

Advanced AI Project Management Tools for Decision Support and Augmentation^{1, 2}

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Abstract

The integration of Artificial Intelligence (AI) Project Management has become a game-changer. In 2025, AI today takes us into the realm where advanced AI Project Management tools, combined with human capabilities, elevate our Project Management practices through enhanced Decision Support and Augmentation of AI. These AI PM tools enable extraordinary performance using data analysis, predictive modeling, and workflow optimization, transforming the way we plan, execute, and deliver projects.

To overcome current Project Management challenges, a strategic and systematic approach to utilizing the best AI Project Management tools to support Decision Support and Augmentation is imperative. The solution focuses on identifying typical failure points and establishing an effective execution framework. Multiple Solutions focus on the following areas:

- Predictive Analytics
- Proactive Risk Management
- AI-Driven Project Automation

So, how can organizations improve their projects' success rate? How can we use AI to influence the key factors which influence the success of our projects?

This paper explores key AI Tools that influence project success by using Decision Support and Augmentation along with Human interaction. Based upon the author's experience in leading projects across multiple industries, this paper will discuss key AI Project Management tools that address common issues when managing Projects.

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Introduction

According to Pierre Le Manh, President and CEO of PMI, Project Management Institute, Artificial Intelligence creates an amazing opportunity for project managers to lead both the transformation of the project profession and industries by using Artificial Intelligence. “GenAI offers real promise for helping to drive more successful projects. The time is now for organizations to adopt this disruptive, and potentially revolutionary, technology. And the time is now for project managers to upskill and to lead the AI transformations within their organizations and their profession,” stated Pierre Le Manh [12].

While the adoption rate of AI by industry is growing by up to 20% annually [3], and companies using or exploring the use of AI has grown to 77% [13], firms with full-scale Gen AI rollout is only approximately 5.4%. “Despite widespread reports of organizations heavily investing in AI, the 2023 PMI Annual Global Survey on Project Management found that only 21% respondents are using AI always or often when managing projects. Compared to the 82% of senior leaders who say AI will have at least some impact on projects, there’s a disconnect between current and aspirational AI use. Project professionals need to embrace and experiment with AI, and PMI Infinity provides a trusted and easily accessible AI-powered resource they can use on the job,” [12].

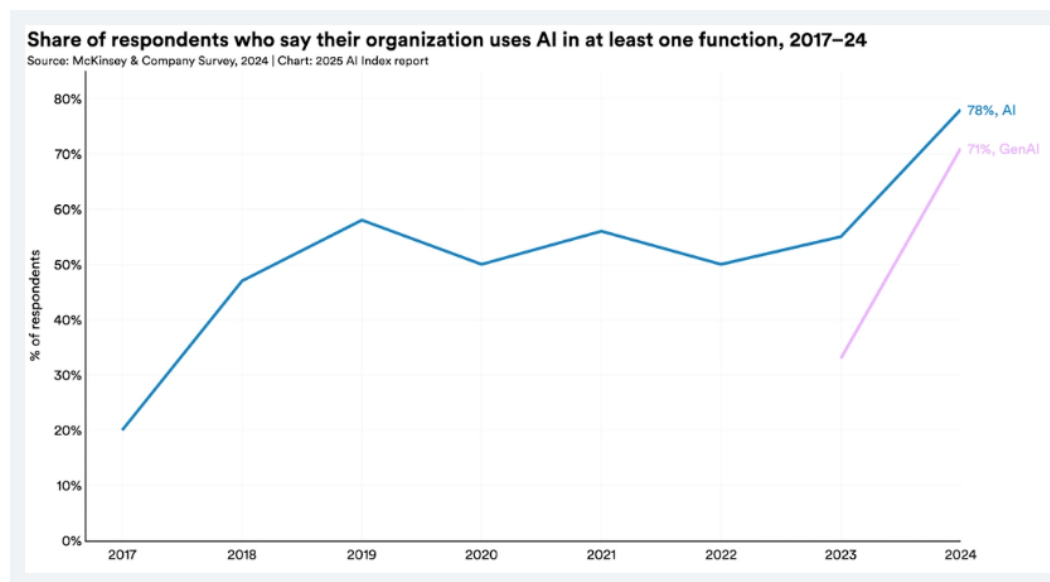


Figure 1: Organizational Use of AI in at Least One Function 2017 - 2024.

Source: The 2025 AI index report. Stanford HAI. [14]

“This isn’t like AI agents that search the internet to answer questions,” said Pierre Le Manh, PMP, President & Chief Executive Officer at PMI. “Project managers can rely on PMI Infinity. It uses trusted and vetted project management content shaped by our global community of professionals. It’s the latest step in our mission to help project professionals embrace AI, following the strong launch of our free ‘Generative AI Overview for Project Managers’ e-learning course. We are developing a whole set of learning tools and support platforms to help project professionals leverage AI responsibly” [12].

Main PM Challenges

In 2025, AI-powered tools are already here, assisting with automate administrative tasks like scheduling and reporting, assessing risks, identifying resource optimization challenges and assisting with strategic planning. Predictive analytics help forecast bottlenecks, while AI-driven assistants enhance communication and issue resolution, freeing project managers to focus on strategy and planning [5].

AI Tools Summary

From the many AI tools that can assist with project management, the following tools are highlighted within this report: PMI Infinity, Perplexity, Claude, Gamma, Asana, and Monday.com. These AI tools were chosen due to their availability to the broader audience, relatively low cost, and their ability to immediately assist with Decision Support and Augmentation abilities for immediate impact on projects.

PMI Infinity

PMI Infinity can assist with automated documentation and knowledge management, as well as providing insight into helping train Project Managers on a new methodology for managing AI projects called CMPAI. An underestimated AI Tool with great potential, PMI Infinity provides guidance, insights, and automation for managing projects. PMI Infinity focuses on four key areas to assist Project Managers to elevate their project management practices. These areas include: Chatbot for PMI-specific research, Generative AI Prompt Library, Project Management Documents Generation, and Guided Experiences. According to Pierre Le Manh, PMP, President & Chief Executive Officer at PMI, “This isn’t like AI agents that search the internet to answer questions. Project managers can rely on PMI Infinity. It uses trusted and vetted project

management content shaped by our global community of professionals. It's the latest step in our mission to help project professionals embrace AI. We are developing a whole set of learning tools and support platforms to help project professionals leverage AI responsibly" [12].

The only Chatbot with access to PMI-specific research content, PMI Infinity can access over 14,000 documents from sources such as PMI Global Congress, Project Management Journal, and PMI Seminars and Symposiums. Top topics include areas such as Benefits Realization, Change Management, Portfolio Management, Resource Management, and Risk Management. This is an invaluable resource for all levels of project managers.

PMI Infinity also contains a Generative AI Prompt Library containing an organized list of prompts that have been curated by the PMI community. These prompts can be used to empower project managers to make better, more informed decisions, anticipate risks, and level up their project management skills to deliver their projects more effectively. Prompts are organized by a series of 15 topics, from Agile and AI to Portfolio Management and Program Management to Risk Management and Strategy. Also, there are lists of Featured Prompts such as Change Request Form, PMO Restructuring Plan, and Requirements Traceability Matrix. This prompt library is continually growing, allowing PMI members the opportunity to contribute to this growing body of work.

Within PMI Infinity currently, the capability to generate various Project Management documents, such as a Project Charter and a Risk Management Plan. PMI Infinity provides a form that once filled out will produce the desired document. Currently, at this time, there are only 2 Project Management documents supported. This functionality would be useful for project managers that currently do not belong to an organization that has a Project Management Office (PMO) or does not have access to a standard list of Project Management documents. Currently, PMI Infinity is limited to only these 2 project management documents.

A personal AI Coach, PMI Infinity Guiding Experiences provides a series of learning experiences for Project Managers to guide them towards project success. One of these Guided Experiences is the ability to learn the CPMAI Methodology that is used to manage AI projects. CPMAI Methodology is a structured, vendor-neutral, data-centric framework for managing artificial intelligence, machine learning, and advanced data projects. By blending both Agile and CRISP-DM (Cross-industry standard process for data mining) methodologies, CPMAI emphasizes iteration, business alignment, risk management, and ethical governance throughout the project

life cycle. This CPMAI guided experience is broken down into two learning experiences: first to learn the CPMAI Methodology and the second to guide PMP-certified project managers to integrate CPMAI methodology within the PMBOK framework for managing AI projects. This combines the PMBOK's knowledge areas with the AI project best practices in areas such as model accuracy, data-centric strategies, and continuous monitoring to effectively manage AI projects.

Perplexity

One tool that can be utilized to examine common project failure points is Perplexity. By connecting Perplexity to Companies' data sources, past project data can be analyzed to determine the top common project failure points and solutions to these project failure points. Perplexity, an AI search engine that strongly focuses on delivering accurate, real-time, up-to-date information, delivers concise, cited responses and summaries to user queries. Perplexity is designed for use cases where individuals need current, accurate information with citations and is well-suited for research on current research topics.

Perplexity acts as an AI research engine by providing information with citations where the information is sourced from. It uses a variety of sources from the web, academic sources such as PubMed, Semantic Scholar, deeper research as well as the ability to access Companies' data sources. Unlike a traditional search engine that relies upon pre-indexed web pages, Perplexity performs live web searches to find more up-to-date info, including current events, breaking news, and recent research. Along with the information provided, Perplexity provides citations back to the original sources, allowing this tool to be used for research purposes where credible citations are needed. In addition, Perplexity allows its information to be organized into Collections called Spaces, making it a great tool for students and researchers. By combining the ability to research externally for common failure points and to search internal company data for existence of these failure points, Project Managers can make significant progress applying lessons learned for future projects.

Claude

Addressing the challenge of project communication to keep all stakeholders informed and engaged is frequently a project failure point. Claude, a Conversational AI Chatbot designed for safe, helpful, and high-quality dialogue, content generation, and complex reasoning can assist with this difficult task. It differs from other chatbots in that it has been highly trained in natural language processing, making it more suitable for marketing copy, technical documentation, and creative writing. Its ability to vary the tone and style in natural language, makes it more ideal

than other Chatbots for communicating with a variety of users. In addition, it contains fantastic tools for data analysis and business intelligence, being able to extract actionable insights from large datasets to identify trends and forecast outcomes, allowing Claude to specialize in recommending strategic actions. Furthermore, Claude can now determine if the query requires current data and can transition to a web search mode, retrieving current news and market trends. Plus, Claude has been trained on a unique “Constitutional AI” approach that incorporates ethical principles directly into Claude’s model training and decision-making. This gives Claude a unique advantage in use cases like compliance and legal areas. By using a specialized chatbot with superb natural, language communication skills such as Claude, communication between diverse stakeholders can be more easily facilitated with greater clarity.

Gamma

Another tool that addresses the challenge of project communication, particularly for creating business presentations, websites, or social media content is Gamma. Gamma is particularly suited to quickly create business presentations by simply uploading content in the form of MS Word, MS PowerPoint documents, or text documents. Then, Gamma allows the user to select from a series of templates and then generates a slide deck, website, or other social media compatible digital assets using AI-generated content, including text as well as images. In addition, Gamma also comes with a series of built-in templates such as a Startup Pitch Deck, Go to Market Strategy, and Project Kickoff to help the user get started quickly on creating presentations. All these features make Gamma ideal for facilitating stakeholder communications.

Asana

Asana is a fantastic tool for improving management of projects. By using AI-powered features such as Smart Summaries, Asana generates high level summaries of projects, tasks, and portfolios. It also highlights key points and decisions, providing high-level work statuses. Using data from tasks, milestones, and issues, Asana generates smart status report updates. It also facilitates translating objectives into measurable goals by assisting with better strategic planning. Plus, Asana assists with reporting by providing smart dashboards displaying key metrics such as overdue tasks, resource allocation, and team velocity, helping to more easily identify key points of project failure. These AI-powered features can assist with issues to be addressed earlier in the project life cycle, facilitating better management of projects.

Monday.com

Monday.com is a PM tool with integrated AI-Powered automation. Based upon Customer input and goals, it can assist with automatically generating project plans and tasks. Not only can Monday.com generate tasks, but it can also assist with sending tickets to the correct person or department. By allowing real-time project monitoring, Monday.com identifies bottlenecks and risks, along with other potential issues to assist with keeping the project on track. As Monday.com empowers teams and organizations by creating workflows and automating routine processes, the manual administrative burden is lessened for Project Managers, allowing them to focus on more strategic work.

Conclusion

According to the Artificial Intelligence Index Report 2025 by Stanford University, as AI tools have now become cost-effective and easily available, AI has become the main driver of business value. In 2024, AI adoption has greatly increased, with countless individuals now incorporating AI into their daily routines [14].

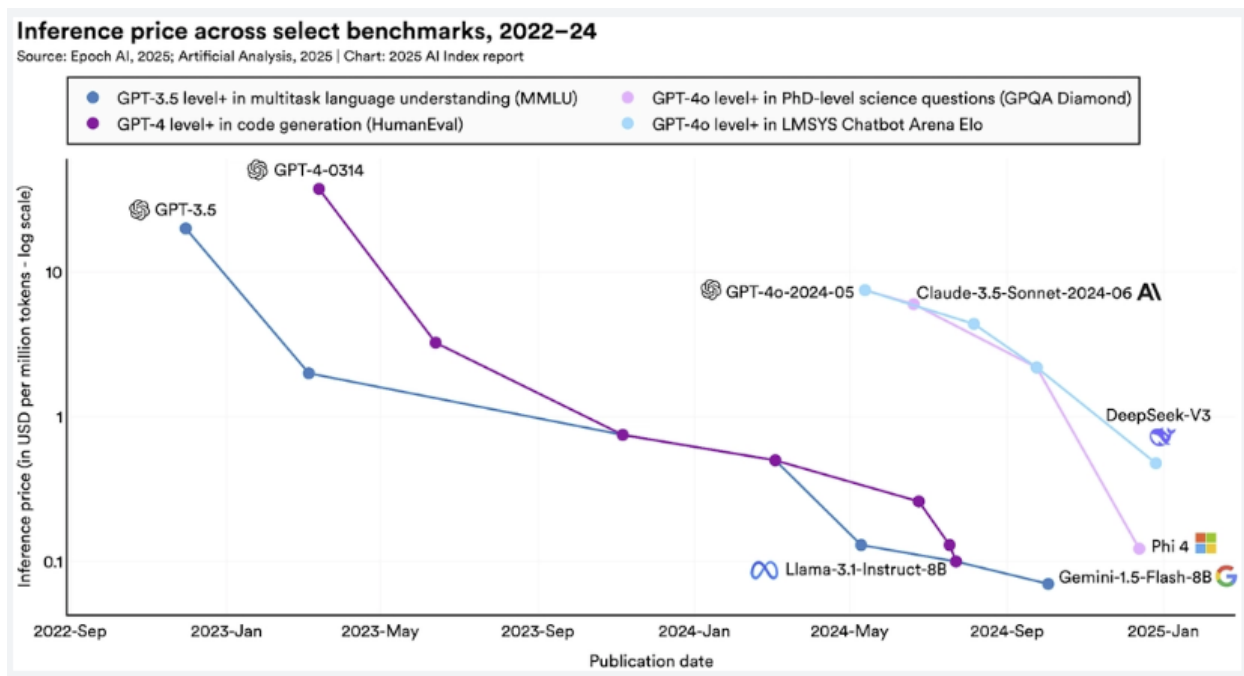


Figure 3: AI Models Are Now Less Expensive

Source: The 2025 AI index report. Stanford HAI. [14]

Key AI impacts on projects are the ability to more effectively communicate real-time project insights by facilitating real-time reporting through analyzing data and facilitating easily understood dashboards and reporting. This dramatically improves project management decision-making and risk management. As more routine tasks become automated, efficiency increases, allowing project managers to focus on more strategic, impactful work. As communication flows more smoothly through the project teams using these AI tools, team collaboration increases and bottlenecks decrease, especially among non-collocated teams. Furthermore, through AI-assisted resource allocation on critical tasks, project managers can better manage critical resources, improving the project's ability to meet important deadlines and meet budget constraints.

Recommendations for next steps for AI adoption include the following. Determine what your top priorities are. Improving project communication is a great place to begin. Once the project challenges are more easily visible, teams can more easily problem solve together, and the number of issues will decrease over time. Next, determine what the project's main impediments are that are impeding project progress, as well as the tools and processes that can remove these impediments. Additionally, begin AI training so that stakeholders get comfortable using an AI solution, including training on ethical guidelines for using AI. Furthermore, once these use cases are determined, implement an AI solution via a pilot project to provide proof of concept. Start small, applying change management techniques to gain support from challenging stakeholders and get buy-in for using AI to drive improvements. In addition, start with existing tools and platforms that are already familiar to stakeholders, before implementing conversion from existing project management tools to new, innovative, AI tools. Importantly, focus on examining and cleaning project data for quality, completeness, and relevance challenges to prepare for model training as preparation for AI tool implementation as AI tool implementation requires suitable project data to be effective. To successfully adopt AI in project management, organizations need to prioritize identifying challenges, implementing pilot projects, providing comprehensive training, and ensuring data quality before scaling to more innovative AI solutions.

References

1. Asana. (n.d.). *Asana AI features and admin controls*. Asana help center. https://help.asana.com/s/article/asana-ai-features-and-admin-controls?language=en_US
2. Brown, L. (2025, February 18). *The role of Artificial Intelligence in project management*. Invensis Learning Blog. <https://www.invensislearning.com/blog/impact-of-artificial-intelligence-on-project-management/>
3. Coherent Solutions, Inc. (2025, May 7). *2025 AI adoption across industries: Trends you don't want to miss*. 2025 AI Adoption Across Industries: Trends You Don't Want to Miss. <https://www.coherentsolutions.com/insights/ai-adoption-trends-you-should-not-miss-2025>
4. Gamma AI. (2025, March 8). What's new? Discover what Gamma Ai brings to the table. <https://growthtribe.io/blog/gamma-ai/>
5. Joni, Roni & Graepel, Thore. (2024). *Predictive Analytics and AI: Driving the Next Wave of Risk Management in Financial Services*. 10.13140/RG.2.2.16499.75041.
6. Kremmer, L. J. (2025, May 3). *Project & Program Management Trends in 2025: The Rise of AI, Agile Evolution, and human-centered leadership*. LinkedIn. <https://www.linkedin.com/pulse/project-program-management-trends-2025-rise-ai-agile-l%25C3%25A1szl%25C3%25B3-4nr8f/?trackingId=C0nNtTTPSladO%2FctBi4EA%3D%3D>
7. Meet Claude \ Anthropic. (n.d.). <https://www.anthropic.com/claude>
8. Mesaglio, M., & LeHong, H. (n.d.). *Gartner IT Symposium/Xpo 2024*. In *Pacing Yourself in the AI Races: 2024 IT Symposium/Xpo Keynote Insights*. Gartner.
9. Monday.com. (n.d.). *Get started with AI – Support*. <https://support.monday.com/hc/en-us/articles/11512670770834-Get-started-with-AI>
10. Nieto-Rodriguez, A., & Vargas, R. V. (2023, February 2). *How ai will transform project management*. Harvard Business Review. <https://hbr.org/2023/02/how-ai-will-transform-project-management>
11. PMI. (n.d.). *The AI-powered Coach for Project Professionals*. AI Personal Assistant for Project Professionals | PMI Infinity. <https://www.pmi.org/infinity>
12. PMI introduces PMI Infinity™ :The All-New AI Powered Resource for Project Professionals. (n.d.). <https://www.pmi.org/about/press-media/2024/pmi-introduces-pmi-infinity-the-all-new-ai-powered-resource-for-project-professionals>
13. Prestianni, T. (2025, January 14). *131 AI statistics and trends for (2024)*. National University. <https://www.nu.edu/blog/ai-statistics-trends/>
14. *The 2025 AI index report*. Stanford HAI. (2025, April 7). <https://hai.stanford.edu/ai-index/2025-ai-index-report>
15. *What is Perplexity AI? Understanding one of Google's Biggest Search Engine Competitors*. (n.d.). <https://www.jasper.ai/blog/what-is-perplexity-ai>

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