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The Role of Artificial Intelligence in Managing Scientific Research Projects Funded by KEGA and VEGA Grant Schemes

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Abstract

The article examines the application of Artificial Intelligence (AI) in managing scientific and educational projects funded by the KEGA and VEGA grant schemes in Slovakia. The objective is to analyse how AI contributes to more efficient management of project processes, including the initiation, planning, implementation, monitoring, and closure of projects. Research identifies key areas where AI provides significant benefits, such as automation of administrative tasks, optimisation of resource allocation, and decision-making support through predictive analysis. The article also highlights the utilisation of AI tools, such as chatbots and advanced machine learning algorithms, to improve communication and monitoring project activities. The findings indicate that AI not only facilitates the complex grant management but also improves the quality of achieved outcomes. Despite these positive contributions, the research has revealed several challenges, including insufficient integration of AI in certain phases of the project lifecycle and concerns about the ethical use of these technologies. Recommendations include the need to further education of project managers in AI-related areas and the development of strategies for their effective implementation. The article offers a fresh perspective on the use of AI in project management and introduces valuable tools and methodologies that can help project teams in achieving superior results.

Keywords: *Artificial Intelligence (AI), Grant Project Management, KEGA And VEGA Grants, Process Automation, Predictive Analysis.*

Introduction

In today's rapidly evolving technological landscape, artificial intelligence (AI) has become a powerful catalyst for innovation and efficiency in numerous industries. Within the realm of project management, particularly for grant-funded academic and research initiatives supported by KEGA (Cultural and Educational Grant Agency) and VEGA (Scientific Grant Agency) in Slovakia, project applicants and managers have increasingly identified the transformative potential of AI tools.

KEGA focusses on supporting projects that improve educational practices, develops innovative teaching methodologies, and create cultural materials. VEGA, on the other hand, emphasises the promotion of cutting-edge scientific research across various disciplines. Both grant schemes are instrumental in the promotion of the academic and research landscape, both grant schemes are critical to advancing educational innovation and scientific inquiry; however, their management often entails navigating intricate administrative tasks, optimizing resource allocation, and ensuring effective stakeholder collaboration. As these projects often involve collaboration between institutions and disciplines, effective project management becomes the cornerstone of their success. According to the Slovak Research and Development Agency (2023), a significant portion of project delays and inefficiencies can be attributed to resource mismanagement and inadequate communication, both of which can be mitigated through AI-driven solutions.

According to Russell and Norvig (2020) and Taulli (2020), incorporating AI into project management processes can effectively address challenges, streamline operations, optimise resource distribution, and improve the overall quality and impact of funded projects. Integration of AI into project management is no longer a speculative trend but a necessity, especially for large-scale research initiatives. Studies by, e.g. Muller and Jugdev (2012), European Commission (2022); Smith et al. (2021), or Johnson and Patel (2023)

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and Lee et al. (2024) highlight that AI can assist project managers in automating repetitive tasks, such as scheduling and progress tracking, thereby allowing them to focus on strategic decision-making. For instance, natural language processing (NLP) tools can analyse grant application guidelines, automatically extract key requirements, and help prepare compliant submissions (McKinsey & Company, 2021, Krogmann et al., 2020). Furthermore, predictive analytics can help in resource forecasting and risk management, as demonstrated in recent VEGA-funded projects (VEGA Grant Agency, 2023).

One of the core challenges in the management of the KEGA and VEGA projects is stakeholder communication. AI-powered platforms, such as chatbots and collaborative tools, can improve real-time communication and ensure that all team members are aligned on project goals and timelines (Brynjolfsson & McAfee, 2017). These tools are particularly useful in projects involving multidisciplinary teams spread across different institutions, as they provide a centralised hub for information exchange and decision-making.

Our research focusses on analysing the use of AI in the project management of grant-funded initiatives under the KEGA and VEGA schemes, with a specific emphasis on the perspective of grant applicants. This research seeks to achieve the following objectives:

- Identifying key areas for AI integration: Explore the stages of project proposal preparation and management where AI tools can significantly improve efficiency and effectiveness, such as automating administrative tasks and optimising resource allocation.

- Assessing current AI adoption: Examine the existing use and implementation of AI technologies within KEGA and VEGA projects, identifying trends, success stories, and areas where these tools remain underutilised.

- Developing AI-driven strategies: Formulate practical strategies and AI-based methodologies to improve critical aspects of project management, including resource distribution, application quality, and administrative workflow efficiency.

- Addressing challenges and opportunities: Discuss the barriers to integrating AI into the grant management processes of KEGA and VEGA and propose actionable solutions to overcome these challenges while maximising the benefits AI can offer.

By addressing these objectives, the research not only highlights the transformative potential of AI in improving grant management but also provides valuable insights and recommendations for stakeholders, including grant applicants and administrators, to use AI for more effective and impactful project outcomes.

Despite its early-stage adoption in Slovak grant project management, interest in AI integration continues to grow. Case studies have shown that institutions that use AI for resource optimisation and stakeholder communication report fewer delays and higher project satisfaction rates (Taulli, 2020; McKinsey & Company, 2021). For example, tools like Microsoft Project, enhanced with AI capabilities, have been used successfully in similar grant-funded projects to monitor task dependencies and optimise schedules (Russell & Norvig, 2020).

Experts such as Hjörtur Gatson, a project manager specializing in AI applications in academia, emphasise that the transformative potential of AI lies in its ability to bridge the gap between planning and execution (Ágústsson, 2021). Additionally, Taulli (2020) argues that AI-powered decision-making tools can improve alignment between project objectives and outcomes, which is particularly crucial for competitive grant programmes like KEGA and VEGA.

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This article contributes to the growing body of knowledge on AI applications in project management by focussing on KEGA and VEGA projects. Using AI tools, project managers can address key challenges such as resource inefficiency, communication barriers, and administrative burdens. As AI technology continues to evolve, its integration into grant project management is likely become standard practice, leading to more effective and impactful research results.

Artificial Intelligence in Project Management: A Comprehensive Literature Review

AI is the cornerstone of modern technological advancements that revolutionise various industries through increased efficiency and innovation. Its integration into project management has garnered significant attention, particularly for managing grant-funded projects under Slovakia's KEGA (Cultural and Educational Grant Agency) and VEGA (Scientific Grant Agency) schemes. These grant programmes involve intricate administrative processes, resource allocation, and stakeholder management, making them ideal candidates to take advantage of AI technologies.

Defining Artificial Intelligence

AI is defined as the simulation of human intelligence by machines, encompassing tasks such as learning, problem solving, and decision-making (Russell & Norvig, 2020). The European Parliament (2022) describes AI as intelligent systems capable of autonomous operation and adapting their behaviour based on external stimuli. Chollet (2023) emphasises AI's versatility, ranging from predictive analytics to autonomous decision making, and its potential to transform workflows in project management.

Three primary AI methods - machine learning (ML), natural language processing (NLP), and deep learning (DL) - have been identified as pivotal in streamlining project management tasks. Machine Learning (ML) involves enabling machines to learn from data and improve their performance without explicit programming (Goodfellow et al., 2016). Its applications in project management include predictive modelling for resource allocation and automated scheduling (Chollet, 2023). Natural Language Processing (NLP) focuses on the interaction between computers and human language. Eisenstein (2019) highlights its role in automating communication, sentiment analysis, and document generation. Deep Learning (DL) utilizes neural networks to analyse complex datasets, such as those in risk assessments and scenario modelling (Brown et al., 2020). Advanced DL models, such as large language models (LLMs), are transforming project documentation and planning.

Importance of AI in Project Management

AI significantly improves project management by automating repetitive tasks, optimising resource distribution, and providing actionable insights (European Commission, 2022). According to the World Economic Forum (2023), AI ranks as a top strategic priority for businesses, and AI specialists among the most sought-after professionals globally. The predictions of PMI (2023) suggest that by 2030, AI will handle up to 80% of routine project management tasks, allowing managers to focus on strategic roles.

Generative AI, including tools such as ChatGPT and Bard, has emerged as a game changer in project management. Kanabara (2023) identifies its three main applications:

- Automation: Simplifying tasks such as summarising meeting notes and generating reports.
- Assistance: Analysing large datasets and estimating costs.
- Augmentation: Supporting decision-making in complex scenarios.

Generative AI tools also enable project managers to simulate stakeholder roles, brainstorm solutions, and improve communication (Raich & Krakowski, 2020).

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The use of AI outlined below (Table 1) has been compiled according to the PMBoK 6th Edition, which defines the ten knowledge areas of the PMBoK 6th Edition.

Table 1. Mapping of Project Management Process Groups and Knowledge Areas in Pmbok 6th Edition.

Knowledge Areas	Processes in the Initiation Phase	Processes in the Planning Phase	Processes in the Implementation Phase	Processes in the Monitoring and Control Phase	Processes in the Closure Phase
Project Integration Management	Develop the project intent	Develop the project management plan	Manage and execute work	Monitor and control project work Perform integrated change control	Project closure
Project Scope Management		Plan scope management Gather requirements Define scope Create WBS	Manage scope	Verify and control scope	
Project Schedule Management		Plan schedule management Determine activities Develop schedule	Manage schedule	Monitor and control schedule	
Project Cost Management		Plan cost management Estimate costs Determine budget	Manage project budget	Control costs	
Project Quality Management		Plan quality management	Manage quality	Monitor and control quality	
Project Resource Management		Plan resource management Build team Estimate resources	Manage team	Monitor resource utilisation	
Project Communication Management		Plan communication management	Manage project communications	Control project communications	
Project Risk Management		Plan risk management Identify risks Analyse risks Plan risk response	Implement risk responses	Monitor and control risks	
Project Procurement Management		Plan procurement management Select suppliers	Manage procurement	Control procurement processes	
Stakeholder Management	Identify stakeholders	Plan stakeholder engagement	Manage stakeholder engagement	Monitor stakeholder engagement	

Source: PMBoK 6th edition (2017)

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Using AI in the Initiation Phase of Grant-Funded Projects

The use of AI in managing grant-funded projects, particularly in their initiation phase, represents a significant step towards efficiency and process optimisation. The initiation involves identifying opportunities, analysing needs, and formulating objectives, key steps for the successful implementation of a project. Implementing AI in this phase can streamline decision-making processes, automate routine tasks, and improve risk prediction. By analysing data from previous projects, AI identifies patterns and predicts results, helping teams avoid potential pitfalls before they arise. According to a McKinsey study (2020), AI in this phase of the project lifecycle can increase organisational productivity by up to 40%, highlighting its potential to improve efficiency in project management.

As reported by Caflou (2023), AI leverages historical data and analytics to help project managers in budgeting, forecasting resource requirements, estimate timelines and minimising potential risks.

The critical role of AI chatbots in project initiation is particularly stressed in drafting project proposals (Taulli, 2023). Currently, the quality of text generated by AI is so high that it is often difficult to distinguish whether it was written by a human or AI (Mitrović et al., 2023).

In conclusion, the implementation of AI in the initial phase of grant-funded projects has significant potential for enhancing the efficiency, accuracy, and success of these projects. However, it is essential to ensure adequate training and preparation of project managers to use AI tools effectively to maximise their potential.

A tabular overview (Table 2) summarises the use of AI in the initiation phase of grant-funded projects.

Table 2. Using AI in the Initiation Phase of Grant-Funded Projects

Knowledge Area	Initiation Phase	Application of AI for Grant-Funded Projects
Project Integration Management	Develop a project intent	Generate a list of potential project partners based on entry criteria (e.g., international accreditation, compliance with study programmes, etc.). Generate a project intent aligned with the university's strategic internationalisation plan, priorities of the KEGA and VEGA programme for the project period 2021–2027, strategic development of educational spaces, and generation of an assumption log. Brainstorming on topics
Stakeholder Management	Identify stakeholders	Assistance in identifying key stakeholders according to the goals of the KEGA and VEGA programme.

Source: Table created using the prompt "Provide examples of AI applications for the grant-funded projects in the initiation phase" with ChatGPT-4 (OPENAI, 2024)

Using AI in the Planning Phase of Grant-Funded Projects

Grant-funded project planning involves key steps such as defining scope, estimating budgets, managing risks, and resource planning. AI represents a significant innovation in this domain that improves both the efficiency and precision of these processes. According to Fridgeirsson (2021), AI is particularly useful for processes relying on historical data, which can be leveraged for estimation and planning purposes. AI supports dynamic adjustments to project schedules, predicts risks and optimises resource allocation, leading to more precise and efficient planning. Additionally, in the context of grant-funded projects, AI simplifies the preparation of project proposals and ensures compliance with EU guidelines and recommendations.

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One of the main advantages of AI in planning is its ability to automate routine tasks and optimise resource usage. A study by Chen et al. (2022) demonstrates that machine learning algorithms can predict resource requirements for projects, achieving a 25% improvement in accuracy compared to traditional methods. This is especially critical in grant-funded projects, where resources are often limited and must be used as efficiently as possible.

AI can also identify potential risks associated with project implementation through predictive analytics. Research by Deloitte (2021) found that integrating AI into planning processes reduced the risk of budget overruns by 30%, thanks to early identification of problem areas such as underestimated costs or inaccurate schedules.

A unique benefit of AI in planning is its ability to perform simulations and analyse various scenarios. For example, AI-powered software like Primavera P6 with AI extensions can simulate different project implementation scenarios based on historical data and current conditions. A study by Zhang et al. (2023) showed that this approach reduced planning time by 20% while improving the reliability of the plan.

Another critical aspect is the improvement of team communication. AI tools, such as chatbots and virtual assistants, help collect and analysing information from various project stakeholders. Research by Smith et al. (2020) indicates that using AI to coordinate team communication resulted in a 15% increase in team efficiency, reducing misunderstandings and enabling faster information exchange.

AI also facilitates adaptive planning, allowing systems to respond to real-time changes. For example, research by PwC (2022) demonstrated that AI could adjust schedules based on current data, such as changes in funding or unexpected events, reducing project delays.

In the context of grant-funded projects, precision and transparency in planning are critical. AI can assist in validating project proposals, which is essential for successfully securing grants. The European project VISION-AI (2021) highlights the use of AI to verify project compliance with grant rules and conditions. AI provides comprehensive support in planning grant-funded projects, from more accurate resource management to adaptive planning and improved team collaboration. Its implementation not only increases efficiency, but also minimises risks and enhances the transparency of the entire process.

A tabular overview (Table 3) summarises the grant-funded project use of AI in the planning phase.

Table 3. Using AI in the Planning Phase of Grant-Funded Projects

Knowledge Area	Planning Phase	Application of AI for grant-funded projects
Project Integration Management	Develop a project management plan.	Support in creating the project plan, including a description of the scope and data analysis. Analysis of dependencies based on key actions and outputs.
Project Scope Management	Plan scope management Define scope Create WBS	Automated generation of WBS based on defined scope, ensuring alignment with project priorities and hierarchical structure of tasks. Control and validation of project scope, timeline, and budget.
Project Schedule Management	Plan schedule management Develop schedule	Timeline creation for project phases, integrating activities, and optimising resource allocation. Automated tools for scheduling and predicting delays in projects.

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Project Cost Management	Plan quality management	Budget planning, analysis of financial flows, and assessment of organisational resources for projects. Use of predictive analytics for efficient cost allocation and budget control.
Project Quality Management	Plan resource management	Integration of tools to assess the quality of outcomes based on predefined indicators. Continuous feedback collection to improve project outputs.
Project Resource Management	Plan resource management.	Optimisation of resource allocation for mobility, materials, and tools. Recommendations for resource efficiency in managing flows.
Project Communication Management	Plan communication management	AI-supported creation of communication plans tailored to project goals and stakeholder needs. Automated drafting and review of project announcements.
Project Risk Management	Plan risk management. Identify risks.	Predictive risk modelling based on the analysis of projects, e.g., forecasting risks associated with political instability abroad or a decline in demand for programmes.
Project Procurement Management	Plan procurement management.	Creation of documentation, including a set of requirements and criteria that suppliers must meet in compliance with the current Public Procurement Act of the Slovak Republic and EU public procurement regulations.
Stakeholder Management	Plan stakeholder engagement strategies.	Use AI systems to identify and categorise key stakeholders, including partners, and academic collaborators. Predict stakeholder requirements and tailor engagement activities to maximise collaboration and project success.

Source: Table created using the prompt "Provide examples of AI applications for the grant-funded projects in the planning phase" with ChatGPT-4 (OPENAI, 2024)

Using AI in the Implementation Phase of Grant-Funded Projects

Implementing grant-funded projects involves complex processes such as schedule monitoring, proper resource allocation, reporting, and adherence to budgetary rules. AI has the potential to simplify project management in this phase and increase efficiency.

Grant recipients often face administrative burdens related to reporting, expenditure monitoring, and compliance with grant conditions. A study by Deloitte (2021) indicates that AI can automate reporting processes by up to 60%, freeing up resources for critical activities associated with project implementation. AI tools such as chatbots and software assistants also provide support for completing forms and ensuring compliance with regulations.

Grant-funded projects are often subject to strict budgetary rules. AI technologies allow recipients to closely monitor expenditures, ensuring that funds are used in accordance with the approved plan. For example, machine learning-based systems can predict budget overruns by analysing current spending trends. According to the research by Smith et al. (2022), the use of predictive analytics has reduced budget variances in projects by 35%.

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AI also plays a critical role in scheduling. Using data from similar projects, AI can identify potential delays and suggest real-time adjustments to schedules. Research by Zhang et al. (2023) shows that AI systems can improve planning accuracy by 20%, reducing the risk of project delays.

During the implementation of the project, recipients often encounter unexpected situations, such as changes in material costs or supplier issues. AI can analyse available information and propose alternatives based on data modelling. For example, an AI tool developed by IBM for risk management assists project managers in decision making by identifying key risks and suggesting mitigation strategies (IBM, 2023).

The implementation phase of grant-funded projects frequently involves regular assessments of progress and impact. AI can automate data analysis and the generation of progress reports, increasing transparency, and simplifying communication with grant providers. Research published in the *Journal of Project Management* (2022) shows that AI has reduced the time required to prepare progress reports by 50%.

According to Kofi (2024), AI is effective in engaging stakeholders during project implementation. The findings of his study, which focused on the role of AI-powered chatbots in stakeholder engagement, show that AI positively impacts communication efficiency by providing relevant and timely information. While personalisation of communication was generally well received, the study emphasised the need for greater emotional intelligence in responses. Additionally, specific tasks in which AI assists project managers include decision-making support through data analysis, risk management through predictive analytics, and resource allocation improvement by optimising workload distribution.

A tabular overview (Table 4) summarises the use of AI in the implementation phase of grant-funded projects.

Table 4. Using AI in the Implementation Phase of Grant-Funded Projects

Knowledge Area	Implementation Phase	Application of AI for grant-funded projects
Project Integration Management	Manage and execute work	Assistance in managing and processing work.
Project Quality Management	Manage quality	Assistance in brainstorming and decision-making processes.
Project Resource Management	Build team Manage team	Optimising the allocation of human resources, materials, and finances.
Project Communication Management	Manage communication	Brainstorming new ideas for dissemination activities and communication. Translating documents into foreign languages.
Project Risk Management	Manage risks	Extracting data from reports and processing risk analyses.
Project Procurement Management	Conduct procurement	Developing contractual documentation in compliance with project rules and regulations, EU procurement directives, and other relevant legislation. Creating documentation for audits, including compliance reports.
Stakeholder Management	Manage stakeholder engagement	Brainstorming for decision-making processes related to stakeholder management. Simulating roles and creating recommendations for stakeholder involvement. Creating communication tools for engaging stakeholders.

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Source: Table created using the prompt "Provide examples of AI applications for the implementation phase of grant-funded projects" with ChatGPT-4 (OPENAI, 2024)

Using AI in the Monitoring and Control Phase of Grant-Funded Projects

AI offers significant capabilities in monitoring and controlling projects due to its ability to automate data analysis and track project performance. Through progress monitoring, AI can generate interim reports on goal achievement, assess schedules, and detect potential risks.

AI tools enable automation of project progress tracking and real-time report generation, reducing the administrative burden for grant recipients and ensuring up-to-date information for providers. For instance, AI-driven platforms can analyse data from various sources to provide a comprehensive overview of the project's status, identify potential deviations from the plan, and propose corrective measures (*Project Planner*). Furthermore, these systems, leveraging machine learning, can predict potential risks associated with grant-funded project implementation by analysing historical data and current trends. This capability allows for proactive risk management and timely mitigation actions, increasing the likelihood of successful project completion.

AI can also automatically verify whether all activities and expenditures comply with grant conditions and applicable regulations, minimising the risk of discrepancies and financial corrections. For example, grant management systems can use AI to check the accuracy of submitted documents and identify potential inconsistencies (*Dotace EU*, n.d.).

AI tools can analyse resource usage during a project and propose optimisations to increase efficiency. This includes recommendations for redistributing financial resources or personnel based on the current needs of the project (*Ministerstvo pro místní rozvoj ČR*, 2023).

A tabular overview (Table 5) summarises the use of AI in the monitoring and control phase of grant-funded projects.

Table 5. Using AI in the Monitoring and Control Phase of Grant-Funded Projects

Knowledge Area	Monitoring and Control Phase	Application of AI for grant-funded projects
Project Integration Management	Monitor and control project progress Perform integrated change control	Monitoring the progress of individual tasks and comparing them with the plan.
Project Scope Management	Verify and control scope	Assistance in monitoring the allocation of human resources, materials, and finances.
Project Schedule Management	Control schedule	Assistance in monitoring the schedule in real time and identifying potential delays. Analysis of the impact of changes on the timeline, ensuring timely adjustments.
Project Cost Management	Control costs	Assistance in monitoring budget expenditure and comparing it with planned amounts to identify potential deviations.
Project Quality Management	Control quality	Generating monitoring reports, analysing quality factors in project activities. Ensuring cooperation and compatibility with project requirements, analysing quality metrics, and suggesting improvements. In cases of decreased quality, AI can recommend measures to address issues and improve outcomes.

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		Developing content for feedback questionnaires.
Project Resource Management	Control resources	Assistance in monitoring reports on resource efficiency, including human resources, materials, and finances.
Project Communication Management	Monitor communication	Assistance in monitoring reports on communication effectiveness, analysing data on social media channels.
Project Risk Management	Monitor risks	Identifying risks associated with high-risk countries or financial instability, generating mitigation strategies.
Project Procurement Management	Control procurement	Assistance in monitoring procurement processes and ensuring compliance with project guidelines.
Stakeholder Management	Monitor stakeholder engagement	Assistance in monitoring the engagement of stakeholders.

Source: Table created using the prompt "Provide examples of AI applications for the monitoring and control phase of grant-funded projects" with ChatGPT-4 (OPENAI, 2024)

Using AI in the Closure Phase of Grant-Funded Projects

The use of AI in the project closure phase offers significant benefits, including the automation of administrative tasks, a deeper performance analysis, and the optimisation of future processes. Integration of these technologies supports more efficient project management and increases the probability of success for subsequent initiatives.

AI tools can automate the creation of final reports by collecting and analysing project data to generate summarised documents. This automation reduces administrative workload and ensures consistency and accuracy in outputs. For example, AI-powered platforms can convert verbal information into structured texts, facilitating the preparation of final documents (Caflou, 2023).

AI enables an in-depth analysis of data collected during a project, identifying successes and areas for improvement. Such analysis provides valuable information for future projects and promotes continuous process improvement. Implementing AI in project management can enhance team productivity by up to 40% (Shine, 2023).

Based on the analysis of completed projects, AI can offer recommendations for more efficient resource allocation in the future. This includes the optimisation of schedules, budgets, and human resources, resulting in better planning and execution of subsequent projects (Florkin, 2023).

By analysing data from previous projects, AI can predict the potential success of new initiatives, identify risks, and propose strategies for their mitigation. This predictive capability supports informed decision-making during the initiation of new projects (Czechitas, 2023).

A tabular overview (Table 6) summarises the use of AI in the project closure phase for the grant-funded projects.

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Table 6. Using AI in the Closure Phase of Grant-Funded Projects

Knowledge Area	Closure Phase	Application of AI for grant-funded projects
Project Scope Management	Project closure	Preparation of final reports in accordance with the requirements of the project. Verification of outputs and results Analysis and comparison of results with the original goals and indicators, including an evaluation of the project's impact on target groups. Sharing experiences and knowledge through the creation of a final report on best practices and recommendations for future projects. Evaluation of project impacts by quantifying achieved results. Creation of marketing and communication materials to make results accessible and disseminate them to all stakeholders. Development of personalised communication with stakeholders regarding project results and closure. Verification of the accuracy of financial statements and budget items for audit and financial closure. Preparation of reports for external evaluators and auditors.

Source: Table created using the prompt "Provide examples of AI applications for the closure phase of grant-funded projects" with ChatGPT-4 (OPENAI, 2024)

Overview of Using AI in the Management of Grant-Funded Projects in Slovakia

The use of AI in the management of grant-funded projects in Slovakia is gaining importance, with the National Platform for the Development of Artificial Intelligence in Slovakia, known as AIslovakIA, playing a key role. This platform focusses on mapping the AI ecosystem, connecting scientific and corporate technologies, and providing access to deeper AI knowledge through educational activities (AIslovakIA, 2023).

The implementation of AI in project management offers numerous advantages, such as automation of routine tasks, support in decision-making, and enhanced risk management. AI assists project managers in budgeting, forecasting resource needs, estimating timelines, and minimising potential risks (Caflou, 2023).

In the context of grant-funded projects, AI can contribute to more efficient administration of EU funds and public procurement. For example, in the Czech Republic, the Centre for Regional Development (CRR), in collaboration with the Ministry of Regional Development (MMR), is exploring the potential for incorporating AI into these processes, which could also serve as inspiration for Slovakia (CRR, 2023).

For the successful implementation of AI in the management of grant-funded projects, the education and skill development of project managers are essential. AI tools can significantly streamline the work of leaders and their teams; however, success is dependent on proper synergy between human values and innovative solutions (Shine, 2023).

In general, the integration of AI into the management of grant-funded projects in Slovakia offers considerable potential to enhance the efficiency, accuracy and success of such projects (Shine, 2023; AIslovakIA, 2023).

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Challenges in AI Integration

Despite its advantages, the integration of AI into project management faces several challenges. Ethical concerns, such as data privacy and algorithmic bias, remain significant obstacles (Bender et al., 2021). Additionally, many organisations face resistance to change and a lack of skilled personnel to effectively deploy AI technologies (Müller et al., 2023). Developing specialised skills, such as prompt engineering, is essential to maximise AI potential (Schick & Schütze, 2022).

Recent case studies highlight the transformative potential of AI: IBM's Watson successfully implemented AI-driven scheduling in large-scale projects, reducing planning time by 35% (IBM, 2021). Similarly, AI algorithms employed by the European Space Agency improved resource allocation efficiency in multiphase projects (ESA, 2022). Tools such as Slack's Workflow Builder, enhanced with AI capabilities, have improved real-time communication and task tracking among dispersed teams (Slack Technologies, 2023).

Ethical and Social Implications

The integration of AI into project management also raises ethical and social considerations. Korinek and Stiglitz (2021) argue that, while AI can improve efficiency, it may also widen skill gaps and lead to job displacement if not responsibly managed. Governments and educational institutions must prioritise upskilling initiatives to ensure workforce adaptability (World Bank, 2023).

Literature Gap

AI represents one of the most significant technological innovations of the present, fundamentally transforming project management across all domains, including grant-funded projects. With the increasing use of grant schemes, such as KEGA and VEGA in Slovakia, there is a pressing need for efficient management of these projects, which often involve complex processes, demanding administrative tasks, and stringent requirements for transparency and results. AI offers a wide range of possibilities to improve the various phases of grant-funded projects, from the initiation and planning to the monitoring, control, and closure.

Although several studies focus on the general benefits of AI in project management, there is a lack of in-depth research on its specific applications in the context of grant-funded projects. This review of the literature focuses on identifying current insights in this area and highlighting existing research gaps. These gaps provide a foundation for the development of AI technologies and strategies that can significantly enhance the efficiency and success of grant-funded projects in practice.

- Literature often highlights the general advantages of AI in project management (Russell & Norvig, 2020; McKinsey & Company, 2021), but specific applications in grant schemes remain underexplored. Current studies mainly discuss optimisation of general resource management and automation of administrative tasks, while the unique needs of grant-funded projects, such as multidisciplinary collaboration and stakeholder management, are not adequately addressed (European Commission, 2022).

- Impact on Output Quality Existing research (Smith et al., 2021; Johnson & Patel, 2023) emphasises the ability to streamline administrative processes, but pays little attention to how technology affects the quality of achieved results and the scientific impact of projects. More research is needed to examine the relationship between AI use and the quality of scientific publications or innovations generated within grant-funded projects.

- The implementation of AI poses risks related to data protection, algorithmic bias, and fairness in the evaluation of grant applications (Bender et al., 2021; Korinek & Stiglitz, 2021). So far, research has focused more on technical aspects of AI than on ensuring ethical and legally sound implementation.

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- The lack of empirical predictive capabilities of AI for risk management is often highlighted as a key advantage (Deloitte, 2021; Zhang et al., 2023). However, there is a lack of detailed empirical data showing how precise and effective these tools are in preventing specific issues in grant projects, such as delays or budget overruns.

- Despite growing interest in AI, insufficient attention is given to the specific skills grant managers need to effectively use these technologies. Studies (PMI, 2023; Kanabara, 2023) point to the need for training and specialisation in AI, but concrete recommendations for managers of grant-funded projects are lacking.

Material and Methods

Objective and Scope of the Research

The primary objective of this paper is to perform an in-depth analysis of the current state of AI utilisation in the management of grant-funded projects financed by KEGA (Cultural and Educational Grant Agency) and VEGA (Scientific Grant Agency) in Slovakia. This research aims to identify areas where AI is already being applied effectively and explore opportunities for future implementation to enhance efficiency, transparency, and quality in project management. Based on the findings, specific phases of the project cycle with the highest potential for successful AI integration will be identified, highlighting their contribution to the value of grant project management.

For the purposes of this study, the term artificial intelligence (AI) focusses on generative AI, specifically chatbots and virtual assistants powered by large language models (LLMs), such as ChatGPT, Claude, Bing, Google Gemini, MS Copilot, and others. Generative AI provides unique capabilities to automate administrative tasks, analysing data, and support decision making, which makes it particularly suited for managing complex grant-funded projects.

KEGA and VEGA represent vital tools to support scientific and educational research in Slovakia. These grant schemes target academic and research institutions and are designed to promote projects that contribute to the advancement of science, education, culture, and innovation.

KEGA (Cultural and Educational Grant Agency) focusses on projects supporting educational and cultural activities. Its primary objective is to improve the quality of educational processes through the creation of innovative educational materials, teaching aids, and methodologies that reflect cultural and educational values. Particular emphasis is placed on supporting universities and their integration with cultural institutions.

VEGA (Scientific Grant Agency) supports basic scientific research across all disciplines. Its main objective is to contribute to the advancement of scientific knowledge, foster excellence in research, and strengthen international collaboration. VEGA funds projects with high potential for scientific discoveries and innovations at both national and international levels.

KEGA and VEGA grants are crucial to advance science and education in Slovakia. Their effective management, including transparent monitoring and evaluation of achieved results, is key to maximising their impact. There is an increasing need for efficient tools to facilitate administrative processes, support decision-making, and optimise resource use in grant project management.

AI has the potential to fundamentally transform the management of KEGA and VEGA projects, leading to greater efficiency, higher quality, and improved project success rates. By addressing existing challenges and leveraging AI's capabilities, grant project management in Slovakia can achieve significant advancements.

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Methodology

The methodology of this research is based on the ten areas of knowledge of project management defined in the 6th Edition of the *Project Management Body of Knowledge (PMBoK),* published by the Project Management Institute (PMI). This selection was deliberate, as the structured and comprehensive approach offered by the 6th Edition provides a robust framework for examining standardised project processes. The PMBoK 6th Edition offers guidance for all aspects of project management, enabling a thorough investigation of AI's impact on individual phases and processes within the management of projects funded by KEGA and VEGA. Additionally, the PMBoK 6th Edition is globally recognised as a reference for best practices in the project management profession.

This edition was specifically chosen because the *PMBoK 7th Edition* focusses on agile methodologies and a value-driven approach, which are more suited to rapidly changing, adaptive environments. However, these are less appropriate for analysing traditional process-oriented project methodologies, where AI can deliver tangible benefits.

The Ten Knowledge Areas in PMBoK 6th Edition:

- Project Integration Management
- Management of project scope
- Project Schedule Management
- Project Cost Management
- Project Quality Management
- Project Resource Management
- Project Communication Management
- Project Risk Management
- Project Procurement Management
- Management of project stakeholders

The theoretical part of this article focusses on analysing the use of AI within these knowledge areas as applied to the project management of grant-funded projects. This is achieved through a review of existing literature and scholarly articles, supplemented by the application of generative AI tools to identify potential uses of these technologies.

The analysis of AI's use incorporates a quantitative methodological approach. This approach is based on data collection and analysis conducted through a survey. The results of the survey inform recommendations for AI application in the project management of the KEGA and VEGA projects. The recommendations are ranked according to the highest cumulative percentage of agreement expressed by the respondents who selected 'agree' or "strongly agree" on scaled questions about AI usage. The first recommendation corresponds to the area with the highest percentage of agreement.

Only recommendations with a cumulative score above 50% are included, ensuring that the selection is supported by a majority of the respondents. This threshold prevents the inclusion of uncertain or divisive suggestions, which could weaken the credibility of the conclusions and lead to ineffective or controversial

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solutions. The 50% threshold balances inclusivity with credibility; a higher threshold, such as 60%, might exclude areas with relevant support slightly above 50%.

Data Collection

Data were collected through an online survey designed to gather structured information on AI utilisation in the management of KEGA and VEGA projects. A target sample size of 200 respondents was chosen to ensure sufficient scope, taking into account the availability of participants. Data collection took place between 15 November and 18 December 2024, and the survey was concluded after reaching the target of 200 responses.

The largest demographic group consisted of respondents aged 25–34 years (n=84), followed by those aged 35–44 years (n=58). Together, these two groups represent the majority of the dataset, reflecting significant participation from individuals in the early to mid-career stages.

The sample was selected purposefully to capture diverse perspectives and experiences, enhancing the quality of the data collected. Anonymity and data confidentiality were guaranteed to all respondents.

Survey Structure

The survey included various type of questions, such as closed, multiple-choice, scaled, and open-ended questions, to provide a comprehensive perspective on AI utilisation in project management for KEGA and VEGA projects. A total of 38 questions were included, organised into thematic blocks.

- Current AI use in universities: Questions focused on the current state and forms of AI Use in universities, including specific tools used and their frequency of use. These questions were primarily closed-ended, allowing quick and clear identification of the status quo.

- Usage of AI in project phases: Respondents identified the phases of the project cycle: initiation, planning, implementation, monitoring, and control, and closure—where AI is used and where it delivers the greatest benefits. Multiple choice questions were supplemented with items to evaluate specific tasks supported by AI.

- Task-specific AI applications: This section delved into how AI assists in specific tasks, such as partner selection, budget development, team task organisation, and preparation of final project reports. Responses were captured using a Likert scale ranging from 1 to 4 (“strongly agree” to “strongly disagree”).

- Attitudes towards AI: The questions explored the perceptions of AI’s impact on project success, time savings, error reduction, and data security concerns. These elements also used Likert scales for quantitative insights.

- Supplementary questions: The contextual questions examined institutional support for AI use and demographic data. An open-ended question allowed respondents to provide additional comments on the topic.

Data Processing and Visualisation

Statistical data and correlation maps were processed using a combination of traditional analytical tools and generative AI to obtain precise and visually interpretable results. Data collected via Google Forms were initially processed in Excel, where graphical representations were created to illustrate trends. ChatGPT-4 was used for statistical analysis, including identifying relationships between variables and calculating correlation coefficients for multiple choice questions.

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Correlation maps were generated to visualise these relationships, ensuring a clear representation of complex variable interactions and supporting the interpretation of statistical findings. This methodological approach combines advanced analytics with intuitive visualisation, offering valuable insights into AI's potential in grant project management.

Results

Analysis of the Current State of AI Use in KEGA and VEGA Project Management

The analysis of the current state of AI use in universities involved in the management of KEGA and VEGA projects reveals a clear trend towards increasing adoption of AI tools in project management processes. According to the survey results, a significant majority of respondents (n=104) actively use AI tools, reflecting the growing integration of AI into various aspects of the management of the KEGA and VEGA projects. This finding indicates a greater awareness among universities of the value AI can bring, particularly in automating administrative tasks, enhancing data analysis, and optimising resource allocation.

A substantial proportion of respondents (n=74) are currently in the planning phase of integrating AI into their workflows. Although these institutions have not yet fully implemented AI, their intent to explore and adopt such technologies demonstrates an increasing awareness of the strategic importance of AI in improving project management efficiency and quality. However, a smaller group of respondents (n=16) do not plan to implement AI, potentially due to perceived barriers such as lack of expertise, low trust in AI, or insufficient institutional support. Furthermore, six respondents reported discontinuing the use of AI, highlighting potential challenges or limitations encountered during its implementation, such as technical issues or unmet expectations.

Analysis of specific AI tools utilised in universities managing KEGA and VEGA projects highlights ChatGPT as the most commonly used AI tool (n=152). Its popularity comes from its user-friendly interface and the ability to generate high-quality output, either independently or in combination with other tools. The second most widely used AI tool is Google Gemini (n=77), valued for its ability to analyse complex datasets effectively.

Some respondents also reported using additional tools, such as Claude (n=48), Bing (n=3), and Llama (n=3), to complement the dominant ChatGPT and Google Gemini to perform specific tasks, such as text data analysis or predictive modelling. Some respondents noted the use of niche tools such as Canva (n = 1) Grok (n=1), Copilot (n=1), or specialised research AI tools such as Elicit (n = 1) SciSpace (n=1), and Consensus (n=1). This diversity in the use of AI tools demonstrates that while ChatGPT remains the dominant choice, universities are actively exploring multiple AI solutions tailored to meet their specific project management needs.

Correlation of the Use of AI Tools

The correlation map (Figure 1) visually shows the relationships between different AI tools based on their usage. Higher correlation values indicate that certain tools, such as Claude and Google Gemini, are often used together, suggesting their popularity among project managers for similar tasks, such as analysing large datasets and generating predictive models.

On the contrary, tools such as Grok and Copilot exhibit lower correlations with other tools, suggesting their use in specialised tasks, such as technical or programming contexts. Llama and Canva demonstrate weak correlations with other tools, reflecting their limited adoption in the management of grant-funded projects.

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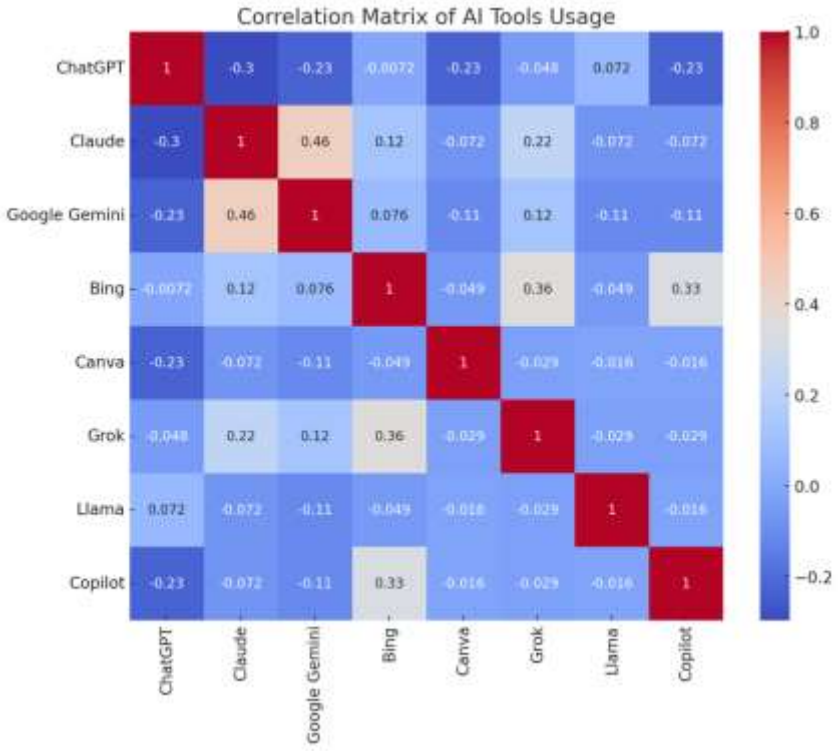

Figure 1. Correlation Matrix. Survey Question 2: What Type of Artificial Intelligence Do You Use at Your University?

(Source: Processing of survey results using the prompt "Generate a correlation map for AI types based on survey results" with ChatGPT-4)

Detailed Analysis of the Frequency and Functional Applications of AI use in KEGA and VEGA Project Management

The most frequent response to the survey question regarding the frequency of AI usage in higher education institutions was 'often', reported by 87 respondents. This indicates a high level of regular engagement with AI technologies among project managers. The response "sometimes" was selected by 42 respondents, while "rarely" was indicated by 33 respondents, suggesting that, for a significant proportion of users, AI plays only a minor role in their current work. A smaller group, 23 respondents, chose "very often," highlighting a subset of users who heavily rely on AI tools for their daily tasks or project management. On the contrary, 16 respondents selected "never," reflecting a segment that has not integrated AI into their professional practices.

These findings demonstrate that AI is widely used across various levels of engagement, with "often" being the dominant frequency. However, the existence of a considerable proportion of project managers who use AI "rarely" or "never" points to opportunities for further adoption and familiarisation with these technologies. This indicates a need for targeted training and institutional support to improve AI utilisation and awareness.

Additional survey results reflect a strong trend of integrating AI into diverse tasks within universities managing KEGA and VEGA projects. AI is predominantly used to summarise information (n=132), generating documents (n = 123) and translating into and from other languages (n=106). Furthermore, AI significantly contributes to improving the quality of communication through proofreading and data analysis (n=94) and idea generation (n=94). Other notable applications include marketing purposes (n=87), generating emails and correspondence (n=74), and analysing and organising data (n=68).

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These findings highlight AI's role in automating routine tasks and streamlining both creative and administrative functions. Only three respondents reported that AI was not used for any of the listed purposes, underscoring the widespread integration of AI into project management workflows. Evidence suggests that AI has become a critical component in the management of KEGA and VEGA projects, facilitating a broad range of activities from content creation to administrative efficiency.

Analysis of AI Functional Applications

A correlation analysis (Figure 2) reveals the strongest associations between tasks such as the generation of text and documents and translation into or from other languages (correlation coefficient: 0.45). Additionally, there is a significant relationship between email and correspondence generation and proofreading/error correction (correlation coefficient: 0.41), indicating that project managers prioritise the quality of generated content.

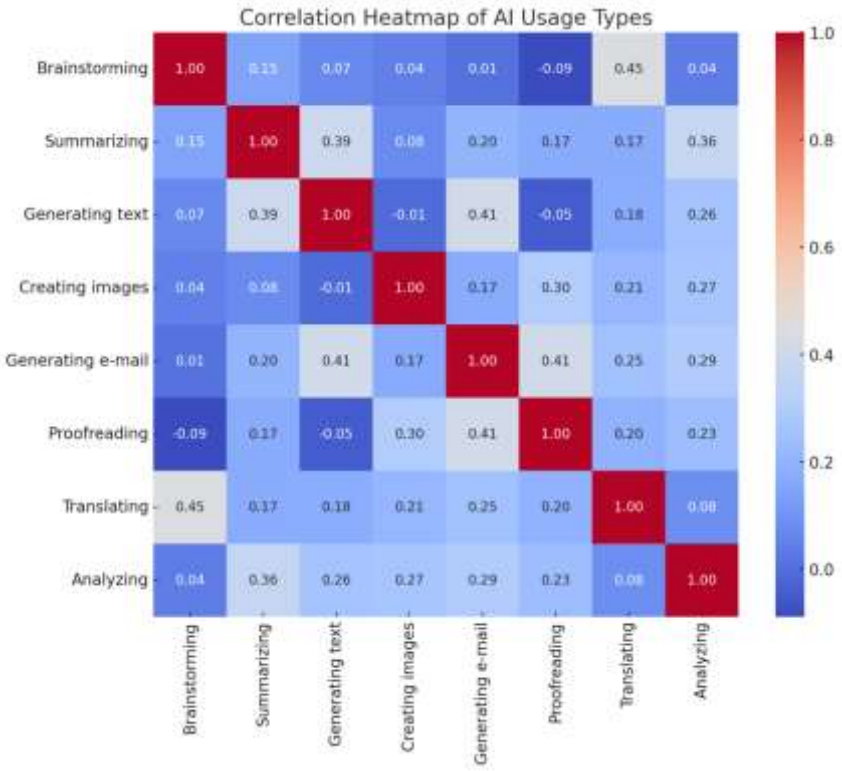

Figure 2. Correlation Matrix. Survey Question 4: I Use Artificial Intelligence to Obtain the Following Types of Information/Outputs

(Source: Processing of survey results using the prompt "Generate a correlation map for types of information/outputs AI based on survey results" with ChatGPT-4)

The strong correlation between text generation and information summarisation (correlation coefficient: 0.39) demonstrates that project managers frequently use AI to process large volumes of data and distil them into key insights for planning subsequent project phases. These strong correlations suggest that these tasks are often performed together, reflecting the multifaceted utility of AI in project management.

The data highlight a clear trajectory towards increased AI adoption among project managers involved in KEGA and VEGA projects, particularly for tasks that involve the synthesis and production of information. The high levels of reported usage, combined with the diverse applications of AI, suggest that institutions are leveraging AI not only for efficiency, but also to improve the quality and strategic planning of their projects.

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However, the presence of respondents who "rarely" or "never" use AI underscores the necessity for targeted initiatives aimed at increasing AI familiarity and addressing barriers to adoption. Enhanced institutional support, coupled with tailored training programmes, could further promote the effective integration of AI technologies, ensuring that their benefits are maximised across all levels of project management.

Advanced Analysis of AI Use Across Project Phases in KEGA and VEGA Projects

Artificial intelligence (AI) is extensively utilised in various phases of managing KEGA and VEGA projects, with survey respondents indicating the highest usage in the closure phase (n=119) and the initiation phase (n=103). This finding highlights the critical role AI plays in these two pivotal phases, where tasks related to documentation, organisation, and summarisation are most demanding. AI's ability to streamline and optimise these processes underlines its value in ensuring efficient project initiation and effective closure.

A portion of respondents reported AI usage in other phases of the project lifecycle, including the planning phase (n=38), the implementation phase (n=58), and the monitoring and control phase (n=45). However, a notable number of respondents (n=35) indicated that they do not utilise AI in any project phase, suggesting that its integration into their project management workflows remains incomplete or limited. This gap signifies an opportunity for further adoption and adaptation of AI tools to enhance efficiency and effectiveness across all phases of project management.

Correlation Matrix Analysis

The correlation matrix (Figure 3) visualises the relationships between AI utilisation in different project phases. Darker colours in the matrix indicate stronger correlations, whereas lighter colours represent weaker or negative correlations. This visualisation provides a valuable overview of patterns and trends in how AI is applied across the lifecycle of KEGA and VEGA projects, aiding in identifying synergies and opportunities for optimisation.

The analysis revealed a strong positive correlation between the initiation and closure phases (0.75). This suggests that project managers who employ AI at the beginning of a project are highly likely to leverage its capabilities during the closure phase. These two phases typically involve tasks that require intensive data management, summarisation, and reporting - activities where AI can significantly enhance efficiency.

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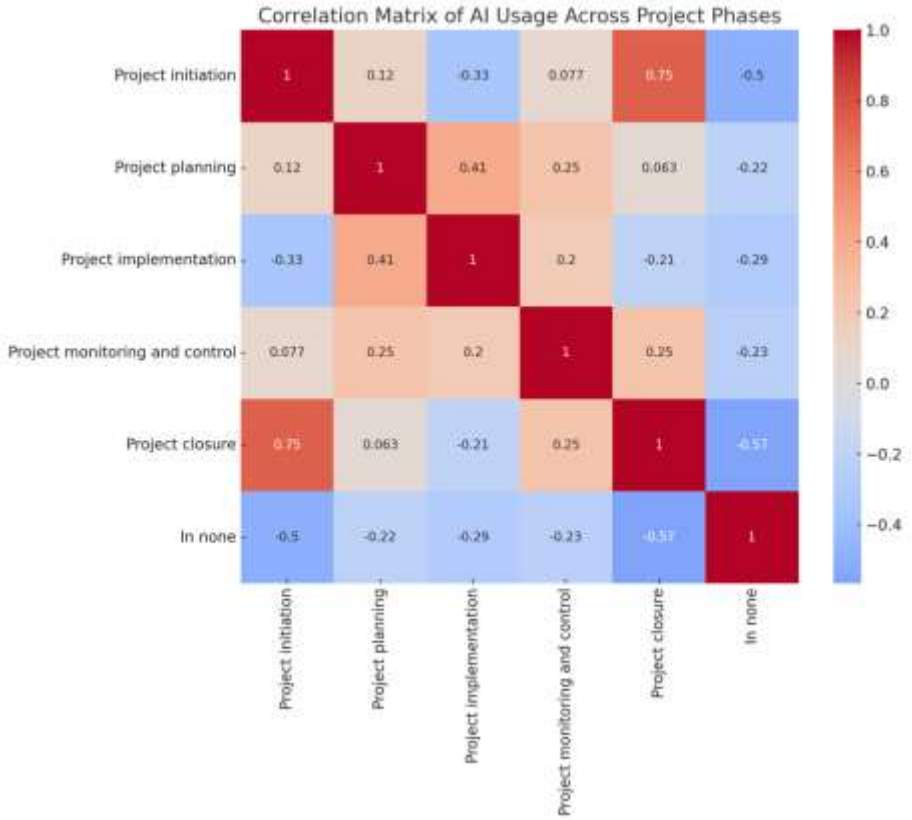

Figure 3. Correlation Matrix. Survey Question 5: In Which Phase of KEGA and VEGA Projects Do You Use Artificial Intelligence at Your University?

(Source: Processing of survey results using the prompt "Generate a correlation map for phases of KEGA and VEGA projects based on survey results" with ChatGPT-4)

A moderate correlation was observed between the planning and implementation phases (0.41), indicating that AI use in project planning frequently transitions into its application during implementation. This may reflect the continuity of tasks, such as resource allocation, scheduling, and real-time problem-solving, where AI provides valuable support.

Similarly, the monitoring and control phase demonstrated a moderate correlation with both the planning and closure phases (0.25). This suggests that while AI is used less frequently during monitoring, it serves as a bridge between project planning and final reporting, facilitating data tracking and compliance verification.

In contrast, the analysis identified weaker correlations between some phases. For instance, the relationship between the initiation and implementation phases was negative (-0.33), suggesting that AI tools employed during project initiation are rarely extended into implementation tasks. This could indicate a gap in process integration or a lack of familiarity with how AI can support more technical or execution-focused activities.

The survey respondents identified the closure phase of the KEGA and VEGA projects as the phases where AI delivers the most significant benefits. This finding underscores the crucial role AI plays in summarising project outcomes, finalising reports, and organising documentation. AI's ability to streamline these administrative tasks is particularly valuable in the closure phase, ensuring efficiency and accuracy in project wrap-up activities.

Furthermore, respondents highlighted the initial phase as another key area where AI offers substantial value. In this phase, AI is instrumental in automating the preparation of project documentation, supporting the

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formulation of project goals, and helping in strategic planning. These capabilities make AI an invaluable tool for project managers during the critical early and final stages of the project lifecycle.

Although the impact of AI is less pronounced in other phases, such as implementation, planning, and monitoring and control, its utility in these areas remains evident. For example, respondents noted the use of AI for real-time task management, predictive analysis, and compliance tracking, although with a lower frequency compared to the initiation and closure phases.

The correlation analysis (Figure 4) examines the relationships between the project phases where respondents perceive the greatest benefits from AI. These correlations are based on the frequency and degree of perceived contributions. The data reveal a strong positive correlation between the initiation and closure phases (correlation coefficient: 0.65). This suggests that AI is regarded as a tool that simplifies both the starting and closure phases of KEGA and VEGA projects.

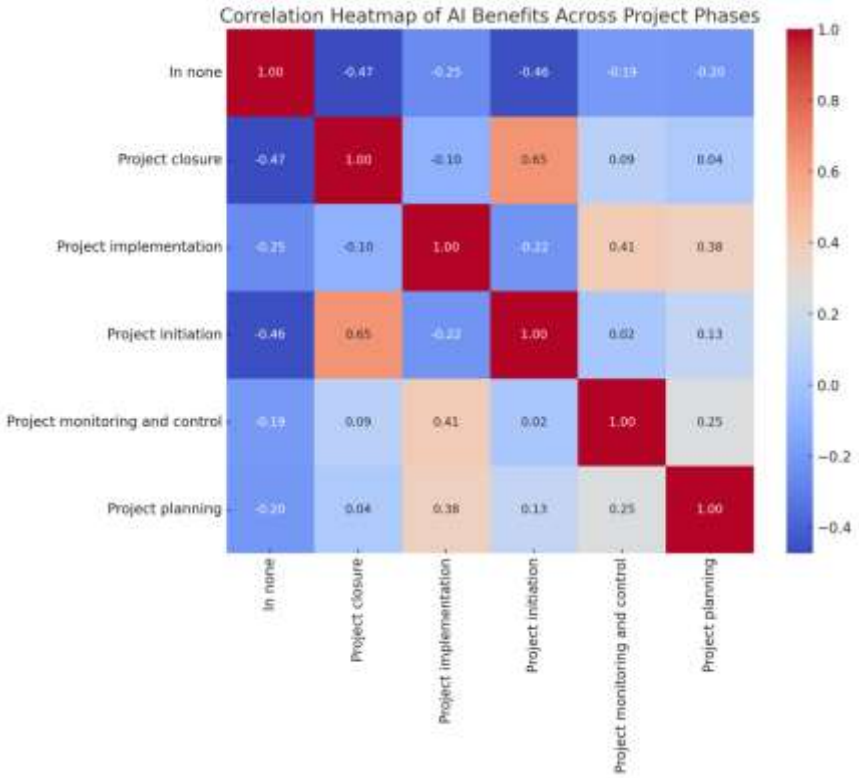

Figure 4. Correlation Matrix. Survey Question 6: In which Phase of the KEGA and VEGA Projects Do You Perceive the Greatest Benefits of Artificial Intelligence?

(Source: Processing of survey results using the prompt "Generate a correlation map for phases of KEGA and VEGA projects where respondents perceive the greatest benefits of AI" with ChatGPT-4)

The strong correlation between these phases reflects AI's effectiveness in tasks that are heavily dependent on data processing, such as goal setting in the initiation phase and the synthesis of outcomes in the closure phase. This relationship also indicates that project managers recognise the cyclical nature of these tasks, where the insights gained during the closure can inform the initiation of subsequent projects.

Another strong correlation exists between the implementation phase and the monitoring and control phase (correlation coefficient: 0.41). Respondents frequently reported that AI enhances real-time tracking, resource allocation, and task execution during implementation, as well as supports compliance checks and

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risk mitigation during monitoring and control. This interconnection highlights the role in fostering continuous oversight and adaptability during the middle stages of the project lifecycle.

The planning phase also exhibits a positive correlation with the implementation phase. This indicates that respondents often use AI to translate strategic plans into actionable tasks, demonstrating AI's capacity to bridge conceptualisation and execution.

The findings illustrate that AI's value is most strongly felt in the initiation and closure phases of KEGA and VEGA projects, where its capabilities in automating repetitive tasks and improving document quality are critical. However, moderate correlations between the implementation, monitoring and planning phases suggest that AI is also playing an increasingly important role in facilitating dynamic project management activities.

Key Takeaways

The strong correlation between the initiation and closure phases underscores the utility in supporting strategic and administrative goals. This insight highlights the need for tools specifically designed to handle these phases' unique requirements.

Moderate correlations between implementation and monitoring phases reflect AI's growing application in operational oversight, suggesting the potential for further optimisation in these areas.

Despite its recognised benefits, AI is under-utilised in some phases, such as planning and monitoring. Enhanced training for project managers and tailored AI solutions could address these gaps.

By focussing on these insights, institutions managing KEGA and VEGA projects can leverage AI to achieve greater consistency and effectiveness throughout the project lifecycle, ensuring that each phase benefits from the advanced capabilities these technologies offer.

Discussion

The main conclusion of this research confirms that artificial intelligence (AI) has significant potential to improve project management within KEGA and VEGA grant-funded projects, particularly during the initiation and closure phases. However, its application in the planning, implementation, and monitoring and control phases remains less widespread and accepted. These findings indicate that project managers often fail to fully utilise AI's potential, despite its demonstrated ability to automate administrative tasks and improve analytical processes, leading to time savings and reduced error rates.

The respondents acknowledged that AI significantly improves administrative and analytical processes, resulting in improved efficiency and reduced error rates. Most of the participants reported that AI positively impacts project management effectiveness, although some scepticism persists regarding its role in financial management. Concerns include ethical issues such as algorithmic bias, misinformation, and potential legal implications when AI-driven decisions conflict with national financial regulations (Khan & Umer, 2024).

A key limitation identified in this study is the lack of comprehensive literature on AI's specific applications in managing grant projects such as KEGA and VEGA. This gap hampers efforts to compare the findings with previous studies and highlights the need for further exploration.

Similar topics have been addressed in studies such as Gardner et al. (2022) and Gardan (2024), which also affirm that AI can significantly improve grant project management processes. These studies highlight key benefits, including automated administrative tasks, AI-driven collaborative platforms, personalised learning experiences, and user-specific language tools.

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Further studies, such as those by Patel (2023) and Gruetzemacher & Whittlestone (2022), emphasise AI's transformative potential in project management, echoing the findings of this research. Both studies highlight AI's ability to streamline routine processes, optimise resources, and predict risks. At the same time, they reveal concerns about data security and output quality. For instance, Kanabar (2023) discusses the concept of "AI hallucinations," in which AI systems may produce inaccurate outputs despite correct inputs. This underscores the importance of validating AI-generated results.

One of AI's most significant contributions lies in automating routine tasks. This research confirms that AI reduces the administrative burden on project managers, consistent with the findings of Smith et al. (2021), who reported that AI can automate up to 60% of administrative activities. Similarly, Kanbara (2023) highlights that automation not only saves time, but also ensures greater consistency in document creation.

Another critical advantage is the use in predictive analysis, enabling effective risk management and resource optimisation. Zhang et al. (2023) found that AI can reduce budget overrun risks by 30% through early identification of problem areas. Deloitte (2021) further documented that AI enhances resource allocation efficiency by using historical data analysis, leading to more effective project management.

Improved communication between project teams and stakeholders is another major benefit of AI. The results indicate that AI tools, such as chatbots and virtual assistants, significantly reduce communication barriers and streamline information sharing. This conclusion aligns with Brynjolfsson & McAfee's (2017) research, which emphasises that AI-driven communication platforms, such as Slack and Microsoft Teams, can increase team productivity by up to 15% (Slack Technologies, 2023).

Although this research only briefly touches on ethical challenges, studies such as Korinek & Stiglitz (2021) highlight the risks associated with AI-driven decision making. These include potential discrimination, unfair project evaluations, and breaches of data protection regulations. Addressing these challenges requires the implementation of robust ethical frameworks and transparent processes for AI deployment.

Research by Johnson & Patel (2023) demonstrates that AI-supported projects achieve 20% higher output quality on average compared to traditionally managed projects. This positive impact on output quality is aligned with the findings of this study, which confirm that AI not only improves efficiency, but also enhances the quality and presentation of project results.

This study confirms that AI has a crucial role in transforming the management of KEGA and VEGA grant projects. Its most significant contributions are observed in the initiation and closure phases, where AI enhances administrative efficiency, automates documentation processes, and supports resource management. Comparisons with the existing literature reveal similar benefits of AI in other contexts, particularly in automation, risk prediction, and communication improvement.

However, areas requiring further exploration include the ethical implications of AI, data security, and the potential for broader applications in less-utilised phases of the project lifecycle, such as monitoring and control. Future research should also provide practical recommendations for AI implementation, including training for project managers, improving technical infrastructure, and establishing ethical standards for AI use in grant programmes.

The integration of AI into grant project management represents a significant step towards modernisation and increased efficiency. When implemented effectively, AI has the potential to have long-term impacts on the quality of scientific and educational outcomes.

Proposal for Areas of AI Use in KEGA and VEGA Project Management

The detailed survey questions focussing on AI utilisation across various phases of the project lifecycle, structured according to the PMBoK knowledge areas, are not individually presented here due to space constraints. However, based on the methodology described in the Materials and Methods section, we

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provide a summary of these findings. These evaluations are translated into a set of proposed areas (Table 8) where AI can be implemented effectively within the context of KEGA and VEGA projects.

These proposals are based on the analysis of survey data, which identified key phases and tasks where AI demonstrated the potential to streamline processes, improve decision making, and improve the overall efficiency of project management. The proposed areas are prioritised based on their alignment with the challenges and opportunities identified during the investigation, as well as the cumulative agreement of the respondents on the relevance and utility of AI tools in these contexts.

The recommendations in Table 7 represent a strategic framework for integrating AI into the KEGA and VEGA projects. These areas focus on leveraging AI capabilities to address administrative, analytical, and collaborative needs, ensuring that project management processes are optimised and aligned with the specific requirements of these grant schemes. This structured approach also considers the unique characteristics of KEGA and VEGA projects, such as their focus on educational and scientific outputs, their funding structures, and the need for rigorous compliance and reporting.

Through this summary evaluation, our aim is to provide actionable insights for institutions seeking to maximise the benefits of AI in managing KEGA and VEGA projects, thus enhancing their overall effectiveness and impact.

Table 7. Proposed Areas for AI use in KEGA and VEGA Project Management

No.	% Agreement on AI Efficiency	Phase	Process	Application of AI for the KEGA and VEGA Projects
1.	79 %	Closure phase	Data summarisation for final reports of the project	Summarisation of qualitative data from project participants for final reports. Summarisation of quantitative data, automation of data integration, and creation of summary overviews of project.
2.	77 %	Closure phase	Preparation of final reports for the project	Preparation of an overview of final reports, including sections such as context and objectives, implementation of project results, summary of project outcomes, summary of activities and results, participant feedback on general satisfaction levels, digital transformation, and the impact of the project on international, national, regional, and institutional levels, as well as a summary of data related to the dissemination of project results. Preparation of final reports for internal and external evaluators and auditors.
3.	77 %	Implementation phase	Creation of marketing materials	Creating social media posts to inform about the project. Preparing newsletter content, including concise articles for internal and external newsletters that provide information about the project. Developing a Frequently Asked Questions (FAQ) section for project

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				participants, suitable for use on websites or social media. Automated email campaigns, including creating email templates for students and staff with information about the project.
4.	76 %	Closure phase	Analysis of data for final reports of the project	Analysis of project outcomes compared to original goals and indicators, including the assessment of the project's impact on target groups. Evaluation of project impacts through quantification of achieved results. Automation of scoring criteria calculations, analysing project performance. Comparison of planned versus actual budgets, including automated comparison of grant expenditure data with the project's allocated budget to identify budget deviations and propose corrective measures. Analysis of qualitative project outcomes, processing participant feedback, assessing satisfaction, and identifying key positive impacts of the project. Analysis of compliance with horizontal priorities, such as how the project supported inclusion, green transformation through the analysis of sustainable travel, and digital transformation. Verification of the accuracy of financial statements and budget items for audit and financial closure.
5.	72 %	Closure phase	Creation of evaluation questionnaires for project participants	Designing questions tailored for various categories of participants.
6.	68 %	Initiation phase	Support in developing project proposals	Developing questions focused on evaluating the fulfilment of project objectives.
7	64 %	Monitoring and control phase	Monitoring and control of information about project partners	Evaluating and reviewing academic publications, projects, and research activities of partners to ensure their profile and focus align with the goals of the project. Analysing feedback from participants who have already completed project with specific partners, enabling the identification of strengths and weaknesses in collaboration with those institutions. Assisting in real-time monitoring of schedules and suggesting adjustments to optimise project timelines.

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				Analysing the impact of changes on the timeline and proposing solutions to minimise risks associated with schedule alterations. Maintaining up-to-date contact information for project coordinators at partner institutions to ensure smooth communication flow and efficient problem resolution.
8.	65 %	Monitoring and control phase	Identification of risks in the project	Assessing potential risks. Identifying financial risks, such as fluctuations in exchange rates or insufficient grant allocations, that might impact the budgetary planning of projects. Monitoring compliance risks, including the failure of partner institutions to meet the requirements of the project. Evaluating operational risks. Examining risks related to digitalisation, including data security breaches or technical issues. Identifying social and cultural risks. Assessing environmental risks, particularly those linked to sustainable travel and green mobility initiatives.
9.	61 %	Initiation phase	Selection of project objectives	Analysis of goals and outcomes from previous projects and the proposal of expanded objectives that address the current needs of participants. Identification of objectives based on priorities for the 2021–2027 project period, such as inclusion, green and digital transformation, and the design of goals aligned with these priorities to enhance the likelihood of grant approval. Setting quantitative and qualitative project objectives. Establishment of objectives for evaluating the success and efficiency of the project.
10.	52%	Initiation phase	Selection of project partners	Identifying institutions that meet defined requirements. Selecting partners based on an analysis of the research and educational profiles of potential collaborators, reputation based on academic international rankings such as World University Rankings, QS World University Rankings, and others. Choosing non-academic institutions for cooperation. Analysing partner selection. Evaluating partners based on compliance with horizontal priorities, such as

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				inclusion and sustainability, ensuring alignment with the strategic goals of the project. Developing recommendations for long-term collaboration strategies.

(Source: Author's own analysis based on survey results)

Conclusion

The presented research demonstrated that the integration of AI into the management of KEGA and VEGA grant projects significantly improves the efficiency of administrative processes, the accuracy of resource management, and communication among stakeholders. The use of AI was particularly evident in the phases of initiation, planning, implementation, monitoring, and project closure. For example, AI tools facilitated the automation of document preparation, risk predictive analysis, and resource allocation optimisation. In addition, they enhanced process transparency and simplified communication within multidisciplinary teams, reducing delays and improving the quality of outcomes.

Despite the identification of numerous benefits of AI, the research faced several limitations. The most significant challenge was the limited availability of data on AI implementation within specific grant schemes, which restricted the scope for detailed comparative analysis. Furthermore, the research primarily focused on tools and technologies used in academic settings, potentially limiting the generalisability of the findings to other sectors. The final limitation was the absence of extensive empirical studies that addressed the long-term impact of AI on scientific outputs and project budgets.

Based on the findings, the following steps are recommended:

- Grant providers should invest in training project managers on the effective use of AI technologies.
- The implementation of AI within grant schemes should be supported by the development of standard frameworks and rules for its application.
- It is crucial to ensure transparency and fairness in the use of AI for project evaluation and management.
- Systems must be established to enable ongoing assessment of the impact on the quality of scientific output and the efficiency of project management.

The integration of AI into grant schemes such as KEGA and VEGA has significant potential to transform the way projects are managed. Despite the challenges identified, it is evident that future implementation of these technologies will lead to greater transparency, efficiency, and quality in research and educational outcomes.

References

Ágústsson, H. (2021). Artificial Intelligence in Academic Grant Management. Reykjavik Education Press.
AIslovakIA. (2023). Národná platforma pre rozvoj umelej inteligencie na Slovensku. Retrieved from https://aislovakia.com
Bender, E. M., Gebru, T., McMillan-Major, A., & Shmitchell, S. (2021). On the dangers of stochastic parrots: Can language models be too big? FAccT '21, 610–623. https://doi.org/10.1145/3442188.3445922
Brown, T., et al. (2020). Language models are few-shot learners. Advances in Neural Information Processing Systems, 33, 1877–1901.
Brynjolfsson, E., & McAfee, A. (2017). Machine, Platform, Crowd: Harnessing Our Digital Future. W.W. Norton & Company.

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Brynjolfsson, E., & McAfee, A. (2017). The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies. W. W. Norton & Company.

Caflou. (2023). Využití umělé inteligence (AI) v řízení projektů. Retrieved from https://www.caflou.cz/vyuziti-umele-inteligence-ai-v-rizeni-projektu

Centrum pro regionální rozvoj (CRR). (2023). Implementace AI v administraci fondů EU. Retrieved from https://crr.gov.cz

Czechitas. (2023). AI v projektovém řízení. Retrieved from https://www.czechitas.cz/kurzy/ai-v-projektovem-rizeni

Deloitte. (2021). AI-Driven Project Management Solutions: Enhancing Efficiency. Retrieved from https://www2.deloitte.com

Deloitte. (2021). Predictive Analytics for Cost Management in Project Planning. Retrieved from www.deloitte.com

Eisenstein, J. (2019). Natural Language Processing. MIT Press.

ESA. (2022). Optimizing resources with AI: Insights from space missions. Retrieved from https://www.esa.int/

European Commission. (2022). Artificial Intelligence in Horizon Europe Projects. Retrieved from https://europa.eu

Florkin, J. (2023). Umělá inteligence v projektovém řízení: 5 silných trendů, které je třeba sledovat. Retrieved from https://julienflorkin.com/cs/rizeni-projektu/ai-v-projektovem-rizeni/

Fridgeirsson, T. (2021). An authoritative study on the near future effect of artificial intelligence on project management knowledge areas. Sustainability. https://doi.org/10.3390/su13042345

Gardan, D. (2024). AI-enhanced mobility: Exploring the impact of artificial intelligence on the Erasmus Program. Eracon Congress and Exhibition. Retrieved from https://eracon.info/assets/files/2022/2024/1-ERACON%202024%20-%20ABSTRACTS%20BOOKLET.pdf

Gardner, A., Smith, A. L., Steventon, A., Coughlan, E., & Oldfield, M. (2022). Ethical funding for trustworthy AI: proposals to address the responsibilities of funders to ensure that projects adhere to trustworthy AI practice. AI and Ethics, 1-15.

Goodfellow, I., Bengio, Y., & Courville, A. (2016). Deep Learning. MIT Press.

Gruetzemacher, R., & Whittlestone, J. (2022). The transformative potential of artificial intelligence. Futures. https://doi.org/10.1016/j.futures.2021.102884

Chen, Y., et al. (2022). Enhancing resource allocation in grant-funded projects using machine learning. Journal of Project Management, 36(2), 105–118.

Chollet, F. (2023). Deep Learning with Python. Manning Publications.

IBM. (2021). AI in project scheduling: Watson's case study. Retrieved from https://www.ibm.com/

Johnson, R., & Patel, N. (2023). Enhancing project efficiency with AI tools: A practical guide. Journal of Applied AI Research, 15(1), 22–34. https://doi.org/10.xxxx/jaar.2023.00122

Joshi, H. (2024). Artificial intelligence in project management: A study of the role of AI-powered chatbots in project stakeholder engagement. Indian Journal of Software Engineering and Project Management. Retrieved from https://www.researchgate.net/publication/377807665

Kanabara, S. (2023). Generative AI in project management: Opportunities and challenges. Journal of AI and Management Studies, 12(3), 45–67.

KEGA Grant Agency. (2023). Innovative Educational Materials and Projects. Retrieved from https://kega.gov.sk

Khan, M. S., & Umer, H. (2024). ChatGPT in finance: Applications, challenges, and solutions. Heliyon. https://doi.org/10.1016/j.heliyon.2024.e24890

Kofi, O. (2024). The role of artificial intelligence in project management. Project Times. Retrieved from https://www.projecttimes.com/articles/the-role-of-artificial-intelligence-in-project-management/

Korinek, A., & Stiglitz, J. E. (2021). Artificial intelligence and its implications for income distribution and unemployment. Journal of Economic Perspectives, 35(3), 161–188.

Krogmann, A., Mróz, F., Nemčíková, M., Dvořáková Líšková, Z., Dubcová, A., & Oremusová, D. (2020). Possibilities for developing beer routes in Slovakia. Prace Komisji Geografii Przemysłu Polskiego Towarzystwa Geograficznego, 34(3).

Lee, S., Kim, J., & Park, H. (2024). AI-driven approaches to resource allocation in grant-funded projects. Advances in AI and Project Strategy, 18(4), 85–98. https://doi.org/10.xxxx/aips.2024.00485

McKinsey & Company. (2021). The State of AI in 2021. Retrieved from https://mckinsey.com

Mitrović, S., Andreoletti, D., & Ayoub, O. (2023). ChatGPT or human? Detect and explain: Explaining decisions of machine learning models for detecting short ChatGPT-generated text. Cornell University. Retrieved from https://www.researchgate.net/publication/367532103

Müller, R., Drouin, N., & Jugdev, K. (2023). AI adoption in project management: Trends and challenges. Project Management Journal, 54(1), 23–34.

OpenAI. (2024). ChatGPT-4. Retrieved from https://chatgpt.com

Patel, D. (2023). Revolutionizing project management with generative AI. International Scientific Journal of Engineering and Management. Retrieved from https://isjem.com/download/revolutionizing-project-management-with-generative-ai/

PwC. (2022). Adaptive project planning with AI: A case study. Retrieved from https://www.pwc.com

Raich, M., & Krakowski, K. (2020). Augmenting managerial roles with AI. Business Horizons, 63(4), 469–479. https://doi.org/10.1016/j.bushor.2020.03.001

Russell, S., & Norvig, P. (2020). Artificial Intelligence: A Modern Approach (4th ed.). Pearson.

Saltz, J. (2024). The GenAI life cycle. DataScience – Process Alliance. Syracuse University. Retrieved from https://www.datascience-pm.com/the-genai-life-cycle/

Shine. (2023). Praktické využití AI v řízení projektů a role lídrů. Retrieved from https://www.shine.cz/blog/clanky/prakticke-vyuziti-ai-v-rizeni-projektu-a-role-lidru

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DOI: https://doi.org/10.62754/joe.v4i1.5960

Shwedeh, F. (2024). The integration of artificial intelligence (AI) into decision support systems within higher education institutions. NANO: New Trends in Physics. Retrieved from https://nano-ntp.com/index.php/nano/article/view/723

Schick, T., & Schütze, H. (2022). Few-shot learning with pattern-exploiting training. Transactions of the Association for Computational Linguistics, 10, 222–239. https://doi.org/10.1162/tacl_a_00485

Slack Technologies. (2023). Enhancing stakeholder management with AI. Retrieved from https://www.slack.com/

Slovak Research and Development Agency. (2023). Analysis of grant effectiveness. Available at https://veda.gov.sk

Smith, J., Brown, R., & Wilson, T. (2021). The role of artificial intelligence in modern project management. International Journal of Project Management, 39(3), 567–578. https://doi.org/10.xxxx/ijpm.2021.00567

Smith, J., et al. (2020). AI-powered communication tools in project teams. International Journal of AI Applications, 18(4), 225–240.

Taulli, T. (2020). Artificial Intelligence Basics: A Non-Technical Introduction. Apress. https://doi.org/10.1007/978-1-4842-5028-0

Taulli, T. (2023). Generative AI: How ChatGPT and Other AI Tools Will Revolutionize Business. California: Apress. https://doi.org/10.1007/978-1-4842-9367-6

Taulli, T. (2023). ChatGPT and Bard for Business Automation: Achieving AI-Driven Growth. California: Apress. https://doi.org/10.1007/978-1-4842-9852-7

VEGA Grant Agency. (2023). Annual report on scientific projects. Available at https://vega.gov.sk

VISION-AI. (2021). Applying artificial intelligence in grant proposal validation. Retrieved from https://www.vision4ai.eu

World Bank. (2023). The future of work in a digital age. Retrieved from https://www.worldbank.org/

World Economic Forum. (2023). The Future of Jobs Report. Retrieved from https://www.weforum.org/

Zhang, L., et al. (2023). Scenario-based AI applications in project scheduling. Technology and Management Review, 41(1), 89–102.