Organising Projects for Responsible Use of Generative Artificial Intelligence in Project Management

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The use of Artificial Intelligence (AI), especially Generative AI (GenAI), in project management is a dynamic process that imposes some requirements on project design and implementation. This paper examines the impact of GenAI use on project management, emphasising the practical need for adaptive competence development and introducing new roles in project teams. The authors explore the transition from traditional project management roles to AI-enhanced ones, providing a detailed framework for the responsible use of GenAI in project management. The following key areas were studied: the GenAI's role in project management processes requiring predictive analytics, decision assistance and automation, and the strategic influence of GenAI in organizations managing projects, showcasing its potential and power. Project organization recommendations are developed to ensure ethical, efficient, and transparent use of GenAI, fostering trust and improving project success. This research contributes both to the theory and practice of project management.
Keywords: Project management, Project organizing, Project roles, Generative artificial intelligence (GenAI), Responsible use

1 Introduction

The evolution of project management theoretical background, reflected by the extension of system-of-systems, self-organising systems, innovative systems and learning systems usage in the project management domain, has significantly influenced how projects are organised and managed. These new project management approaches have challenged traditional project management concepts by emphasising the importance of holistic project design and execution [1]. The application of design thinking in complex projects signifies a shift towards more creative and adaptive problem-solving methodologies in project management [2]. In this evolving landscape, the role of project managers has also transformed.

The evolution of project management theory and practices is also significantly influenced by the advancements in technologies applied to projects, especially artificial intelligence. Several studies explore the fusion of technological capabilities with human-centric skills that enhance decision-making, project leadership, and project success [3]. Adopting artificial intelligence (AI), especially Generative AI (GenAI) in organisations, has significantly changed work processes, affecting professional knowledge and skills requirements. While AI adoption can bring new opportunities and improved job satisfaction, it poses challenges and risks, such as fear and distrust among recruiters and changes in employee roles and expectations. [4]. The concept of responsible AI use in project management emphasises the ethical, transparent, and beneficial implementation of AI technologies to ensure they serve the interests of all stakeholders involved. This approach is crucial for maintaining trust, enhancing decision-making, and improving project outcomes without compromising ethical standards or data privacy. Research has shown that AI, particularly machine learning, can significantly benefit project management by enhancing planning, measurement, and decision-making capabilities [5].

Project organisation is a fundamental aspect of project management that involves structuring and coordinating resources, tasks, and stakeholders to achieve project goals efficiently and effectively. The project organisation defines the roles, responsibilities, and relationships among team members, stakeholders, and other entities involved in the project. Project organigrams, which visually represent the project's organisational structure, help understand the hierarchy, reporting lines, and communication channels within the project team. Clear project roles and relationships are essential for ensuring accountability, promoting effective communication, and streamlining decision-making processes throughout the project lifecycle.

Traditional project management approaches, once focused on planning and control, are now evolving. They are shifting towards emphasising the importance of people, relationships, and adaptability in achieving project success [6]. As projects become more complex, the demand for new skills in project management is increasing. The boundaries of project management are being challenged by the need for greater flexibility and adaptability in managing projects in a globalised environment. Project managers are now expected to navigate constantly changing challenges and seize emerging opportunities by embracing adaptive project management frameworks. This shift reflects the need for an open project manager mindset associated with enforcing cognitive skills such as creativity, critical thinking, innovation, etc. [7]. It is a call for continuous learning and adaptation in your roles.

The role of the project manager has shifted towards prioritising people and relationships over traditional planning and control functions, highlighting the importance of emotional intelligence and relationship management in project success [8]. As projects evolve and become more intricate, the need for flexibility in project management to adapt to changing project dynamics becomes increasingly essential. This emphasis on adaptability underscores the dynamic nature of modern project management, requiring project managers to be agile and responsive to change [9].

Project management roles, once primarily focused on time, cost, and quality management [10], have undergone a significant transformation. Traditionally confined to the project management triangle, project managers are now tasked with a broader range of responsibilities. This shift, marked by a growing emphasis on managing relational, cultural, and stakeholder issues alongside core project objectives [11], underscores the importance of staying abreast of the evolving landscape of project management. Many questions and challenges emerge as organisations transition from traditional plan-driven development to agile methodologies like Scrum. These pertain to aligning traditional project management roles with agile frameworks [12]. This evolving landscape has prompted a re-evaluation of project management roles within project teams and the corresponding responsibilities. In agile software development, comparisons have been drawn between roles like Scrum Master, Product Owner, and Scrum Team Member and traditional project manager roles, leading to a reassessment of the skills and functions needed in modern project management settings.

The paper is structured as follows: The literature review section discusses traditional project roles and GenAI-related roles and compares them based on the identified gaps and overlaps. The next section of the paper presents and explains several recommendations for designing the project organisation structure to enhance GenAI's responsible use in projects. Also, the project organisation deployment is shown. The Discussion and Conclusion section presents the paper's practical contributions.

2 Literature review

Organizing projects includes the processes of defining roles, responsibilities, and relationships among team members, stakeholders, and other entities involved in the project. The project organization evolves in time, including different categories components and relationships

2.1 Classic project management roles

To understand the roles of the Project Manager, Project Sponsor, Team Members, Stakeholders, and Business Analyst in project management, it is crucial to recognise each role's distinct responsibilities and contributions to the project environment.

The Project Manager oversees the entire project lifecycle, from planning and execution to closure. Their leadership competencies and management style significantly impact project success, a factor that has sometimes been overlooked in the literature. The Project Manager is responsible for coordinating various project activities, ensuring adherence to timelines, budgets, and quality standards, and effectively managing the project team to achieve project objectives [13].

The **Project Sponsor** is critical in providing financial resources and overall support for the project. The sponsor is accountable for offering leadership to align project goals with the organisation's vision and broader objectives, guiding the project towards successful outcomes [14].

As integral parts of the project, **Team Members** are responsible for executing tasks outlined in the project plan [15]. Their active participation and collaboration are essential for achieving project deliverables within the specified constraints.

Lastly, the **Business Analyst** contributes to the project by defining and documenting business requirements [16]. This role involves analysing business needs, identifying solutions, and translating requirements into functional specifications that guide the project's development and implementation. The Business Analyst bridges business stakeholders and the project team, ensuring that project deliverables align with organisational objectives and effectively meet user needs.

2.2 Project management roles in the agile world

The **Product Owner** is pivotal in the Scrum framework, representing the stakeholders' interests and ensuring the development team delivers value to the customer [17]. This role involves defining and prioritising the product backlog, communicating the product's vision to the team, and making decisions on behalf of the stakeholders.

On the other hand, the **Scrum Master** is a facilitator and coach for the Scrum team, ensuring that the team adheres to the Scrum principles and practices [18]. The Scrum Master is responsible for removing impediments that hinder the team's progress, facilitating Scrum events such as sprint planning and daily stand-ups, and fostering a culture of continuous improvement.

The **Development Team** consists of professionals responsible for delivering potentially shippable increments of the product at the end of each sprint [17]. Unlike the Product Owner and the Scrum Master, the Development Team does not have specific roles assigned, emphasising collective responsibility for the work, and encouraging collaboration and shared ownership of tasks.

Finally, the **Agile Coach** supports organisations and teams in their agile transformation journey [19]. Agile Coaches provide training, mentoring, and guidance to help teams adopt agile practices and principles effectively [20].

3 Reshaping of project management roles due to AI use

AI is increasingly recognised for its potential impact on project management. The use of AI, especially machine learning algorithms, enhances project planning, measurement, and uncertainty management [5]. AI offers advanced forecasting capabilities and decision-making support, revolutionising project management practices [21]. It efficiently handles complex tasks, improving performance across project management domains.

AI is leveraged for predictive analytics, resource optimisation, risk assessment, and automating repetitive tasks, thereby enhancing overall project efficiency and effectiveness [22]. Additionally, AI automates software engineering tasks, including project management, modelling, testing, and development, contributing to improved project outcomes [23].

AI's potential in project management spans various sectors, such as construction, IT, tourism, and academia. It enhances project

planning accuracy, efficiency, and safety in construction projects [24]. AI supports intelligent service management platforms in tourism for better government functions [25]. In academia, GenAI impacts research, teaching, and service areas [26].

AI adoption in project management is driven by its ability to process large datasets, identify patterns, learn, and make predictions, transforming decision-making processes [27]. AI technologies, including artificial neural networks and reinforcement learning, are increasingly integrated into project management to optimise resource allocation and enhance decision-making [28].

AI's impact extends beyond operational tasks to influence strategic areas like corporate governance, team building, and project manager selection [29]. It includes emotional intelligence integration, knowledge innovation management, dynamic knowledge flow and stock management [3]. AI enhances enterprise management practices and public service delivery and minimises bias in recruitment and selection processes in the public sector [30].

As AI/GenAI advances, project managers must adapt by acquiring new skills and leveraging AI-driven technologies to enhance project outcomes [31]. Despite AI's efficiency, accuracy, and automation benefits, concerns about job displacement, ethical implications, and the need for upskilling remain [32]. Understanding AI's implications and proactively addressing challenges is crucial for optimising project performance and outcomes. Table 1 presents the main project tasks and roles impacted by AI/GenAI use.

Table 1. The main project tasks and roles impacted by AI/GenAI use

AI/GenAI functionality	Impacted tasks categories	Task changes	Impacted Project Roles
Predictive Analytics and Forecasting	Project Planning, Risk Assessment, Resource Optimization, Project Success Prediction	Enhances accuracy and efficiency in planning by predicting future trends, identifying potential risks earlier, optimising resource allocation, and forecasting project outcomes with greater accuracy. (It may need to be complemented with predictive AI for enhanced forecasting and risk assessment.)	Project Manager, Business Analyst
Decision-Making Support and Pattern Recognition	Decision-Making, Data Analysis	Provides data-driven insights, identifies patterns and trends in large datasets, and supports more informed and accurate decision-making processes. (It may need to be complemented with pattern recognition AI for better data analysis.)	Project Manager, Stakeholders, Business Analyst
Task Automation and Process Optimization	Repetitive Task Automation, Software Development, Process Improvement	Automates routine tasks such as data entry and basic coding, streamlines processes through advanced algorithms, and provides recommendations for efficiency improvements. (May need to be complemented with robotic process automation for complete task automation.)	Development Team, Team Members, Project Manager
Data Processing and Knowledge Management	Data Analysis, Reporting Tasks	Processes vast amounts of data quickly, provides actionable insights, enhances the accuracy and efficiency of reporting tasks, and facilitates dynamic knowledge management. (This may need to be complemented with data processing AI to handle large datasets efficiently.)	Business Analyst, Team Members
AI Integration and Support Platforms	Project Coordination, Project Implementation, Change Management	Enhances project coordination and collaboration through advanced communication tools, real-time updates, and automated scheduling. Provides tools for better planning and execution and assists in change management by predicting impacts and facilitating smoother transitions. (It may need to be complemented with AI-driven project management tools for comprehensive support.)	Project Manager, Team Members

AI/GenAI functionality	Impacted tasks categories	Task changes	Impacted Project Roles
Strategic Influence	Strategic Decision-Making and Team Building Activities	Supports strategic decision-making by providing deep insights and forecasting capabilities and enhances team building through improved communication and emotional intelligence tools. (May need to be complemented with decision support systems for strategic insights.)	Project Manager, Project Sponsor, Stakeholders
Skill Adaptation	Upskilling and Training Activities	Identifies skill gaps and provides personalised training programs, ensuring team members can adapt to and leverage new AI-driven project management practices. (May need to be complemented with adaptive learning AI for personalised training.)	Project Manager, Team Members

Various roles are crucial in ensuring successful outcomes in projects involving AI (see table 2). One key role is the **AI Project Manager**, who oversees the planning, execution, and delivery of AI projects [31]. The AI Project Manager coordinates different teams, manages resources, and meets project goals within the specified time frame and budget. This role requires a deep understanding of AI technologies, project management methodologies, and practical communication skills to liaise with stakeholders and team members.

Another essential role in AI projects is the **AI Specialist/Engineer** tasked with developing and implementing AI solutions [32]. AI Specialists/Engineers work closely with data scientists, analysts, and other team members to design, build, and deploy AI models that address specific business needs. Their responsibilities include data pre-processing, model training, testing, and optimisation to ensure the AI system functions effectively and efficiently.

The role of the **AI ethics and compliance officer** is gaining prominence in the realm of AI ethics and compliance [33]. This position ensures that AI systems are developed and deployed ethically and responsibly, adhering to regulatory requirements and ethical guidelines. The AI Ethics and Compliance Officer identifies and mitigates potential biases, risks, and ethical dilemmas associated with AI technologies, promoting transparency and accountability in AI projects.

Data Scientists and analysts are integral to AI projects and responsible for collecting, analysing, and interpreting data to derive valuable insights [34]. They work closely with AI Specialists and engineers to preprocess data, build predictive models, and evaluate model performance. Data Scientists and analysts are critical in informing decision-making processes within AI projects by providing data-driven recommendations and solutions.

AI Trainers/Facilitators are essential in projects involving AI systems requiring training data to learn and improve performance [35]. These professionals curate and label datasets, design training protocols, and fine-tune AI models to enhance accuracy and reliability. AI Trainers/Facilitators collaborate with data scientists and AI Specialists/Engineers to ensure that AI models are effectively trained to achieve desired outcomes.

Lastly, **ML Engineers/MLOps Engineers** are pivotal in projects that involve machine learning (ML) technologies [32]. These professionals are responsible for developing ML models, deploying them into production environments, and implementing MLOps practices to streamline the ML lifecycle. ML Engineers/MLOps Engineers collaborate with cross-functional teams to ensure the scalability, reliability, and efficiency of ML solutions within projects.

Table 2. The comparison between traditional and emerging roles

Traditional Role	Responsibilities of Traditional Role	Emerging Role due to GenAI use	Responsibilities of Emerging Role
Project Manager	Oversees the entire project lifecycle, from planning and execution to closure, ensuring project success.	**AI Project Manager**	Utilises AI tools to automate planning, monitoring, and control of projects, providing data-driven insights.
Project Sponsor	Provides financial resources and overall support and aligns project goals with organisational objectives.	**AI Ethics and Compliance Officer**	Ensures AI applications comply with legal and ethical standards, addressing ethical considerations and biases.
Team Members	Execute tasks outlined in the project plan, ensuring deliverables are met within specified constraints.	**AI Specialist/ Engineer**	Develops and implements AI solutions, collaborating with data scientists and other team members.
Stakeholders	Individuals or groups affected by the project outcomes influence project decisions and success.	**AI-Enhanced Business Analyst**	Automates gathering and analysis of business requirements using AI, ensuring alignment with organisational objectives.
Business Analyst	Defines and documents business requirements, bridging business stakeholders and the project team.	**Data Scientist/ Analyst**	Analyses project data using AI, generating predictive analytics and providing actionable insights.
Scrum Master	Facilitates Agile practices, removes impediments, and fosters a culture of continuous improvement.	**AI Trainer/ Facilitator**	Trains AI systems, ensuring they are tailored to project needs and improving AI performance through feedback.
Product Owner	Represents stakeholders, prioritises the product backlog, and ensures the product meets end-user needs.	**AI-Driven Change Manager**	Utilises AI to manage organisational change, predict impacts, and develop change management strategies.
Development Team	Delivers potentially shippable increments of the product and emphasises collective responsibility.	**ML Engineer/ MLOps Engineer**	Develops ML models, deploys them into production, and implements MLOps practices to streamline the ML lifecycle.

3 The GenAI impact on the requirements about project management competencies

Integrating GenAI into project management practices has garnered increasing interest and research attention. Numerous studies have emphasised the significant role that AI, especially machine learning, plays in enhancing various aspects of project management. AI technologies significantly improve project planning, measurement, and uncertainty performance domains [5]. AI can improve project management processes by offering advanced forecasting and decision-making capabilities. Additionally, AI applications in project management have been demonstrated to enhance project planning accuracy, efficiency, safety, and error reduction [24].

The influence of AI on project management skills is evident in how it impacts the competencies necessary for project success.

Research has indicated that project managers' competencies, emotional intelligence, and transformational leadership significantly influence project outcomes [36]. Practical leadership skills, including emotional intelligence, are vital for project managers to successfully navigate projects and focus on achieving project goals [37]. Moreover, emotional intelligence has been linked to project success, with dimensions such as self-awareness and self-regulation of project managers positively affecting construction project outcomes [37].

The application of AI in project management extends to areas such as risk management, resource optimisation, and predictive analytics [22]. AI technologies empower project managers to automate repetitive tasks, assess risks more effectively, and optimise resource allocation, enhancing overall project performance. Additionally, AI's role in project

management transcends operational aspects; it also influences human skills such as emotional intelligence, interpersonal skills, and transformational leadership, which are crucial for ensuring safety and improving project outcomes [39].

As project management evolves in the era of AI, there is a growing recognition of the necessity for project managers to develop new skills and adapt to technological advancements. The emergence of the Fourth Industrial Revolution has underscored the importance of project managers being prepared to embrace AI tools and technologies [40]. This readiness assessment is critical to ensure that project managers can effectively leverage AI to drive digital innovation and project success. Furthermore, integrating AI applications in project management necessitates project managers possess critical thinking, problem-solving, and collaboration skills to work alongside AI systems [41] effectively. Table 3 presents relevant changes in the project management competences, due to the AI/GenAI use.

Table 3. AI/GenAI impact on project management competences

Competence Category	Impacted Competences	Changes on competences
Technical	Planning, Measurement, Risk Management, Resource Optimization, Automation, Predictive Analytics	It has enhanced accuracy, efficiency, and performance through advanced forecasting, risk assessment, optimisation, and automation.
Leadership	Transformational Leadership, Decision-Making, Critical Thinking, Problem-Solving	Improved decision-making and leadership practices supported by AI-driven insights, promoting critical thinking and problem-solving abilities.
Emotional Intelligence	Self-awareness, Self-Regulation, Interpersonal Skills, Collaboration	Enhanced self-awareness and regulation, better collaboration with AI systems and team members, improving project outcomes.
Innovation	Digital Innovation, Technological Adaptation	Encourages the adoption and adaptation to AI tools and technologies, driving digital innovation in projects.
Safety and Error Reduction	Safety Management	Enhances project safety and reduces errors through precise planning and monitoring.

AI/GenAI impacts various skill categories in project management, enhancing technical, leadership, emotional intelligence, innovation, and safety skills. AI-driven advancements improve accuracy, efficiency, decision-making, collaboration, and innovation while enhancing safety and reducing errors through precise planning and monitoring.

4 Examples of Generative AI use that impact different project roles

To demonstrate our previous comparisons of new roles to their emerging equivalents, we shall provide examples of two selected roles: business analyst and project manager. These roles are selected as they, in several cases, do not use coding skills. These examples demonstrate that using generative AI like Chat GPT and the application UI design tool Figma can broaden role skills. Also, these two roles are selected due to the scope and brevity of this paper, and more examples can be given for other roles. The examples demonstrate that by using generative AI tools, the two described roles can use code skills to enhance their tasks, which would otherwise require high motivation and time to acquire those skills.

4.1 Example of Generative AI use that impact the role business analyst

In figure 1 there is an annotated SQL script that helps a business analyst perform complex data analysis on sales data without needing deep SQL knowledge. The script calculates total sales per product category for the last quarter, adjusting for returns and discounts. Each code line includes comments explaining its purpose, making it easier for non-technical users to understand and utilise the query for business insights.

Fig. 1. Chat GPT 4o generated SQL code

The prompt used to generate the code is the following:

"Generate an SQL query to calculate the total sales per product category for the last quarter. The data is stored in multiple related tables. Each order item has a quantity, unit price, and discount amount. Returns are recorded in a separate table. The query should join the necessary tables, calculate the total sales amount, adjust for returned items, subtract any discounts, and group the results by product category. Additionally, provide comments for each line of the code to explain its purpose."

Figure 2 presents the process of generating detailed wireframes by using Figma tool.
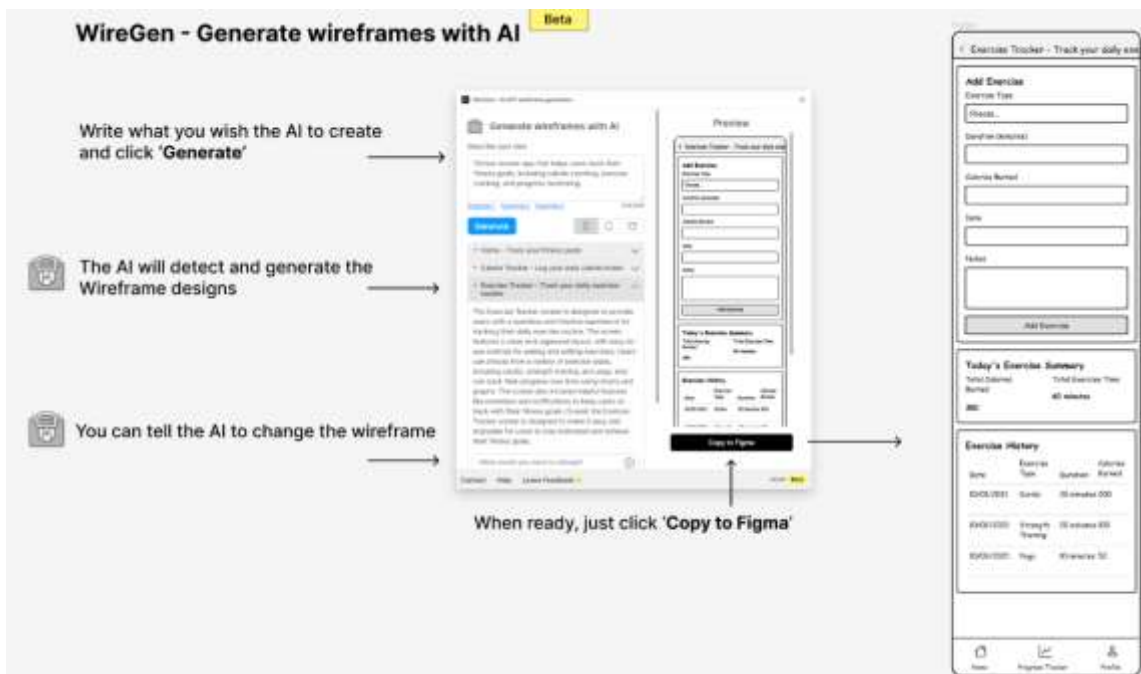

Fig. 2. Figma generated wireframe – source Figma, Inc.

This tool empowers a business analyst by allowing them to create detailed wireframes simply by describing their requirements in plain language. Without needing any design skills, they can quickly generate, review, and modify wireframes, streamlining the process of drafting technical requirements. Once satisfied, the wireframes can be seamlessly

transferred to Figma for further refinement by designers.

4.2 Example of Generative AI use that impact the role project manager

Project managers usually process their data using tools like Excel, which has some limitations on advanced data analysis. In figure 3 there is an example of the code that processes existing data into a helpful summary.

```python
import pandas as pd

# Load resource allocation data
allocations = pd.read_csv('resource_allocations.csv')

# Group by resource and calculate total allocated hours
resource_summary = allocations.groupby('resource_name').agg(
    total_hours=pd.NamedAgg(column='allocated_hours', aggfunc='sum')
).reset_index()

# Identify overbooked resources (assuming 40 hours per week is the limit)
overbooked_resources = resource_summary[resource_summary['total_hours'] > 40]

# Output the summary and overbooked resources
print("Resource Allocation Summary:")
print(resource_summary)
print("\nOverbooked Resources:")
print(overbooked_resources)
```

Fig 3. Chat GPT 4o Python generated code

The prompt used to generate the code is the following:

> *"Generate a Python script using Pandas to analyse resource allocation data from a CSV file. The script should perform the following:*
> - *Load the resource allocation data from 'resource_allocations.csv'.*
> - *Group the data by resource name and calculate the total allocated hours for each resource.*
> - *Identify overbooked resources, assuming a limit of 40 hours per week.*
> - *Output a summary of the allocated hours per resource and list any overbooked resources.*
> - *Include comments for each step to explain the purpose of the code."*

5 Recommendations for project organising to enhance the GenAI responsible use

The proposed project organising encompasses several critical phases and aims to enhance the responsible use of Generative AI (GenAI) in projects (figure 4). Each stage is formulated to ensure ethical, proficient, and efficient integration of GenAI into project management procedures, guaranteeing responsible use.

During the initiation phase, establishing governance structures and delineating the scope and objectives of GenAI integration within the project is essential. Appropriate governance ensures that GenAI is utilised responsibly and aligned with organisational objectives and ethical principles. Clearly defined goals and scope establish specific expectations and offer guidance for the subsequent stages, promoting cohesive integration.

The development phase focuses on formulating comprehensive policies and guidelines for GenAI utilisation, creating training materials for team members, and establishing robust risk management and incident response plans. Protocols and directives provide a systematic structure for responsible GenAI utilisation, while educational resources ensure that team

members are adequately equipped to collaborate with GenAI technologies. Efficient risk management and incident response strategies are crucial for mitigating potential hazards and handling challenges that emerge during execution, ensuring a seamless integration process.

Training initiatives devised in the prior phase are executed throughout the implementation phase, and mechanisms for oversight and transparency of GenAI usage are enforced. Educational programs equip team members with the essential competencies to leverage GenAI tools and grasp the related ethical considerations. Mechanisms for supervision and openness uphold accountability and ensure that GenAI is employed by established protocols, thereby fostering trust and adherence.

In the operational phase, new responsibilities, and procedures for integrating GenAI will become fully operational. Routine assessments and inspections are carried out to evaluate the efficiency of GenAI integration and adherence to protocols. Ensuring that the responsibilities and procedures operate as planned is critical for the success of GenAI integration. Routine assessments and inspections aid in identifying areas for enhancement and ensuring continual adherence to ethical principles, upholding the credibility and efficacy of project operations.

The improvement phase underscores continuous enhancement through feedback gathering, essential modifications, and revising educational resources and protocols based on new insights and advancements in GenAI.
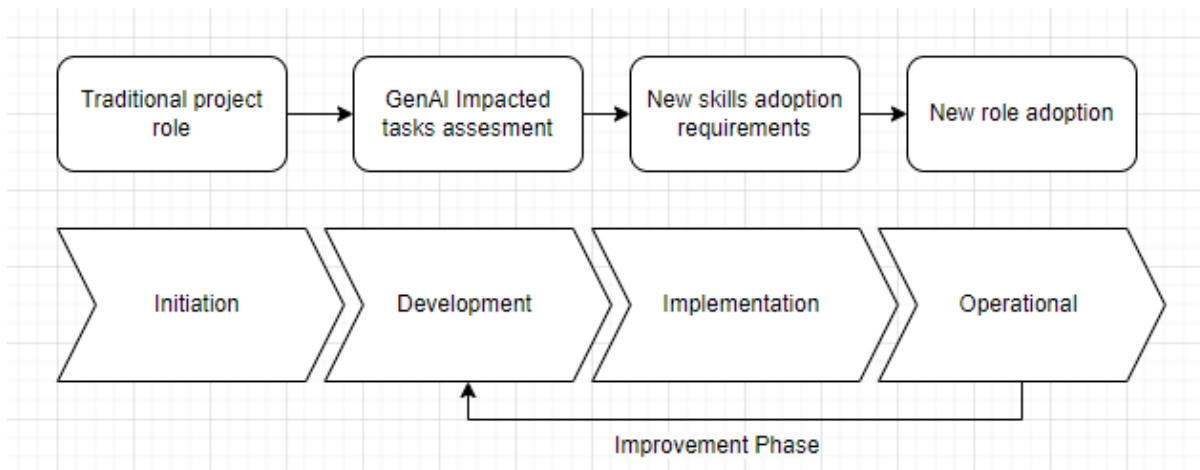

Fig. 4. Diagram for project organisation design

The detailed process in Table 4 outlines the phases necessary for deploying a project organisation that responsibly integrates Generative AI (GenAI). It ensures the ethical and efficient use of GenAI through structured transitions in tasks, skills, and roles, directly impacting the deployment of the project organisation.

Table 4. Detailed project organisation design

Phase	Step	Description
Task Transition Process	Traditional Task Identification	Identify current tasks performed within the project management framework.
	Task Impact Analysis	Analysing which tasks can be enhanced, automated, or transformed using GenAI.
	Task Reengineering	I am redesigning tasks to incorporate GenAI capabilities, improving efficiency and effectiveness.
	Task Implementation	Implementing the redesigned tasks into the project workflow, monitoring performance and making adjustments as necessary.
	Traditional Skills Assessment	Assessment of current skills within the project management framework.

Phase	Step	Description
Skill Transition Process	GenAI Skills Impact Assessment	Evaluation of how current skills are impacted by GenAI, identifying skill gaps.
	Skills Development Planning	Planning and outlining the training programs and resources required to develop new skills.
	Skills Integration	Integration of new skills into the workflow, ensuring they are effectively utilised.
Role Transition Process	Traditional Project Role	Current roles in a project management framework before the integration of GenAI.
	GenAI Impacted Tasks Assessment	Evaluation of how tasks performed by traditional roles are impacted by GenAI, identifying tasks for enhancement or automation.
	New Skills Adoption Requirements	Identify new skills required to effectively use GenAI in impacted tasks, outlining training and skill development needs.
	New Role Adoption	The transition of traditional roles into new roles that leverage GenAI capabilities, finalising role adoption.
Implementation Phases	Initiation	Forming governance structures and defining scope and objectives for integrating GenAI.
	Development	Developing policies, guidelines, and training materials; setting up risk management and incident response plans.
	Implementation	Rolling out training programs and deploying tools for monitoring and transparency.
	Operational	Fully operational new roles and processes; conducting regular evaluations and audits.
	Improvement Phase	A continuous loop of collecting feedback, making adjustments, and updating training and policies based on new insights and advancements.

Task Transition Process starts with identifying current tasks, analysing which can be enhanced by GenAI, reengineering tasks to incorporate GenAI capabilities, and implementing these redesigned tasks while monitoring and adjusting as needed. This process directly influences the structure and workflow of the project organisation.

In the **Skill Transition Process**, you can assess your current skills and identify gaps impacted by GenAI. This will lead to the development of targeted training programs, which will ensure you can effectively utilise GenAI when integrated into the workflow. This process will redefine your organisational roles and responsibilities, offering a platform for personal growth and development.

Role Transition Process, which you will participate in, evaluates traditional roles and examines how tasks are affected by GenAI. We will identify new skills required for GenAI-impacted tasks, develop necessary training, and transition traditional roles into new ones that leverage GenAI capabilities. This thorough process is essential for successfully deploying a GenAI-integrated project organisation, giving you confidence in the project's success.

Implementation Phases involve forming governance structures, developing policies and training materials, rolling out training and monitoring tools, and conducting regular evaluations and audits. These steps ensure that the new project organisation structure is effectively implemented and continuously improved.

This structured process guarantees that GenAI is integrated into project management in a responsible and ethical manner, aligning with organisational goals and facilitating the deployment of a robust project organization that can adapt to and leverage GenAI technologies.

6 Discussion and conclusions
Integrating Generative Artificial Intelligence (GenAI) in project management presents significant transformations in traditional project roles, tasks, and organisational structures. This study contributes to the literature by providing insights into how GenAI reshapes the landscape of project management,

emphasising the necessity for new skills and roles to accommodate this technological advancement. This paper's primary contribution lies in its detailed recommendations for designing a project organisation structure that supports the responsible use of GenAI. The proposed framework encompasses critical phases: initiation, development, implementation, operational, and continuous improvement. This structured approach ensures that GenAI is integrated ethically and efficiently, aligning with organisational goals and fostering stakeholder trust.

From a practical perspective, this research highlights the evolving roles of project managers and other key players in the context of GenAI. Traditional roles such as Project Manager, Team Member, and Business Analyst are significantly impacted by GenAI capabilities, necessitating the acquisition of new skills and competencies. For instance, the role of the AI Project Manager involves using AI tools for better planning and decision-making. At the same time, the AI Specialist/Engineer focuses on developing and implementing AI solutions. The findings underscore the importance of emotional intelligence, transformational leadership, and adaptive skills in managing AI-driven projects. As AI automates routine tasks and optimises resource allocation, project managers must focus on strategic decision-making, stakeholder engagement, and encouraging a culture of continuous improvement. The emphasis on critical thinking, problem-solving, and collaboration skills is essential for effectively integrating AI technologies into project workflows. The paper identifies AI's influence in enhancing team-building activities and supporting strategic decision-making. The role of the AI Ethics and Compliance Officer is pivotal in ensuring that AI applications comply with ethical standards and mitigate potential biases. This role enhances transparency and accountability and builds stakeholder trust in AI-driven projects. This research's practical contributions extend to developing training programs and educational resources to equip project teams with the necessary skills to leverage GenAI. The proposed governance structures and risk management strategies ensure that GenAI is utilised responsibly, addressing potential challenges and facilitating smooth transitions during integration. In conclusion, integrating GenAI into project management necessitates comprehensively re-evaluating traditional roles, tasks, and skills. This study provides a valuable framework for designing a project organisation structure that supports the responsible use of GenAI, contributing to theoretical and practical advancements in project management. The recommendations offered can serve as a guideline for organisations seeking to harness the potential of GenAI while maintaining ethical standards and enhancing project outcomes.

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