & Padilla (2021) advocate for the integration of ethical reflection directly into digital infrastructure. They argue that AI-enabled archival systems must maintain transparency and traceability to preserve

evidential value and user trust. Similarly, Pacheco et al. (2023) present a metadata model that addresses authenticity issues and emphasizes human agency in AI-generated descriptions. These perspectives reaffirm that archivists must lead not only in curatorial judgment but also in defining how digital systems operate within ethical boundaries.

Mordell (2019) conceptualizes archives as "big data," warning that algorithmic logic can obscure provenance and contextual nuance. He emphasizes the importance of professional interpretive authority to prevent decontextualized or misleading archival outputs. This view underscores that algorithmic outputs should be seen as provisional rather than definitive, subject to critical human validation. Briefly, human–AI collaboration in archival work is not merely a technical adjustment but an ethical transformation. Professionals must actively shape the technological design and institutional policies, embedding fairness, explainability, and social responsibility into archival ecosystems. This collaboration should be informed by ongoing dialogue between archival science, computer science, and humanities disciplines. Institutional support, critical pedagogy, and participatory development models will be crucial to ensuring AI becomes a true partner in inclusive and equitable knowledge management.

The integration of artificial intelligence (AI) into archival ecosystems has challenged longstanding professional values such as neutrality, authenticity, and evidentiary objectivity. These values, once regarded as universal and immutable, are increasingly contested in data-driven environments where AI systems influence classification, appraisal, and curation. Rather than static, the archival ethos must be understood as evolving, responsive to new sociotechnical realities and capable of integrating critical inclusivity, equity, and transparency. Rolan et al. (2019) argue that the very notion of neutrality becomes problematic in AI-mediated systems, where bias may be embedded in datasets, algorithms, or decision pathways. This demands a shift in professional identity from passive custodianship to reflective and critical engagement. Archivists must not only manage digital records but also interpret and shape their ethical impact. As Stahl (2022) notes, transitioning from "computer ethics" to an "ethics of digital ecosystems" requires an institutional culture that prioritizes systemic responsibility over technical compliance. Figure 3 presents a timeline illustrating how archival values have evolved alongside technological advancement, from the traditional custodial model to a framework emphasizing co-governance, ethical design, and participatory knowledge systems.
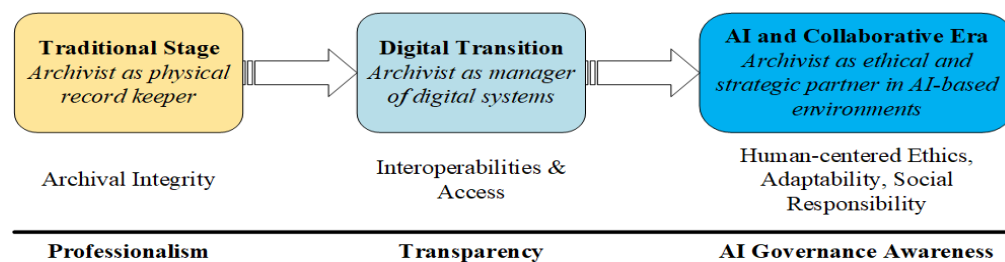

Figure 3. Evolution of Archival Roles and Ethical Values in the Age of Artificial Intelligence
Source: Rolan et al. (2019); Stahl (2022); and Teel (2024).

Within this shift, archivists are expected to engage in ethical discourse surrounding AI deployment actively. Teel (2024) highlights the role of archivists in preventing the erasure of underrepresented voices in automated preservation processes. This ethical role necessitates human judgment not only in selecting what to preserve but also in how it is represented and accessed. Subotić (2021) reinforces this by asserting that archival work in politically sensitive contexts demands conscious ethical framing to avoid complicity in systemic violence. Schneider et al. (2019) emphasize that AI cannot fully grasp the nuances required in appraising sensitive communications, such as emails in literary archives. Professional discretion, based on ethical reasoning, remains indispensable. This point aligns with Soudi & Bauters (2024), who advocate "ethical readiness" in small institutions adopting AI - an approach that combines training, clear guidelines, and collaborative oversight. Each role listed in Table 3, such as Ethical Interpreter, AI-Literate Collaborator, and Inclusive Memory Curator, represents a functional expansion of archival work. The Ethical Interpreter role highlights the archivist's responsibility to evaluate AI outcomes through a moral lens. The AI-Literate Collaborator works across disciplines to shape system behavior and embed ethical safeguards. Meanwhile, the Inclusive Memory Curator ensures that digital archives reflect diverse narratives and do not perpetuate exclusion. These roles collectively underscore a redefinition of archival professionalism: one that blends technical fluency with ethical reflexivity and social accountability.

Table 3

Emerging Archival Roles in the Age of Artificial Intelligence

Role Category	Description
Ethical Interpreter	Archivists act as moral agents who critically assess AI-driven decisions, ensuring alignment with archival values and social justice.
AI-Literate Collaborator	Professionals who work side-by-side with developers, data scientists, and interdisciplinary teams to ensure ethical system design and trustworthy automation.
Metadata Strategist	Archivists who manage and evaluate metadata generated by AI safeguarding contextual accuracy, provenance, and usability.
Human Oversight Facilitator	Roles that involve mediating between automated workflows and human judgment, maintaining transparency and control in decision-making.
Inclusive Memory Curator	Archivists are ensuring that digitization and AI systems represent diverse narratives, protecting marginalized histories from algorithmic erasure.
Policy and Advocacy Actor	Archivists engaged in shaping institutional policies, ethical guidelines, and public discourse on AI implementation in archival governance.

Source: Soudi & Bauters (2024); Schneider et al. (2019); and Subotić (2021)

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Tella et al. (2022) also introduce the concept of blockchain integration in archives, identifying a new layer of accountability through decentralized verification. However, they emphasize that professional development and values-based leadership should accompany technological innovation. Ryan (2020), in his analysis of AI ethics, warns against blind trust in automation, urging professionals to preserve their evaluative authority.

Ultimately, Tesar (2018) reminds us that ethics in archival work is not abstract; it is enacted in every decision about inclusion, access, and representation. Truth in archives is not fixed but is constructed through critical engagement with human and non-human agents.

In sum, reconstructing archival ethos in the AI era is not about discarding traditional values but adapting them to new ethical terrains. This transformation places archivists at the intersection of history, technology, and justice, requiring not only new competencies but also renewed commitments to democratic memory and inclusive knowledge production.

Artificial intelligence (AI) is reshaping the archival profession, expanding its scope from traditional custodianship toward strategic, ethical, and policy-oriented roles. As intelligent systems increasingly mediate access, appraisal, and preservation, archivists are required to navigate complex sociotechnical environments. This transformation compels a redefinition of professional priorities, where technological proficiency must be complemented by ethical foresight, institutional reflexivity, and collaborative capacity. Strategic governance is critical in this new landscape. Vössing et al. (2022) emphasize that effective human–AI collaboration relies on system transparency, underscoring the need for clear communication interfaces and explainability features. When applied to archives, this principle calls for systems that support accountability while respecting the interpretive authority of archivists. Similarly, Yan et al. (2024) warn of the epistemic risks posed by large language models (LLMs), including bias amplification and contextual erosion. Their findings suggest that archival governance must move beyond compliance toward proactive ethical intervention and risk anticipation. At the institutional level, ethical integration must be embedded not only in AI tools but also in organizational routines and decision-making processes. Willem et al. (2025) propose a practical ethics toolbox for AI deployment in healthcare that can be adapted for archival governance. Their framework centers on stakeholder participation, contextual sensitivity, and anticipatory regulation, values equally relevant in archival domains. This approach advocates reflexive protocols that allow archivists to critically engage with emerging systems and intervene in cases of ethical ambiguity. The ethics of AI in cultural heritage is not a secondary concern but a strategic imperative. Tiribelli et al. (2024) highlight that the digitization of heritage must be guided by principles of inclusivity and fairness, especially as AI systems risk perpetuating exclusionary narratives. Archives, as stewards of collective memory, bear the responsibility of ensuring that algorithmic mediation does not marginalize vulnerable voices. Thylstrup (2022) further argues that data governance in machine learning must consider political erasures and residual traces, urging institutions to protect records that automated systems may otherwise suppress.

Professional resilience also depends on educational reform. Yadav (2022) underscores the importance of digital competence for LIS graduates, including ethical reasoning and AI literacy. These competencies are vital for archivists who must engage with AI not just as users, but also as co-designers of sociotechnical systems. Building on this, Tzouganatou (2022) calls for a rebalancing of openness

and privacy, especially in born-digital archives. Her insights emphasize the need for contextual assessment when developing access policies in AI-mediated platforms.

Institutional accountability must also address algorithmic gatekeeping. Van Otterlo (2018) critiques the opacity of automated decision-making in archival settings, cautioning against the uncritical adoption of AI for appraisal or access control. The study advocates for human-in-the-loop designs where archivists retain authority over ethically sensitive determinations. This perspective resonates with the findings of Tukur et al. (2023), who

identify privacy and surveillance concerns in immersive digital environments. Their work reinforces the necessity of comprehensive policy frameworks that embed ethical design from the outset.

Figure 4 visualizes the strategic layers involved in AI-integrated archival governance, combining ethical, institutional, and educational dimensions. This diagram serves to conceptualize how archivists are shifting from a custodian role to a mediator, advocate, and system designer role in a complex digital ecosystem.
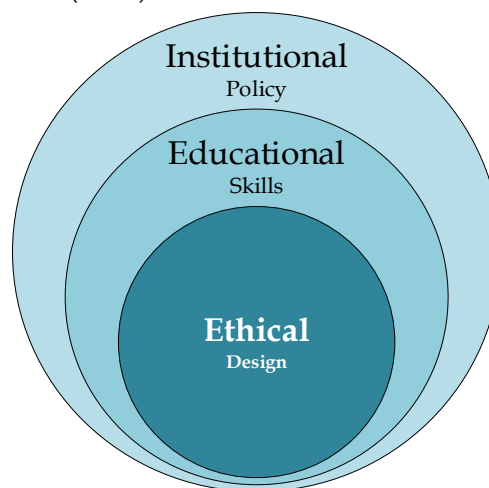

Figure 4. Strategic Layers for Ethical AI Integration in Archival Governance (Source: Vössing et al. (2022); Willem et al. (2025); and Yan et al. (2024)

Table 3 outlines core challenges and actionable strategies for strengthening the profession's resilience. It emphasizes three clusters: (1) ethical integration in AI workflows, (2) capacity building through interdisciplinary education, and (3) institutional accountability in policy and governance. These challenges underscore the urgency of redefining ethical engagement beyond individual responsibility toward institutionalized standards and policies. For example, ethical integration in AI workflows requires not only technical transparency

but also participatory design that includes archivists as co-decision makers. Capacity building must go beyond technical training and incorporate ethical reasoning and critical data studies. Meanwhile, institutional accountability must be operationalized through clear governance structures, regular auditing mechanisms, and the alignment of archival policies with broader digital rights frameworks. These strategies aim to build long-term resilience and safeguard the ethical legitimacy of the archival profession in an AI-driven environment.

Table 4

Strategic Levers for Strengthening the Archival Profession in the AI Era

Dimension	Challenge	Strategic Focus
Ethics	Algorithmic opacity and bias	Embed explainability, participatory oversight
Education	Skills gap in AI literacy and ethics	Reform curricula; foster interdisciplinary learning
Governance	Weak policy frameworks	Co-develop adaptive, inclusive regulation

Source: Thylstrup (2022); Tiribelli et al. (2024); van Otterlo (2018); Tzouganatou (2022); Vössing et al. (2022); and Willem et al. (2025)

Taken together, these studies show that the archival profession is not merely adjusting to AI but is also undergoing a normative and operational transformation. The future of archives will not be defined by technological capacity alone but by the extent to which ethical, strategic, and human-centered values guide that transformation.

In the Indonesian context, institutions such as the National Archives of the Republic of Indonesia (ANRI) and the National Library have launched digital repository initiatives. However, their integration with ethical AI frameworks remains limited, underscoring the urgent need for context-sensitive ethical standards, targeted training programs, and institutional alignment with AI governance principles.

CONCLUSION

The study, Evolving Archivists' Ethics and Values in the Age of Artificial Intelligence, concludes that AI has fundamentally transformed the ethical foundations and professional roles of archivists, shifting them from passive custodians to active ethical agents and collaborators in system design. In response to the first research question, the study finds that AI challenges traditional archival principles such as neutrality, transparency, and accountability, requiring reinterpretation within algorithmic contexts. Regarding the second question, it reveals that archivists must develop AI literacy and ethical reflexivity to navigate evolving professional expectations. The third question is addressed through the identification of strategic levers, ethics, education, and governance that institutions must operationalize to ensure responsible AI adoption in archival practice. Future research should explore localized models of ethical AI integration in archives, particularly in non-Western and under-resourced contexts.

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