

The Human-AI Interface: Socio-Technical Challenges in Implementing Generative AI for Project Documentation and Governance

Bela Lestari Dwireja., Fatma Mohsin Hassan Abdalla., Liu Yuhang., Normal Binti Mat Jusoh

Azman Hashim International Business School (AHIBS), Universiti Teknologi Malaysia, Malaysia

DOI: <https://doi.org/10.47772/IJRISS.2026.100700669>

Received: 23 July 2026; Accepted: 28 July 2026; Published: 10 August 2026

ABSTRACT

The advent of Generative Artificial Intelligence (GenAI) is reshaping the landscape of project documentation and governance, offering benefits in automation, knowledge management, and decision support. But, the success of organizational adoption is not just about technology, it is also about collaboration between humans and AI, organizational governance, and socio-technical integration. This paper offers an exploratory literature review of the socio-technical issues involved in the adoption of GenAI tools in project documentation and governance. The relevant, peer-reviewed studies were identified in a structured search of the Scopus database, then screened with predetermined inclusion and exclusion criteria and assessed by means of a structured quality assessment framework. The selected studies were then analysed inductively to synthesise common challenges in implementation, prevailing research themes and conceptual links.

The review synthesizes the literature into three interdependent pillars of responsible use of GenAI: technological trust and transparency, Human-AI collaboration and organizational governance. GenAI has great promise in enhancing the efficiency of documentation processes, organizational knowledge management, and decision-making support, but, there are significant challenges related to the reliability of output, explainability, data quality, accountability, ethical governance, regulatory adherence, cybersecurity, and user trust. The study builds on these insights and suggests a socio-technical conceptual framework that integrates these aspects into a unified view to inform people's understanding of responsible Human-AI collaboration in project settings.

This work adds to the growing amount of literature by offering an interdisciplinary synthesis, bringing together technological, organizational, governance and human perspectives in a single conceptual framework. The results provide practical advice for project managers, organizational leaders, and policymakers aiming for the responsible implementation of GenAI and give direction for further empirical studies. Although the review was limited to peer-reviewed literature available in Scopus, the proposed framework offers a theoretically based grounding for empirical testing and refinement in a variety of organizational and industrial settings.

Keywords, Generative AI, Project Governance, Human-AI Collaboration, Socio-Technical Systems, Project Documentation

INTRODUCTION

Background of the Study

With the advent of Generative Artificial Intelligence (GenAI) and Large Language Models (LLMs), machines are able to create human-like content, summarize information, aid decision making, automate knowledge intensive tasks – and the list goes on. Contrast this with traditional AI systems that are focused on predictive analytics or rule-based automation, GenAI has the potential to create context-aware reports, technical documentation, software code, meeting summaries, and other forms of organizational knowledge, thus offering greater value in knowledge-driven sectors (Dwivedi et al., 2023; OpenAI, 2023). As a result, organizations in various sectors are adopting GenAI to streamline their operations, boost productivity, and enhance decision-making and collaboration in health care, construction, software engineering, financial, educational, and public

administration sectors (Faraj et al., 2021; Jarrahi et al., 2023).

GenAI has become one of the most rapidly expanding application areas as project success hinges significantly on the ability to effectively create, communicate, and govern information. Project managers are creating and analyzing project charters, technical reports, minutes, risk registers, procurement documents, compliance reports, stakeholder communications, and so on throughout the project lifecycle. Automating documentation, summarising discussions and access to organisational knowledge, and aiding project planning, brings significant potential to cut down on documentation, improving collaboration and operational efficiency (Kerzner, 2022; Raisch & Krakowski, 2021). This has led to GenAI being considered a strategic organizational asset and not just an automation tool.

However, the implementation of GenAI is not just a matter of technology adoption; it involves navigating intricate dynamics among technological capabilities, organizational structures, governance models, and human users. Elements like data quality, interoperability, privacy, cybersecurity, explainability, organizational readiness, workforce skill, ethical governance, and user trust are crucial for successful implementation (Bélisle-Pipon et al., 2023; Floridi & Cows, 2022; Stahl & Wright, 2024). Therefore, the organizational value of GenAI will need to be addressed beyond the field of technology performance and include adapting an organization's governance and work practices to facilitate effective Human-AI collaboration.

As GenAI continues to evolve at a blistering pace, the research on its capabilities is growing in multidisciplinary fields, exploring its technical, organizational, governance and ethical dimensions. Previous research shows significant positive impacts on automated documentation, intelligent information retrieval, project reporting, software development, and decision support (Dwivedi et al., 2023; Faraj et al., 2021; Jarrahi et al., 2023). Meanwhile, researchers have found key barriers to implementation such as hallucinated outputs, algorithmic bias, explainability limits, data privacy concerns, IP risks, and accountability (Bender et al., 2021; Bommasani et al., 2021; Weidinger et al., 2022), which underscores the need for responsible AI governance and ongoing human oversight.

While research on GenAI is growing and the number of literature is also increasing very fast, current research is still scattered among different disciplines and aspects of application. While there are several studies on model development for technical solutions, algorithm optimization for the solution, and domain application, there are comparatively few studies that address socio-technical issues that might affect implementation within the company organization, especially within project documentation and project governance (Stahl & Wright, 2024; Dwivedi et al., 2023). Additionally, much of the prior research on AI reviews has concentrated on specific areas like AI ethics, governance, trust, cybersecurity, or AI adoption and use, leaving out the view of how these factors affect the successful implementation of AI in organizations. The fragmentation reveals the need for an integrative review that can synthesize new knowledge and reveal the relationship between technical, organizational, governance and human factors.

Problem Statement

As GenAI gets adopted across organizations, a robust socio-technical understanding is still lagging behind. While LLMs have brought great advances in content creation and decision support, there are still big hurdles for organizations to use this technology in their project documentation and governance practices. Alongside technical challenges like hallucinated outputs, data quality, explainability, privacy or interoperability, there are organizational issues like accountability, governance, workforce readiness, ethical responsibility or user acceptance, that often intertwine with technical issues and may not be understood from a purely technical point of view (Bender et al., 2021; Floridi et al., 2021; Weidinger et al., 2022).

The multi-dimensionality of those challenges is further highlighted in the preliminary thematic analysis of the Scopus dataset analyzed for the purposes of this study. The literature suggests that there are three pervasive research themes – Data Management, Governance Concerns, and Implementation Issues – that include aspects of data privacy, data quality, standard operating procedures, AI governance, ethical considerations, organizational investment, user acceptance, and system integration. These themes are not individual problems, but they convey the multifaceted socio-technical context into which GenAI is deployed.

While there is an increasing number of publications, there is a lack of synthesis that explains how all these dimensions work together in the implementation of GenAI in project documentation and governance. Evidence is fragmented and scattered by discipline, sector and organisational context and it is hard to see research themes, conceptual connections and gaps on the horizon. An exploratory review is warranted to systematically map the current knowledge space, synthesis emerging socio-technical issues, and identify emerging research directions to enable responsible Human-AI collaboration given the fast changing landscape of GenAI technologies and governance frameworks.

Research Objectives

This study adopts an exploratory review approach to examine the socio-technical implementation of Generative Artificial Intelligence in project documentation and governance. Specifically, the study aims to:

1. To explore the major socio-technical challenges associated with implementing Generative AI in project documentation and governance.
2. To identify and synthesize the dominant research themes emerging from the existing literature on organizational GenAI implementation.
3. To examine how technological, organizational, governance, and human factors are conceptualized within current research on GenAI implementation.
4. To identify knowledge gaps and propose future research directions for advancing responsible Human-AI collaboration in project environments.

Research Questions

To achieve these objectives, the study addresses the following research questions:

RQ1. What are the major socio-technical challenges associated with implementing Generative AI in project documentation and governance?

RQ2. What dominant research themes emerge from the current literature on organizational GenAI implementation?

RQ3. How are technological, organizational, governance, and human factors conceptualized within existing studies?

RQ4. What knowledge gaps and future research opportunities can be identified from the current body of literature?

Significance of the Study

The study is adding to the emerging knowledge about the implementation of Generative AI by offering an integrated exploratory synthesis of the socio-technical issues impacting project documentation and governance. While many reviews in this field focus on a specific dimension of the implementation of AI (e.g., ethical implications, organizational adoption and administration, or technology adoption), the present study attempts to integrate evidence from technological, organizational, governance, and human dimensions to build a more holistic sense of how the Human-AI interface is evolving.

Theoretically, the study offers valuable insights for the growing body of literature on Human-AI collaboration in terms of identification of dominant themes of research, conceptual relationships, and knowledge gaps to guide future empirical studies and theory development. In a practical sense, the results offer a unified view of the most relevant factors that drive successful GenAI adoption to guide project managers, organizational leaders, and AI practitioners to create more effective governance frameworks, organizational policies, and implementation practices. Moreover, for policymakers, the study provides crucial information on the challenges and concerns of

governance, such as transparency, accountability, ethical considerations for AI, and responsible organizational use. Together, these works contribute to the evolution of human-centred and trustworthy AI ecosystems that enable the balance of technological innovation with organizational resilience and effective governance.

LITERATURE REVIEW

Evolution of Generative AI in Project Documentation and Governance

Artificial Intelligence (AI) has shifted from rule-based expert systems and traditional machine learning to Generative Artificial Intelligence (GenAI), which can produce human-like writing, process intricate data, and help with knowledge-driven organizational functions. This revolution has been made possible by two key innovations: transformer architectures and large language models (LLMs) which have greatly enhanced natural language processing (NLP) skills such as document generation, summarization, question answering and contextual reasoning (Bommasani et al., 2021; OpenAI, 2023). With the recent popularity of conversational AI like ChatGPT, organizations have grown interested in GenAI which can be used as a practical tool to improve productivity, support decisions, and manage knowledge across a wide variety of industries (Dwivedi et al., 2023, Crawford, 2021).

GenAI technologies have advanced to the point where they're not only creating content but also aiding numerous other organizational functions. The organizations are increasingly adopting GenAI to automate report generation, create technical documentation, summarize meetings, manage organizational knowledge, and aid strategic decision-making (Faraj et al., 2021; Jarrahi et al., 2023). These capabilities are especially relevant in project-based settings, where the ability to document effectively, exchange information, and share knowledge is crucial to coordinating stakeholders, managing risks, tracking progress, and ensuring compliance throughout the project lifecycle (Kerzner, 2022). GenAI can streamline processes and increase access to organizational knowledge, which can lead to more efficient operations and the ability for project professionals to focus on higher-value tasks.

GenAI has also captured the scholarly focus from technological innovativeness to organizational implementation, as it is rapidly adopted. Although initial studies focused on the enhancements of the architecture of models and language generation, recent studies have increasingly been interested in organizational adoption, governance, user trust and the responsible deployment of AI (Dwivedi et al., 2023; Stahl & Wright, 2024). This transition mirrors the increasing awareness that the successful use of GenAI is not just about the technology's capabilities; it is about the willingness to change, organizational structures, governance frameworks, and the synergy between humans and AI.

In project documentation and governance, GenAI is being used more and more to aid in the creation of reports, meeting minutes, compliance reports, risk management, and communication with stakeholders. While these uses enhance efficiency and information access, they also pose issues of information accuracy, transparency, accountability and human oversight, especially where AI-generated information feeds into critical organizational decision-making processes (Bender et al., 2021; Floridi et al., 2021). Thus, the emergence of GenAI is not merely a technological leap but a shift in the landscape of knowledge creation, management, and governance for organizations. However, today's research suggests that GenAI is not a tool to replace human expertise, but one that needs to be used in combination with organizational processes or governance models and human judgment. This evolution forms the bases for grasping the wider socio-technical issues discussed in the subsequent sections.

Socio-Technical Dimensions of Generative AI Implementation

More and more, the use of Generative Artificial Intelligence (GenAI) is acknowledged as a socio-technical change and not just a technical change. While the development of large language models (LLMs) has significantly enhanced content creation, knowledge retrieval, and decision-making support, organizational structures, governance frameworks, human expertise, and institutional practices remain crucial for successful implementation. Therefore, it is essential for organizations to ensure a match between technological capabilities and work processes, organizational goals, and governance structures to fully leverage the potential benefits of GenAI (Dwivedi et al., 2023).

There is strong support for this view in Socio-Technical Systems (STS) theory, which posits that organizational performance is best optimized by designing and redesigning both social and technical aspects of a system, not just the technical system. In the context of the implementation of GenAI, this means that just because a model performs well doesn't mean it will be implemented successfully. The reality is that organisations need to embed AI capabilities into their current processes, culture, communication and decision-making, with proper governance and organisational readiness. Without an equilibrium between these technical and social aspects, the implementation of these sophisticated AI capabilities can still encounter obstacles (Stahl & Wright, 2024).

User acceptance is another key factor in the adoption of GenAI, in addition to organizational alignment. In the traditional literature, the Technology Acceptance Model (TAM) is used to explain technology adoption and consists of perceived usefulness and ease of use. But with the arrival of GenAI, trust, explainability, transparency, perceived risk and ethical confidence have become more factors. Since the output of AI systems, such as GenAI is probabilistic and not deterministic, users are now looking more than ever for the credibility and reliability of information being generated by the AI systems that they use. As such, trust, AI literacy, and good governance are key drivers of organizational acceptance and continued use (Dwivedi et al., 2023; Glikson & Woolley, 2020).

Also known as Actor-Network Theory (ANT), the interaction between human and technological actors can be understood in this way: Organisations can be conceptualised as evolving networks where both human and non-human actors can influence the results obtained by the organisation (Latour, 2005). In this context, AI systems are not just tools but active participants in the communication, documentation, and decision-making processes. The use of GenAI is thus brought about through the dynamic interplay between AI technologies, project professionals, organizational policies, and regulatory requirements, which accounts for the lack of uniformity in how GenAI is implemented across different organizations (Faraj et al., 2021).

These viewpoints align in focusing on the need to integrate Human-in-the-Loop (HITL) paradigms that ensure that AI-generated outputs are vetted by human experts prior to being used for operational or strategic decisions (Amershi et al., 2021). Human oversight also enhances output quality and accountability and increases transparency and trust within an organization, especially in project settings where output documentation directly impacts governance and compliance.

Together, STS, TAM, ANT, and HITL offer a holistic view of GenAI implementation. Instead of contradicting each other, they show how, in order to be successful, the introduction of technology requires the interplay of technological competence, organization of governance, user acceptance, institutional readiness, and ongoing human involvement. This socio-technical approach provides a conceptual framework for comprehending the transformation of project documentation and governance through Human-AI interaction.

Human-AI Collaboration in Project Environments

With the recent surge in Generative Artificial Intelligence (GenAI), the nature of human interactions with intelligent systems has changed, moving past AI as a tool for task automation to one that is used collaboratively in knowledge creation, information processing, and decision-making (Faraj et al., 2021; Jarrahi et al., 2023). Today, the idea of GenAI replacing human expertise is being replaced by the notion that GenAI can complement and augment professional capabilities, freeing up human time for tasks that involve strategic decision-making, judgment, and stakeholder interactions.

This change is even more pronounced in project settings, where successful project management requires non-stop communication, documentation, and coordination between different stakeholders. Project managers are often involved in various activities that include risk assessment, allocation of resources, monitoring progress, communication with stakeholders, and managing know-how. GenAI can provide assistance with these functions, including documentation, report generation, meeting summarization, project knowledge management, and information retrieval, which can help to streamline administrative tasks and enhance access to organizational information (Kerzner, 2022; Raisch & Krakowski, 2021). So, the real power of GenAI is to augment human decision making, not replace the expertise of professionals.

Despite these advantages, the effectiveness of Human-AI collaboration depends on users' ability to critically

evaluate AI-generated outputs. Trust has become a major factor when considering the adoption of AI, as the users need to determine whether they can rely on the AI's suggestions or if they need to double-check them (Glikson & Woolley, 2020). While traditional information systems usually give a definite answer, GenAI will produce probabilistic answers that can be factually incorrect, hallucinate, or have incorporated biases. These restrictions emphasize the need for human supervision, especially in project scenarios where documentation can impact contractual requirements, regulatory adherence, budget choices, and accountability of stakeholders.

The literature also highlights the importance of AI literacy for effective Human-AI collaboration. AI literacy is not just about the technical skills; it's about grasping the capabilities and limits of GenAI, evaluating the information it produces, and making informed decisions about its use (Long & Magerko, 2020). The cultivation of these skills will empower project professionals to work seamlessly with AI systems while ensuring professional judgment and responsibility. Due to this, organizations invest more and more in employee training and organizational learning for workforce readiness in AI-enabled work environments (Dwivedi et al., 2023).

As a whole, the literature indicates that a successful Human-AI collaboration may rely on a balance between technological capabilities and human expertise. As GenAI is becoming more integral to how projects are documented and decisions are made, project professionals are shifting from information creation to validation, contextualization, and oversight of AI-generated content. This shift highlights the need for organizational practices that facilitate trustworthy collaboration, while also ensuring accountability, transparency, and responsible use of AI, which lays the groundwork for the governance considerations explored in the subsequent section.

Emerging Governance Challenges

With the growing use of Generative Artificial Intelligence (GenAI) in organizational processes and systems, governance has become a key consideration for responsibly and transparently implementing AI systems aligned with legal and ethical requirements. Early studies were mainly focused on improving the performance and application of the model, but more recent studies have taken the approach that successful implementation of AI in the workplace relies on the implementation of governance models that regulate the deployment, monitoring, and oversight of such systems (Dwivedi et al., 2023; Stahl & Wright, 2024). As a result, AI governance is no longer just a technical issue; it's a strategic priority for organizations, focusing on balancing innovation with accountability, risk management, and stakeholder trust.

The ones among the most prominent governance issues are transparency, explainability and accountability. While large language models (LLMs) can produce very coherent and contextually relevant outputs, they may also be hard to interpret when it comes to making decisions. This also poses a problem in project settings where AI-driven reports, compliance documentation and strategic recommendations must be explained and traced (Floridi et al., 2021). Likewise, the active creation of new content by GenAI, as opposed to merely retrieval, makes it more challenging to assign responsibility for inaccurate, biased, or misleading content. Recent studies thus stress the importance of retaining the responsibility for human decision-makers and the need to set up governance frameworks that establish clear roles, validation protocols, and audit trails for decisions made with AI support.

A recent topic of study is also ethical governance. Because of algorithmic bias, misinformation, intellectual property issues, and misuses of AI-generated content, governance policies to enable fairness, transparency, and responsible use of AI throughout the system lifecycle are needed (Bender et al., 2021; Weidinger et al., 2022). They are also embodied in international efforts like the OECD AI Principles and the UNESCO Recommendation on the Ethics of Artificial Intelligence, which both call for human-centred, transparent and accountable AI systems (OECD, 2021; UNESCO, 2021).

Aside from ethics, good governance requires a good data governance. The quality and reliability of AI outputs go hand in hand with data quality, security, and control within the organization. Thus, the organizations need to have data stewardship, privacy protection, cybersecurity, and compliance policies to ensure GenAI systems function as expected and to protect sensitive project data (Dwivedi et al., 2023). Risk-based governance is further reflected at the regulatory level, for example, the European Union Artificial Intelligence Act puts in place

measures for transparency, human oversight, documentation and risk management of higher-risk applications of AI (European Commission, 2024).

In summary, the literature shows that governance plays a critical role in the responsible implementation of GenAI. Governance should be more than a compliance tool; it's the organizational framework that enables transparency, accountability, ethical choices and trustworthy collaboration between humans and AI. These governance frameworks are poised to become even more crucial as GenAI becomes more integrated into project documentation and project governance, ensuring that organizations can adopt the technology sustainably while managing technical, ethical, and operational risks.

Current Applications and Emerging Research Themes

Previously, research focused on the development of AI models, but with the swift adoption of Generative Artificial Intelligence (GenAI), the emphasis is now on appreciating the role of AI in knowledge work and organizational decision making. Recent studies have shown that GEN AI is gradually being used in project documentation, knowledge management, workflow automation, stakeholder communication and support and governance (Dwivedi et al., 2023; Faraj et al., 2021), thus, enhancing the productivity of organizations and managing information. These are not stand-alone applications, but examples of a larger paradigm shift in the way knowledge is built, managed and used in organizations.

One of the most established areas of application is AI-assisted project documentation, where the use of GenAI helps for the generation of reports, meeting minutes, risk registers, compliance documents and other project-oriented documents. These skills help to minimize administration, enhance consistency and ensure effective communication between stakeholders (Kerzner, 2022; Raisch & Krakowski (2021). Yet, these documents always need to be verified by humans to make sure that they are accurate, relevant to the context, and follow organizational guidelines (Bender et al., 2021).

The other major research theme is Knowledge Management and Decision Support. GenAI enhances knowledge retrieval, information sharing, and managerial decision-making by consolidating data from various sources within the organization (Jarrahi et al., 2023). Meanwhile, research warns that AI-driven suggestions should be used alongside managerial expertise, as they can include errors or fail to account for certain context (Faraj et al., 2021; Glikson & Woolley, 2020).

Other studies have also shown how GenAI can improve workflow and organizational efficiency. By automating repetitive admin tasks, project teams can focus more on strategic planning, stakeholder management, and problem-solving. However, the success of automation relies not just on technological capabilities but on effective system integration, preparedness of the workforce, and organizational change management (Dwivedi et al., 2023).

In addition to these operational use-cases, governance and responsible use of AI have become key areas of research. Organisations are increasingly building mechanisms for governance to enable the deployment of trustworthy AI, including mechanisms for transparency, accountability, ethical compliance, data management and human oversight (Floridi et al., 2021; OECD, 2021). Within a project setting, such governance issues can significantly impact regulatory compliance and decision-making processes, adding to the value of AI-driven documentation.

In sum, the literature suggests a need to combine technological capability, organizational readiness, and effective governance to ensure the successful implementation of GenAI. As outlined in Table 1, the focus of contemporary research has gradually gone from assessing technical performance to determining the organizational conditions that facilitate sustainable Human-AI collaborations and responsible AI adoption. These emerging themes also indicate a few issues which are not resolved and constitute the basis for the research gaps.

Table 1: Socio-Technical Friction Matrix

Emerging Research Theme	Primary Organizational Focus	Reported Benefits	Key Implementation Challenges	Representative Literature
AI-assisted Project Documentation	Generate automated reports, meeting minutes, technical documentation, compliance records and stakeholder communications.	Improves documentation efficiency, consistency and communication, also minimizing tasks for administration.	Inaccurate factual, contextual errors, hallucinations, and human validation needs.	Bender et al. (2021); Dwivedi et al. (2023); Kerzner (2022); Raisch & Krakowski (2021).
Knowledge Management and Decision Support	Knowledge retrieval, synthesis and decision support for project planning and problem solving.	Improves knowledge accessibility, organizational learning and evidence based decision making.	Generated knowledge realibility, contextual interpretation, and data quality.	Faraj et al. (2021); Glikson & Woolley (2020); Jarrahi et al. (2023).
Workflow Automation and Operational Efficiency	Automating routine administrative tasks project coordination and communication.	Enhances productivity, resource utilization optimalization, and enables strategic focus.	Integrated system, organizational readiness, employee training, and change management.	Dwivedi et al. (2023); Faraj et al. (2021); Raisch & Krakowski (2021).
Human-AI Collaboration	AI powered planning, monitoring, documentation and decision support.	Strengthens human expertise, extend analytical capability, and enhance knoeledge sharing.	AI literacy, user trust, cognitive reliance, and maintaining human oversight.	Amershi et al. (2021); Glikson & Woolley (2020); Jarrahi et al. (2023).
AI Governance and Responsible Implementation	Governance frameworks for transparency, accountability, ethics, compliance and oversight.	Intensify organizational trust, AI adoption responsibility, and regulatory compliance.	Accountibility, bias, explainability, privacy, cybersecurity, and regulatory uncertainty.	Floridi et al. (2021); OECD (2021); UNESCO (2021); European Commission (2024).
Socio-Technical Integration	Ensuring AI capabilities align with organizational processes governance and human expertise.	Support adoption sustainability, organizational resilience, and long term AI integration.	Cultural resistance, policy alignment, organizational readiness, and interdisciplinary coordination.	Dwivedi et al. (2023); Faraj et al. (2021); Stahl & Wright (2024).

Research Gaps

While there has been a significant growth in research on Generative Artificial Intelligence (GenAI), the literature is fragmented and it is still very limited both from a technological perspective as well as from an organizational,

governance and human perspective. While there are studies on individual implementation challenges, few have considered these dimensions as a whole in understanding how GenAI can be applied effectively in the scope of project documentation and project governance. This fragmentation reveals a number of critical areas that remain a focus in future research.

The first gap is related to the lack of effective integration of socio-technical views. Much of the existing literature addresses one or more of these areas, tech acceptance, AI ethics, governance, trust, explainability, or maybe readiness of the organization. Despite the value in each of these perspectives, there is a lack of synthesis on the interaction between technological capabilities, organizational processes, governance structures, and human expertise, and their influence on implementation outcomes (Dwivedi et al., 2023; Faraj et al., 2021).

Another gap is the lack of adequate representation of the project documentation and governance context as a separate organizational context. Many of the existing publications discuss either generic organisational areas or are dedicated to specific industries (e.g. health care, education or software development). Project-oriented work environments are a topic in which the quality of documentation, the communication of project participants and the compliance with regulations and good governance are critically important aspects of the organization's performance. As a result, even research results from other domains are not always applicable in the context of the project.

A lack of interdisciplinary synthesis is also apparent from the literature. The study of GenAI is carried out across information systems, computer science, management, organizational studies, ethics, public policy and beyond, leading to different theoretical perspectives and evaluation metrics. This diversity has helped to speed up the development of knowledge, but it has created a degree of fragmentation that has rendered it hard to build an overarching comprehension of Human-AI collaboration and organisation implementation.

Another significant lack has to do with the incorporation of governance issues. While transparency, accountability, explainability, privacy and ethics for AI are now known to be critical components of responsible use of AI, these are often studied separately rather than as integral organizational capabilities. With ongoing changes in regulation, there is a growing need for more extensive guidance for organizations on how governance mechanisms can help foster innovation and responsible implementation of AI (European Commission, 2024; Floridi et al., 2021).

The literature as a whole indicates that there is a need to move beyond the emergence of additional stand-alone research and, instead, into the synthesis of knowledge into a coherent socio-technical context. Thus, this exploratory review paper provides a synthesis of current evidence to understand how technological capability, organizational readiness, governance, and Human-AI collaboration are interrelated and identifies future research areas related to the responsible implementation of GenAI in project documentation and governance.

METHODOLOGY

Research Design

The study takes an exploratory literature review as a secondary research approach to analyze the socio-technical issues of integrating Generative Artificial Intelligence (GenAI) in project documentation and project governance. An exploratory review is more suitable for fast-changing and interdisciplinary fields of research where the main goal is to conceptualize, explore new ideas, collate multiple viewpoints, identify research gaps, and gain conceptual understanding, rather than to assess intervention effectiveness or statistically synthesize results (Grant & Booth, 2009; Snyder, 2019).

Adopting GenAI cuts across several disciplines such as artificial intelligence, information systems, project management, organizational studies and governance, fitting an exploratory review for evidence integration across multiple knowledge areas. The exploratory reviews are more flexible than systematic reviews in that they can consider the emerging phenomena, can include heterogeneous evidence, and can include new themes in a research field in a complex socio-technical environment (Grant & Booth, 2009; Snyder, 2019).

For the purpose of this study, an iterative review process was adopted, which involved structured literature identification, transparent study selection, thematic coding and the inductive thematic synthesis to identify a set of recurring socio-technical patterns in the literature. The review was not designed to measure effect sizes or conduct direct comparisons of intervention outcomes, but instead sought to grasp the impact of the combination of technological capabilities, human–AI collaboration, organizational governance, and project management practices on the responsible use of GenAI in an organizational context. This method aligns with recent guidelines on synthesizing evidence in new areas of AI research, such as conceptual integration, which is more suitable than statistical synthesis due to the variety of research designs, organizational contexts, and technological applications (Dwivedi et al., 2023; Stahl & Wright, 2024).

This study embraces an exploratory review approach, offering a thorough conceptual synthesis of the current knowledge and highlighting gaps in research and future directions for responsible Human–AI collaboration in project documentation and governance.

Data Sources and Database Selection

For this exploratory review, the main source of evidence was the Scopus database through literature search. Scopus was chosen as one of the most comprehensive multidisciplinary bibliographic databases that covers a broad range of peer-reviewed articles in computer science, information systems, management, engineering, social sciences and related fields. It is multidisciplinary, which is why it is well suited for exploratory reviews that tackle new and cross-disciplinary research topics like the use of Generative Artificial Intelligence (GenAI) (Elsevier, 2025; Martín-Martín et al., 2021).

In contrast to systematic reviews, which focus on finding all the available evidence by performing extensive multi-database searches, exploratory literature reviews emphasize the concepts, development of themes, and synthesis of knowledge. Scopus provided the researcher with a representative and sufficiently large, and high-quality, corpus of peer-reviewed publications to establish dominant research themes, conceptual relationships and newly identified socio-technical issues with the use of GenAI in project documentation and governance (Grant & Booth, 2009; Snyder, 2019).

The first search of the database resulted in 243 publications being identified as the start of the evidence base for the review. In addition to bibliographic retrieval, Scopus also supported citation tracking and related-document exploration that helped to identify influential papers and new research debates around Human–AI collaboration, project governance, organizational implementation, and AI governance frameworks. This process of iteration, searching, enhanced the conceptuality of the review as it enabled the review to encompass seminal and highly relevant publications using a range of organizational contexts.

However, one of the drawbacks of this study is the exclusive use of Scopus. While Scopus offers wide multidisciplinary coverage and includes many of the leading journals, studies that are relevant that appear in other scholarly databases, including Web of Science, IEEE Xplore, ACM Digital Library, ScienceDirect, and Google Scholar, may not be captured. Thus, the results of this review should be seen as a representation of the evidence found in the papers indexed by Scopus and not the scope of all published papers on GenAI implementation. Future explorative and systematic reviews may also wish to use multiple databases to improve evidence coverage, decrease database selection bias, and improve evidence synthesis comprehensiveness (Gusenbauer & Haddaway, 2020; Page et al., 2021).

Search Strategy and Study Selection

Search Strategy

A formal search strategy was created for locating literature about the relationship between Generative Artificial Intelligence (GenAI), Human–AI collaboration, project documentation, and organizational governance. The search strategy was developed to ensure maximum inclusion of conceptually relevant studies with a focus on the research aim of this exploratory review. Synonymous keywords and related terms were added and the Boolean operators 'AND' and 'OR' were used to obtain the variations in keyword terms (Page et al., 2021; Snyder, 2019).

The search string was designed as:

("human-ai" OR "human artificial intelligence" OR "human-machine" OR "human-computer") AND ("interface" OR "interaction" OR "engagement" OR "communication") AND ("project" OR "initiative" OR "program" OR "task") AND ("documentation" OR "record" OR "report" OR "files") AND ("governance" OR "management" OR "oversight" OR "regulation")

The search terms were gradually improved by conducting preliminary searches, which guaranteed that the resulting publications suitably represented the growing multidisciplinary literature on the implementation of GenAI in organizational environments.

Study Selection

Exclusion and inclusion criteria were defined prior to the screening process, and criteria were kept consistent and relevant throughout the review process.

Inclusion criteria

- All publications from 2019 to 2026, representing the swift evolution and organizational uptake of Generative AI technologies.
- Peer-reviewed journal articles and conference proceedings and authoritative technical reports.
- Publications written in English.
- Studies on Human–AI collaboration, Generative AI implementation, project documentation, organizational governance, socio-technical systems or other organizational applications.

Exclusion criteria

- Research articles without discussion of implications for organisations, governing bodies or people.
- Publications which do not relate to project documentation, organizational governance or Human-AI collaboration.
- Editorials, opinion articles, news reports, book reviews, and other non-peer-reviewed publications.

After the initial retrieval, every record was screened using a multiple stage process (title screening, abstract screening and full-text screening based on pre-defined eligibility criteria). The study selection within this study was not systematic review but instead an exploratory review methodology, meaning that the selection of studies was based more on conceptual relevance, theoretical contribution, and applicability to the research objectives rather than exhaustive retrieval or quantitative synthesis (Grant & Booth, 2009; Snyder, 2019).

An iterative screening process led to a purposive set of around 20–30 highly relevant publications across a variety of organizational contexts, such as healthcare, construction, education, public administration and information technology. These studies gave conceptual variety for identifying the socio-technical problems encountered in implementation, socio-technical governance issues, and practices of Human–AI collaboration that arose in the conceptual framework presented in this review.

Quality Assessment of Included Studies

A structured quality assessment was applied to all studies included in the final synthesis to increase methodological rigor, and thus the credibility of this exploratory literature review. The aim of quality assessment in this exploratory review was not to exclude studies or to calculate the strength of the evidence, as in systematic reviews, but to ensure that the synthesized evidence came from methodologically sound and conceptually relevant sources and retained the breadth of perspective required to gain insight into the rapidly changing domain

of the implementation of Generative Artificial Intelligence (GenAI) (Grant & Booth, 2009; Snyder, 2019).

The quality appraisal was implemented after the full-text screening stage based on five complementary evaluation criteria adapted from other guidelines for evidence synthesis and qualitative appraisal (Page et al., 2021; Hong et al., 2018). These criteria were not used to score or exclude studies, but to inform the interpretation and synthesis of the evidence, by assessing the scholarly rigor, conceptual relevance, and contribution to understanding the socio-technical implementation of GenAI of each study.

The following criteria were taken into account for the Assessment:

Table 2. Quality Assessment Criteria for Included Studies

Criterion	Assessment Focus
Relevance	Alignment with the research objectives related to GenAI implementation, Human–AI collaboration, project documentation, or organization governance.
Publication Quality	Publication in peer-reviewed journals, reputable conference proceedings, or authoritative technical reports.
Methodological Transparency	Clear description of research design, data sources, analytical procedures, and reported findings.
Theoretical Contribution	Contribution to socio-technical understanding, AI governance, organizational implementation, or Human–AI collaboration.
Practical Contribution	Relevance of findings to organizational practice, governance, project management or responsible use of AI.

Studies, which were conceptually relevant and methodologically transparent, were retained for thematic synthesis. These publications were screened out because they included only technical aspects of model development, rather than organizational, governance or human considerations. Similarly, non-peer-reviewed publications, editorials and opinion papers were excluded to ensure the evidence base was of scholarly quality.

The quality assessment was used in this study to enhance the credibility, consistency and trustworthiness of the thematic synthesis rather than to assess the effectiveness of the interventions. The appraisal process also mitigated the danger of overemphasizing individual results by ensuring that the conceptual framework was built on evidence that was supported in many high quality publications from various organizational settings.

While no specific scoring method was used, the structured evaluation helped ensure the study selection was transparent and increased confidence in the resulting conceptual framework, representing the state of knowledge on the socio-technical implementation of Generative Artificial Intelligence in project documentation and governance.

Data Analysis and Synthesis

After selection and quality assessment, data from each article that was included was extracted systematically to aid in thematic synthesis. The data extraction centered on publication attributes (such as year published, research context, research objective, etc.), methodology, organizational context, reported challenges of implementation, governance, Human-AI collaboration, and the main findings that emerged from the research regarding the implementation of Generative Artificial Intelligence (GenAI). These data elements allowed for comparisons across studies, while maintaining the contextual diversity of this rapidly changing research field (Snyder, 2019).

Thematic synthesis by an inductive method was used to generate themes that appeared in the literature included without a pre-designed analytical framework. The synthesis was an iterative process that involved multiple

readings of the included studies, open coding the findings, constant comparison of concepts across studies, revision of preliminary coding categories, and development of higher order themes that represented recurring socio-technical patterns that would be associated with the implementation of GenAI. This also allowed for the creation of interpretative themes based on the evidence, but maintaining the richness of the primary studies' contexts (Flemming & Noyes, 2021).

The iterative coding process meant that the themes were not just themes from individual publications but themes of common interest across multiple studies.

The thematic synthesis was then analyzed with a socio-technical systems lens as successful implementation of GenAI is likely more a function of the interplay between technology, human factors, and organizational governance, than just technological performance. With this in mind, the themes identified were brought together into three conceptual dimensions, all of which are connected to each other:

- **Technological Dimension:** Discussing aspects of AI capability, output reliability, risk of hallucinating, explainability, data quality, transparency and new technological solutions like Retrieval-Augmented Generation (RAG).
- **Human Dimension:** Discussing user trust, awareness of the use of AI, cognitive load, automation bias, human oversight, shifting work roles, and the changing role of Human–AI collaboration in project environments.
- **Organizational and Governance Dimension:** Exploring organizational readiness, governance structures, accountability, ethics, regulation, data governance, policy formulation and responsible AI use.

The richness of the synthesized outcomes was increased by comparing the findings across various organizational environments that were represented in the studies included, such as healthcare, construction, public administration, education, and information technology. The cross-contextual comparison helped pinpoint common challenges of implementation and context-specific governance issues, which helped to bolster the conceptual framework created in this review.

The analytical approach was not to achieve statistical generalization, but to build an integrated conceptual understanding of the socio-technical challenges faced in the implementation of GenAI in project documentation and governance. Consequently, the resultant synthesis is the basis for the conceptual framework being proposed in this study, and key knowledge gaps to inform future empirical studies.

Trustworthiness of the Review

To improve the trustworthiness, transparency and methodological rigor of this exploratory literature review, a number of measures were taken. Since Generative Artificial Intelligence (GenAI) is an interdisciplinary and rapidly evolving field, efforts were made to make the evidence synthesis systematic, transparent and conceptually coherent while being consistent with the aims of an exploratory review (Snyder, 2019).

A detailed and explicit search strategy with inclusion/exclusion criteria was established to ensure transparency and consistency in the identification and selection of studies. Eligible publications were included in the final synthesis using the predefined eligibility criteria, which helped ensure that only publications that were directly relevant to Human-AI collaboration, project documentation, organizational governance, and the socio-technical implementation of GenAI were included (Grant & Booth, 2009).

Second, the methodological quality and conceptual relevance of the included studies were structured quality appraisal. The assessment did not use numerical quality scores, but rather on the publication quality, the transparency of the methods, the contribution to the theory, the relevance to practice and the consistency with the research goals. This method helped to strengthen the credibility of the synthesized evidence, but did not take away the conceptual difference that is required in exploratory literature reviews (Hong et al., 2018).

Third, the thematic synthesis was an iterative analytical process that included repeated reading of the included

studies, open coding, continuous comparison of ideas and concepts across publications, and the development and refinement of the higher order themes. Themes were included only if they were found across several publications and/or organizational contexts, to diminish the effect of single studies and enhance the conceptual synthesis in the review. The inductive approach allowed for identification of socio-technical patterns and remained transparent and rigorous during the synthesis process (Flemming & Noyes, 2021).

Moreover, the evidence was analysed from a socio-technical angle, with findings from various organizational contexts (healthcare, construction, education, information technology and public administration) compared. The cross-contextual comparison helped identify challenges to implementation, common and context-specific governance issues, and overall increase the transferability and conceptual strength of the proposed framework.

The exploratory literature review is not a statistical generalization but it is a credible, reliable and confirmable result of a search strategy that is clearly explained, criteria for selecting studies that are clearly stated, quality appraisal of the studies is clearly guided, and the iterative process of thematizing the results increases the credibility, reliability and confirmability of the review findings. Therefore, the conceptual framework created in this study is an evidence-based integration of the existing literature and will serve as a trustworthy groundwork for future empirical studies of the socio-technical implementation of Generative Artificial Intelligence for project documentation and governance.

DISCUSSION

Interpretation of the socio-technical nature of Generative AI implementation

Based on the exploratory review, the use of Generative Artificial Intelligence (GenAI) for project documentation and governance is a socio-technical transformation, not only a technological one. While recent advancements in large language models (LLMs) have contributed to improved documentation, knowledge management, and decision support, the effective integration of these technologies requires a harmonious alignment of AI capabilities with human expertise, organizational processes, and governance frameworks. It aligns with recent studies of Socio-Technical Systems (STS) theory, which focus on the interplay between technology, organizations and human factors creating effective AI applications, rather than the application of technology itself (Yu et al. 2022).

One of the most important insights, the researchers say, is that the focus in organisations has shifted from assessing AI capabilities to learning how to implement it successfully. The literature indicates that technical performance is not enough for creating organizational value. Rather, the success of implementing AI will rely on organizational Readiness, governance Maturity, skill of the workforce, and the capability of integrating AI into current workflows (Dwivedi et al., 2023). This evolution mirrors the need for continued technological advances to be matched by organizational changes for sustainable progress in project documentation and governance with GenAI.

The review also illustrates how an AI-human collaboration approach should be considered as an augmentation process, not automation. Project managers can expect more of GenAI to assist with the mundane cognitive tasks of documentation, information retrieval and communication, while leaving them more time for higher-value work like contextual interpretation, stakeholder engagement and strategic decision-making (Glikson & Woolley, 2020; Raisch & Krakowski, 2021). As a result, the function of project professionals is shifting from creating the information to validating, interpreting and controlling the outputs generated by the use of AI.

Important to note is that the challenges faced in this review are very interdependent. Technical issues can also lead to hallucinations or incorrect outputs, reducing the trust of users and the necessity for governance and human oversight. Similarly, poor governance can hinder the adoption of organizations even with the implementation of high tech AI tools. The results indicate that implementation challenges are not usually due to a lack of a single technical skill but rather due to the lack of alignment between AI skills, organizational practices, governance structures and the human involvement, hence the socio-technical aspect of GenAI implementation (Yu et al., 2022; Herrmann & Pfeiffer, 2023).

The overall picture from this review is that the implementation of GenAI is a process of development of the integrated Human-AI interface, in which technological capabilities and organizational governance and human expertise co-develop. In this view, governance is not just about complying with regulations; it's about enabling responsible use of AI. This socio-technical view goes beyond existing knowledge by revealing that the value of GenAI is as much about humans' capacity for integrating technology, governance, and human decision-making into a coherent project management process as it is about the progress of AI models.

Technological Challenges beyond model performance

Based on the results of this review, it is concluded that the successful integration of Generative Artificial Intelligence (GenAI) will not be achieved solely by the improvement of the models. Although large language models (LLMs) have significantly enhanced the production of project documentation, knowledge retrieval and decision-making support, the trustworthiness, transparency and reliability of the outputs they produce will increasingly influence the value they bring to organizations. Therefore, the maturity of the AI system should be judged beyond its language generation capabilities and also through its support of the accuracy and accountability of decisions in project environments (Dwivedi et al., 2023).

One of the main issues found in the literature is the trustworthiness of information produced by AI. GenAI models can still hallucinate, provide false references and offer responses that are irrelevant to the context, as their outputs are probabilistic in nature. These limitations can be a problem in project environments where documentation may be bound by contractual requirements, compliance activities, and strategic decisions, which can lead to decreased stakeholder confidence and affect organizational performance. The results thus suggest that the ease of speech should not be used as a substitute for the accuracy of the facts, calling for systematic fact-checking of AI-generated speech.

Explainability is also identified as an important aspect affecting organizational adoption in the review. Many GenAI models are not transparent, making them hard to understand by the users, which poses problems for accountability and auditability. The results do not just emphasize the importance of explainability as a technical capability, but also as a key element in the development of organizational trust, where decisions need to be explained and documented, especially in governance-driven contexts (Dwivedi et al., 2023; Floridi & Chiriatti, 2020).

Another key takeaway relates to the strong correlation between AI performance and organizational data quality. The success of GenAI is highly dependent on the organizational knowledge it draws upon, which must be of high quality, complete and accessible. Improvements in AI models are essential, but data governance, standardizing documentation, and knowledge management are also significant investments. All this is a step toward enhancing the accuracy and contextual relevance of AI-generated content by integrating trusted knowledge sources within the organization into the language model. Methods like Retrieval-Augmented Generation (RAG) are becoming more common for this reason.

Last, the results reveal that for many governance-intensive activities in projects, full automation of document generation is still not suitable. Rather, AI has become a technology that increasingly supports decision-making by human professionals, whose role is to validate and contextualize the decisions made by the AI technology. This supports the general claim that technology is not sufficient to realize successful implementation. Instead, reliable AI ecosystems need to be built with trustworthy models, high-quality organisational data, explainable systems, and regulations and human oversight. In this sense, the future of GenAI will rely on the capacity of organizations to integrate GenAI tools into strong socio-technical and governance structures rather than ever more powerful algorithms.

Human-AI collaboration and how the role of project professionals is evolving

The key observation made in the course of this exploratory review is that Generative Artificial Intelligence (GenAI) is not a substitute for skills and experience but is fundamentally changing how the work is done, the role of project professionals. The literature examined is found to support the idea that GenAI is a tool for human augmentation; it allows project managers to free up time for tasks requiring more contextual judgment, strategic

thinking, and stakeholder interaction from mundane documentation, information retrieval, and administrative activities (Raisch & Krakowski, 2021). The shift mirrors a larger paradigm shift regarding automation of tasks to collaborative intelligence, where the organization's value is realized by the complementary attributes of both humans and AI.

The results indicate that project managers' responsibilities are shifting from project documentation to overseeing and checking AI-generated content. The use of GenAI is making these things more efficient, like generating reports, summarizing meetings, and retrieving knowledge—but the interpretation of results, ensuring they are relevant to the meeting, and compliance still lies with the human professional in charge. This further supports the idea of AI as a tool for decision making support rather than as a decision making system, especially in project settings where documentation directly impacts upon governance, contractual commitments, and stakeholder trust (Glikson & Woolley, 2020).

AI literacy is also emerging as a critical organizational competency, identified in the review. With the integration of GenAI into project management workflow, project management professionals need to possess more than just project management skills. They need to learn about the strengths and weaknesses of generative models, critically analyze AI-generated content, and use the correct validation process before incorporating AI-generated content into organizational decisions (Long & Magerko, 2020). Workforce development should therefore be seen as a strategic investment to empower organizations to reap the rewards of GenAI while being accountable and on professional standards.

In summary, the results suggest that the future of project management is likely to involve the collaboration of humans and Artificial Intelligence (AI) rather than complete automation. The specific role of project professionals will involve adding contextually unique interpretation, ethical reasoning, communication, and strategic leadership. The shift from a technological standpoint shows that the co-development of technology and human skills is crucial for successful GenAI implementation from a socio-technical perspective. AI-powered organizations with ongoing staff training and development as well as ethical management practices are thus better equipped to secure sustainable gains in project documentation and organizational performance.

Organizational Governance as a foundation for responsible use of GenAI

One of the most significant insights from this exploratory review is that governance within the organization has emerged as the key factor to enable the responsible use of Generative Artificial Intelligence (GenAI). Governance has developed more slowly than AI capabilities, leaving a disparity between tech and governance. The findings indicate that while advanced AI systems play a crucial role in successful GenAI adoption, it is equally vital to have in place governance frameworks that hold those responsible for the AI systems accountable, transparent, make ethical decisions, and implement regulatory compliance (Dwivedi et al., 2023). Governance should, therefore, be considered as a strategic capability that runs throughout the entire lifecycle of implementing AI rather than a response after deployment.

The accountability of decisions made with AI is one of the most important governance issues. While GenAI can help automate report creation, meeting documentation, and decision support, the accuracy and integrity of project documentation are still the responsibility of a human professional. The results help to confirm that AI must complement, not supersede, organizational decision-making, and that there are definite governance requirements for the proper validation and approval of AI-generated results (Floridi & Cowls, 2019). In project settings where documentation matters for contractual obligations, regulatory compliance, and stakeholder trust in the project, it becomes crucial.

Transparency and organizational readiness are closely linked governance needs that are also highlighted in the review. Trust is not achieved using explainable AI alone, but through the creation of policies that regulate the review, documentation and use of AI-generated information for decision-making. Thus, governance maturity goes beyond compliance to the establishment of standard operating procedures, employee education, risk management, and senior management's dedication to responsible AI use. There is increasing evidence that organisations with robust governance structures are more likely to implement GenAI in project processes with consistency, accountability and trust (Dwivedi et al., 2023).

The other important meaning is the growing influence of moral governance. The results show that algorithmic bias, privacy, fairness, and IP issues cannot be solved only by technical improvements; organizational policies that involve human values and professional standards should be included in the process of the AI-enabled decision-making. This human-centric perspective is further underscored by measures taken at the international level, such as the OECD AI Principles and the UNESCO Recommendation on the Ethics of Artificial Intelligence, which highlight transparency, accountability, and responsible oversight as key principles in AI governance (OECD, 2019; UNESCO, 2021).

In general this review confirms that governance is a dynamic capacity of an organization that is co-evolving with technological innovation. Proper governance is not a hurdle to the use of AI, but an enabling framework that allows organizations to safely and responsibly incorporate GenAI into project management. In this view, governance is the key that ties technological capacity to human expertise, making innovation accountable, trusted, and valued for sustainable organizational processes.

Implications for Research and Practice

The results of this preliminary review have significant implications for future study and practice. On the research side, the review shows that the research on the implementation of Generative Artificial Intelligence (GenAI) is still scattered in various research fields such as artificial intelligence, information systems, project management, organizational behavior, and governance. While significant strides have been made in technological understanding of the capabilities of large language models, relatively little research has explored the interaction between technological, organizational, governance, and human factors in driving successful implementation in project settings. The fragmented nature of these research streams underscores the importance of greater interdisciplinary research that will combine technical innovation with organizational and socio-technical views (Dwivedi et al., 2023; Faraj et al., 2021).

A key finding of this review is the conceptual model that connects three dimensions of successful implementation of GenAI: technological reliability, Human–AI collaboration, and organizational governance. This is a theoretically informed and conceptual integration of existing knowledge, but has not yet been tested in practice. Therefore, empirical studies including organizational case studies, survey designs, qualitative interviews, longitudinal studies, and mixed methods designs are needed to explore its applicability in the future. This validation would allow researchers to test the relationships between the proposed dimensions, determine implementation factors specific to the context, and modify the framework for use in organizations more broadly (Venkatesh et al., 2013).

Future research should also explore the variations in socio-technical implementation challenges based on industry and organizational implementation settings. There are significant differences across sectors in the level of governance, documentation, regulatory requirements, and maturity when it comes to GenAI adoption, so it will be different in sectors like healthcare, construction, public administration, financial services, education, and information technology. Comparative cross-sector research would thus enable a deeper understanding of the impact of organizational context on the outcomes of Human–AI collaboration, governance mechanisms, and implementation outcomes. Such research would help to develop a more context-sensitive approach to implementation and improve the broader applicability of existing knowledge.

On the practical side, the review recommends that GenAI use should be seen as a process of organizational transformation and not just a technical one. Achieving success in adoption depends on the effective coordination of investments in technological infrastructure, governance systems, data quality management, human resources skill development, organizational change management and human oversight. The combination of these complementary capabilities is more likely to lead to sustainable enhancement of project documentation, knowledge management, decision support and organizational governance (Dwivedi et al., 2023).

The results also underscore the increasing need for project professionals to be aware of AI literacy. Project managers and knowledge workers need to acquire skills beyond the scope of classic project management, as GenAI is expected to play a more crucial role in documentation, reporting, and decision-making in the near future. This encompasses comprehension of generative models' capabilities and limitations, critical assessment

of AI outputs, awareness of automation bias, safeguarding of sensitive organizational information, and using suitable validation processes to ensure that AI-generated information is not used in organizational decisions (Long & Magerko, 2020; Glikson & Woolley, 2020).

The organization's governance structures promoting responsible AI use are also crucial. Transparency, accountability, ethical use of AI, documentation requirements, human oversight, and compliance with regulations should be clearly defined policies within the organization. Governance should be understood as a capability of the organisation, supporting trustworthy Human–AI collaboration, and protecting the organization's knowledge, stakeholder trust and decision quality (Floridi et al., 2021; Stahl & Wright, 2024).

Overall, this review shows that the future organisational value of GenAI will depend not only on the future technical developments but also on organisations' capacity to embed responsible governance, skilled workforce, organisational readiness, and effective Human–AI collaboration in their project management practices. A socio-technical approach can enhance the potential benefits of GenAI while addressing real-world challenges and risks of AI implementation and ensuring sustainable, trustworthy innovation.

Future Validation and Contextual Applicability of the Proposed Framework

This exploratory review is one of the main contributions to the conceptualization of responsible Generative Artificial Intelligence (GenAI) implementation, as it identifies an integrated socio-technical conceptual framework that allows to conceptualize the implementation of responsible GenAI by the interaction between three interdependent dimensions: technological reliability, Human–AI collaboration, and organizational governance. Although the framework is based on evidence compiled from the existing literature, it is still a conceptual model of the socio-technical processes that are impacting the adoption of GenAI. Therefore, further empirical testing is needed to explore its applicability, the theoretical relations and its effectiveness in different organisational contexts.

The proposed framework should thus be tested at least with other research designs in the future. Qualitative case studies might offer valuable contextual knowledge of how organizations are implementing GenAI in project documentation and governance and illuminate the dynamics between technological capabilities, governance framework, and human knowledge during implementation (Yin, 2018). The three dimensions of the framework can be operationalized through the use of quantitative study instruments, and the relationships between these dimensions can be examined using Structural Equation Modeling (SEM) or Partial Least Squares Structural Equation Modeling (PLS-SEM) to obtain empirical evidence on the factors which are most influential in successful implementation of GenAI (Hair et al., 2022; Venkatesh et al., 2013). Beyond this, further studies could use mixed methods designs, incorporating interviews, surveys, and organizational document analysis, to capture the depth of context and more empirical evidence of GenAI implementation practices (Creswell & Plano Clark, 2023). Additionally, longitudinal studies should be conducted to better understand how organizational readiness, AI governance competencies and collaboration between humans and AI technology develops as organizations gain experience with GenAI, offering insights into the dynamic processes that underlie the sustainable implementation of AI technology (Kim et al., 2025).

In addition to being empirically validated, the framework needs to be analyzed in various organizational and industrial settings. While the three socio-technical dimensions identified in this review are likely to also apply to other sectors, their relative importance will depend on the maturity of the organization, the complexity of the project, regulatory stipulations and the capacity of the governance. For instance, in healthcare and financial services, which are highly regulated sectors, there could be a higher focus on governance, explainability, accountability, and regulatory compliance; where evidence generated by AI systems is directly linked to patient safety, financial integrity, and legal responsibility (Floridi et al., 2021; Stahl & Wright, 2024). However, in project-intensive industries like construction, engineering, and information technology, user-driven collaboration, process efficiency, knowledge exchange, and project management coordination could still be important factors alongside the need for strong oversight and control of AI-generated content for reliability and contextual relevance (Kerzner, 2022; Raisch & Krakowski, 2021).

Likewise, the public sector organisations and educational institutions are governed with a focus on transparency,

ethical responsibility, accountability and public trust. Successful AI implementation in these environments could rely both on the technology's functionality and on the creation of comprehensive governance policies, organizational AI literacy and stakeholder engagement to guarantee responsible, and socially acceptable, AI use (OECD, 2021; UNESCO, 2021). In addition, challenges for implementation are likely to differ from organization to organization, depending on the extent to which they've been digitized. Some organizations have the capacity to leverage GenAI into their current processes more easily than others, depending on their digital maturity, governance processes, and project management experience.

Based upon these contextual differences, the proposed framework should be understood as a flexible socio-technical model, rather than as a generic implementation model. Although the three dimensions offer a common conceptual basis for responsible GenAI implementation, each one is enriched by the others' interactions in the particular organizational context within which implementation takes place. To further develop the framework, to explore industry, environment, and project specific implementation strategies, and to further enhance the theoretical strength and practical usability of the framework, future comparative studies across industries, environment, and project settings will be crucial. By going through such empirical refinement, the framework can turn into a more comprehensive model that can enable trustworthy, responsible, and sustainable Human-AI collaboration in project documentation and governance.

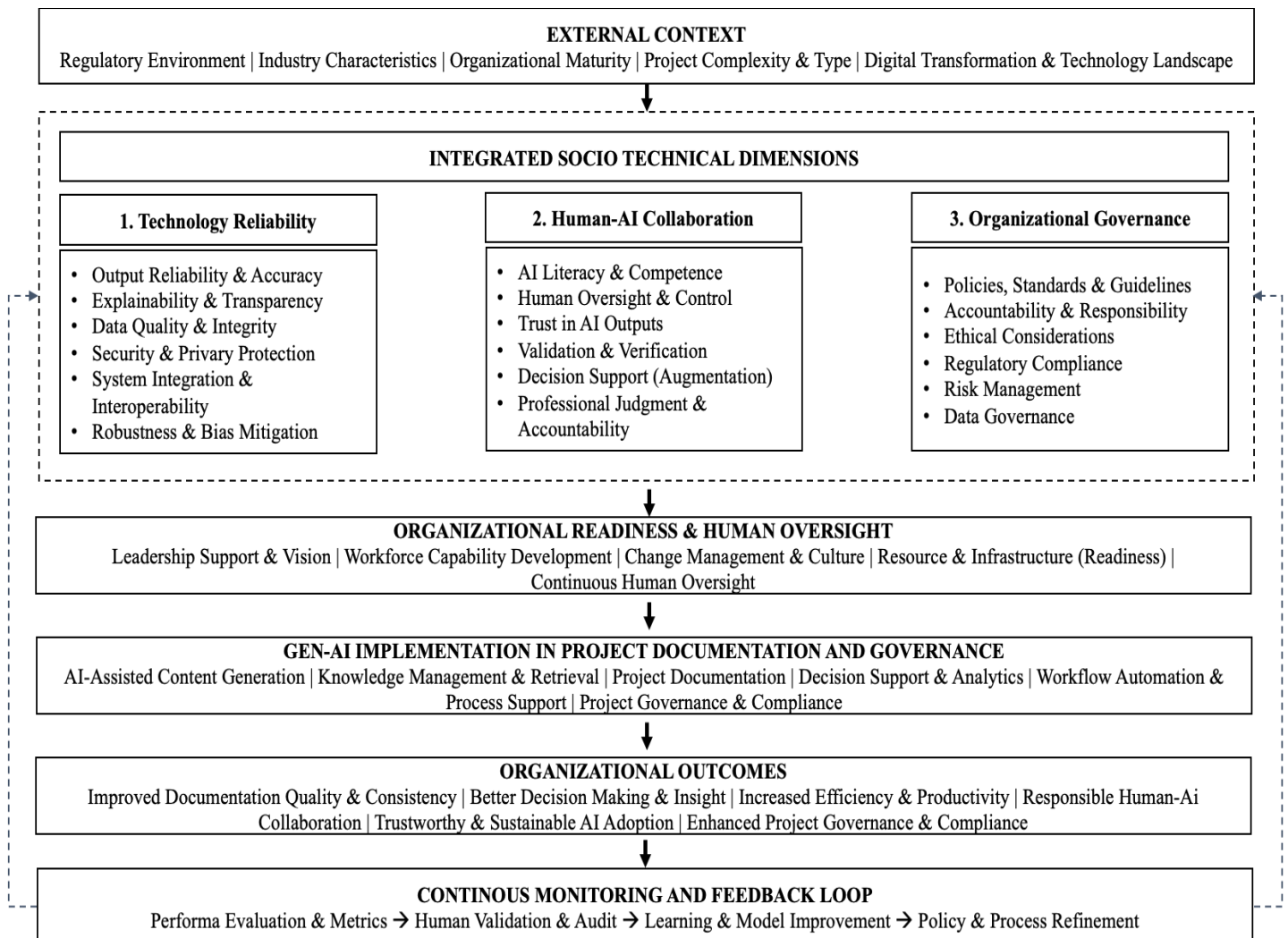


Figure 1. Integrated Socio-Technical Conceptual Framework for Responsible Generative AI Implementation in Project Documentation and Governance

CONCLUSION

Generative Artificial Intelligence (GenAI) is revolutionizing project documentation and governance, by reimagining project knowledge generation, governance, validation, and usage across the project life cycle. This

exploratory literature review reveals that implementation success for GenAI has not been solely dependent on the technological capabilities, but also requires Human–AI interactions and organizational governance. GenAI is not just a technological breakthrough, but a socio-technical shift that involves harmonising intelligent technologies with the expertise of human beings, organizational processes, and governance structures.

One of the major contributions of this study is the establishment of an integrated socio-technical conceptual framework that brings together these three interrelated dimensions into a single perspective to understand the implementation of responsible GenAI. The review, which combines findings from AI, information systems, project management, organizational studies, and governance literature, tackles the disjointedness of current AI studies and offers theoretical and practical knowledge for organizations that want to use GenAI responsibly.

While GenAI holds significant promise for enhancing documentation processes, knowledge management, and decision-making, organizations remain grappling with several issues, such as reliability, explainability, data quality, accountability, ethical governance, regulatory compliance, cybersecurity, and user trust. This points to the need for a coordinated effort in governance mechanisms, skills, readiness of the organization, and human supervision of the process, rather than just technological progress, in order to realize the goals of sustainable GenAI adoption.

There are a number of limitations of this study. It is an exploratory literature review in which the focus is on concept synthesis and not on statistical generalizations. Furthermore, the literature was searched only in the Scopus database and there might be some studies that have not been indexed in this database. The proposed conceptual framework is still theoretical and has not been validated empirically although there is a structured quality assessment framework which was included to provide additional methodological transparency.

The theoretical model needs to be validated and elaborated through further research in different organizational and industrial settings. Comparative studies on differences in organizational maturity, project complexity, governance capacity and regulatory frameworks will deepen the insight into implementation strategies that are specific to the context and further improve the theoretical foundation and practical relevance of the framework.

REFERENCES

1. Amershi, S., Weld, D., Vorvoreanu, M., Fourney, A., Nushi, B., Collisson, P., ... & Suh, J. (2021). Guidelines for human-AI interaction. *Proceedings of the CHI Conference on Human Factors in Computing Systems*, 1-13.
2. Bélisle-Pipon, J. C., Couture, V., & Roy, M. C. (2023). Artificial intelligence ethics and socio-technical systems in organizations. *AI and Ethics*, 3(2), 445-458.
3. Bender, E. M., Gebru, T., McMillan-Major, A., & Shmitchell, S. (2021). On the dangers of stochastic parrots: Can language models be too big? *Proceedings of the ACM Conference on Fairness, Accountability, and Transparency*, 610-623.
4. Bommasani, R., et al. (2021). On the opportunities and risks of foundation models. *Stanford Center for Research on Foundation Models*, 1-218.
5. Crawford, K. (2021). *Atlas of AI: Power, politics, and the planetary costs of artificial intelligence*. Yale University Press.
6. Creswell, J. W., & Plano Clark, V. L. (2023). *Designing and Conducting Mixed Methods Research* (4th ed.). SAGE.
7. Dwivedi, Y. K., Kshetri, N., Hughes, L., Slade, E. L., Jeyaraj, A., Kar, A. K., ... & Wright, R. (2023). So what if ChatGPT wrote it? Multidisciplinary perspectives on opportunities, challenges and implications of generative conversational AI. *International Journal of Information Management*, 71, 102642.
8. Elsevier. (2025). *Scopus Content Coverage Guide*. Elsevier. <https://www.elsevier.com/solutions/scopus>
9. European Commission. (2024). Regulation (EU) 2024/1689 laying down harmonised rules on artificial intelligence (Artificial Intelligence Act).

10. Faraj, S., Pachidi, S., & Sayegh, K. (2021). Working and organizing in the age of the learning algorithm. *Information and Organization*, 31(1), 100371.
11. Flemming, K., & Noyes, J. (2021). Qualitative Evidence Synthesis: Where Are We at? *International Journal of Qualitative Methods*, 20, 1–11. <https://doi.org/10.1177/1609406921993276>
12. Floridi, L., & Chiriatti, M. (2020). GPT-3: Its nature, scope, limits, and consequences. *Minds and Machines*, 30(4), 681-694.
13. Floridi, L., & Cows, J. (2019). A unified framework of five principles for AI in society. *Harvard Data Science Review*, 1(1).
14. Floridi, L., Holweg, M., Taddeo, M., Amaya Silva, J., Mökander, J., & Wen, Y. (2021). CapAI—A procedure for conducting conformity assessment of AI systems in line with the EU Artificial Intelligence Act. *AI and Ethics*, 2(4), 1-14.
15. Glikson, E., & Woolley, A. W. (2020). Human trust in artificial intelligence: Review of empirical research. *Academy of Management Annals*, 14(2), 627-660. <https://doi.org/10.5465/annals.2018.0057>
16. Gusenbauer, M., & Haddaway, N. R. (2020). Which academic search systems are suitable for systematic reviews or meta-analyses? Evaluating retrieval qualities of Google Scholar, PubMed, and 26 other resources. *Research Synthesis Methods*, 11(2), 181–217. <https://doi.org/10.1002/jrsm.1378>
17. Herrmann, T., & Pfeiffer, S. (2023). Keeping the organization in the loop: A socio-technical extension of human-centered artificial intelligence. *AI & Society*, 38, 1523–1542. <https://doi.org/10.1007/s00146-022-01391-5>
18. Hong, Q. N., Fàbregues, S., Bartlett, G., Boardman, F., Cargo, M., Dagenais, P., Griffiths, F., Nicolau, B., O'Cathain, A., Rousseau, M.-C., Vedel, I., & Pluye, P. (2018). The Mixed Methods Appraisal Tool (MMAT) version 2018 for information professionals and researchers. *Education for Information*, 34(4), 285–291. <https://doi.org/10.3233/EFI-180221>
19. Jarrahi, M. H., Memariani, A., & Guha, S. (2023). The principles of human-AI interaction and collaboration. *International Journal of Information Management*, 67, 102512.
20. Kerzner, H. (2022). *Project management: A systems approach to planning, scheduling, and controlling* (13th ed.). Wiley.
21. Kim, J. Y., et al. (2025). Establishing organizational AI governance in healthcare: A case study in Canada. *npj Digital Medicine*, 8, 522.
22. Latour, B. (2005). *Reassembling the social: An introduction to actor-network-theory*. Oxford University Press.
23. Long, D., & Magerko, B. (2020). What is AI literacy? Competencies and design considerations. *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*, 1-16.
24. Martín-Martín, A., Thelwall, M., Orduna-Malea, E., & Delgado López-Cózar, E. (2021). Google Scholar, Microsoft Academic, Scopus, Dimensions, Web of Science, and OpenAlex: Strengths and weaknesses for research evaluation. *El Profesional de la Información*, 30(6), e300605.
25. OECD. (2021). *OECD principles on artificial intelligence*. OECD Publishing.
26. OpenAI. (2023). GPT-4 Technical Report. ArXiv:2303.08774 [Cs]. <https://doi.org/10.48550/arXiv.2303.08774>
27. Page, M. J., Moher, D., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., et al. (2021). PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ*, 372, n71. <https://doi.org/10.1136/bmj.n71>
28. Raisch, S., & Krakowski, S. (2021). Artificial intelligence and management: The automation-augmentation paradox. *Academy of Management Review*, 46(1), 192-210.
29. Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, 104, 333–339. <https://doi.org/10.1016/j.jbusres.2019.07.039>
30. Stahl, B. C., & Wright, D. (2024). Ethics and privacy in AI governance frameworks. *AI and Society*, 39(1), 77-91.
31. Thomas, J., & Harden, A. (2008). Methods for the thematic synthesis of qualitative research in systematic reviews. *BMC Medical Research Methodology*, 8, 45. <https://doi.org/10.1186/1471-2288-8-45>
32. UNESCO. (2021). *Recommendation on the ethics of artificial intelligence*. UNESCO.

33. Venkatesh, V., Brown, S. A., & Bala, H. (2013). Bridging the qualitative–quantitative divide: Guidelines for conducting mixed methods research in information systems. *MIS Quarterly*, 37(1), 21–54.
34. Weidinger, et al & Gabriel, I. (2022). Ethical and social risks of harm from language models. arXiv preprint arXiv:2112.04359.
35. Yu, X., Xu, S., & Ashton, M. (2022). Antecedents and outcomes of artificial intelligence adoption and application in the workplace: The socio-technical system theory perspective. *Information Technology & People*, 36(1), 454–474. <https://doi.org/10.1108/ITP-04-2021-0254>