

Young Researchers Explore Project Management in the Age of AI: Why Progress Is Impossible Without People¹

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INTRODUCTION

At a time when artificial intelligence analyzes projects, algorithms determine priorities, and digital tools shape daily work, three award-winning research papers from this year's "German Student Award in Project Management" arrive at a strikingly clear and unanimous conclusion: none of it works without people. Whether it's the maturity of project management structures, the quality of strategic decisions, or the competencies of

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digital teams, one pattern is unmistakable – technology only drives real progress when culture, trust, and sound judgment are part of the equation.

The three papers honored with the “German Student Award in Project Management,” (“Deutscher Studienpreis Projektmanagement”) presented by the GPM – German Association for Project Management, look beneath the surface of today’s project environments. They show how cultural factors determine success or failure, why AI in portfolio management only works in tandem with human expertise, and why digital transformation makes the social skills of project managers more important than ever. Together, they offer insight into the future of a profession that is becoming more technical – and simultaneously requires a stronger human focus.

1. STRATEGIC SUCCESS THROUGH CULTURE: HOW AN AWARD-WINNING BACHELOR’S THESIS ANCHORS HUMAN AND ORGANIZATIONAL FACTORS IN PROJECT MANAGEMENT

Amid rising volatility, uncertainty, and complexity in modern business, project management has evolved from a simple toolset into a strategic core capability that drives transformation, innovation, and digitalization. Yet many projects continue to fall short of their goals. Often, the issue is not a lack of methodology but insufficient cultural grounding and inconsistent processes. Existing maturity models for assessing project management practices frequently operate on an overly abstract level and fail to capture organizational complexity. The need for a more practical instrument that realistically reflects cultural factors is more pressing than ever.

Award in the “Bachelor’s Thesis” Category

For his contribution to this critical topic, Leonard Latief – who completed his cooperative degree program at the Baden-Württemberg Cooperative State University in Heilbronn – was honored for his bachelor’s thesis titled “Project Management in Complex Organizations – Adapting a Maturity Model to Analyze Project Management Maturity Using the Example of the Markant Group.” In his work, Latief developed the Adapted Project Management Maturity Model (APM3), which renders an existing framework more applicable to real-world practice.

One of the thesis’s core findings is that project management involves far more than processes, methods, and techniques – a simple “toolbox” is not enough. Success is largely determined by the people who shape and drive projects.

Emphasis on Cultural Factors such as Leadership, Collaboration, and Willingness to Change

The APM3 reflects this reality by explicitly incorporating the human element as one of its core thematic dimensions. Alongside traditional categories, the model integrates a new

dimension dedicated to organizational culture, systematically accounting for leadership, collaboration, and readiness for change – acknowledging that standards are ineffective without a project-supportive culture.

Moreover, the APM3 departs from the rigid, linear stage logic of traditional models and instead introduces a network-based structure. This enables simultaneous visualization of differing maturity levels across various areas of project management, producing a more realistic picture of organizational practice. By operationalizing the evaluation dimensions, the model also allows concrete recommendations for action and visible development paths.

2. AI AS A CO-PILOT IN PROJECT PORTFOLIO MANAGEMENT: HOW HUMANS AND MACHINES MAKE BETTER DECISIONS TOGETHER

As decision-making environments grow more complex, effective project selection and prioritization (PPM) becomes a decisive success factor. The rise of generative artificial intelligence – currently the subject of widespread attention – offers new possibilities for data-driven decision support in this demanding field. A recent master's thesis examined how this technology can support managers in practice and which key conditions are necessary for its responsible and effective use.

Award in the “Master’s Thesis” Category

Sebastian Colditz, originally from Kassel and a graduate in industrial engineering from Darmstadt Technical University, received the award for his master's thesis “Optimizing Project Prioritization in Project Portfolio Management Using Generative Artificial Intelligence.” His research closes an important gap by empirically analyzing the acceptance and functional support of large language models (LLMs) such as ChatGPT in the context of PPM.

Generative AI Is Not a Replacement but a Complement to Human Expertise

The study's core findings highlight both the tremendous potential and the necessary limitations of AI use. While participants were impressed by the quality and usefulness of generative AI output, the experiment showed a clear pattern: groups that relied exclusively on the AI's recommendations achieved the weakest results.

In practice, this means that effective collaboration between humans and AI – capitalizing on the strengths of both – will be essential. Generative AI should not be understood as a replacement but as a complement to human expertise. It excels at preparing information, structuring complex data, developing well-founded decision bases, and generating ideas. Human judgment remains indispensable to ensure high-quality outcomes.

3. THE MORE DIGITAL PROJECT MANAGEMENT BECOMES, THE MORE IMPORTANT PEOPLE BECOME

The accelerating digital transformation, driven by artificial intelligence, poses profound challenges for project management. While many equate “digital competencies” primarily with new tools and algorithms, a recent research project delivers a clear and unexpected conclusion: “The more digital everything becomes, the more important the ‘non-digital’ becomes – meaning people.” Ultimately, the success of digital transformation depends on the individuals who lead it.

Award in the “Doctoral Thesis” Category

Dr. Jessica Nagel was honored with the 2025 German Student Award in Project Management for her dissertation “Digital Literacy in Project Management – Developing a Competency Structure Model for Digitally Structured Project Management.” Rooted in her own practical experience and examining the effects of digital transformation and AI, her work presents an empirically grounded competency framework. For Nagel, who completed the dissertation at a university while strongly anchored in industry practice, the award is an “incredible honor” that affirms the real-world relevance of her research.

Trust, Communication, Motivation: The New Core Factors

Her findings show that project managers will not be replaced by digital transformation – they will become even more crucial. Social and cognitive skills move into the spotlight. According to Dr. Nagel, the three most important responsibilities of a project manager are building trust, maintaining communication, and fostering motivation.

Building trust in digital teams is “super challenging,” as the interpersonal dimension quickly erodes when informal encounters – such as grabbing a coffee together – disappear. One essential task is maintaining trust within the team and, in an era shaped by AI, also cultivating trust in the technology itself.

The model she developed links seven dimensions of digital literacy with ten areas of professional practice, demonstrating that digital transformation shifts the weighting of existing competencies. Skills such as choosing appropriately between digital and analog methods and managing information overload are becoming increasingly important.

The findings already have practical impact: the author is designing GPM seminars based on the model to strengthen digital competencies. Organizations also benefit from “concrete implications for role profiles and strategic competency management.”

About the Author



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Sebastian Wieschowski is an editor at the German Project Management Association (GPM), the national member association of the International Project Management Association (IPMA) in Germany. He is responsible for developing GPM's media relations and serves on the editorial board of PM Aktuell, a quarterly magazine distributed to more than 6,500 GPM members as well as external stakeholders.

Born in 1985 in northern Germany, Wieschowski developed an early fascination with journalism. His formal education began with active contributions to school and local newspapers. He later completed journalistic training at the Cologne Journalism School for Politics and Economics, earned a Master Level Diploma from the School of Journalism at Eichstaett University, and undertook professional training at a regional newspaper publisher. He also holds a postgraduate M.Sc. degree in Public Health from Hannover Medical School.

In addition to his freelance journalism for national and international outlets, including major German media such as DIE ZEIT, Wieschowski has held senior communications roles since 2012. He first worked as press officer for a private university specializing in social work, then for a psychiatric hospital, and later for an industrial company. In September 2024, he joined GPM's Marketing and Public Relations department, where he focuses on strengthening the visibility and public relevance of project management through editorial formats such as storytelling.

Alongside his professional career, Sebastian Wieschowski is also active as a freelance author in his lifelong passion, numismatics. He writes for both German- and English-language specialist publications, and his work has been recognized three times by the Numismatic Literary Guild, a writers' association based in the USA.

Sebastian is a reporter at heart and enjoys discovering inspiring stories and meet people from around the world, a goal that is particularly easy to pursue in the field of project management. He can be contacted at s.wieschowski@gpm-ipma.de.