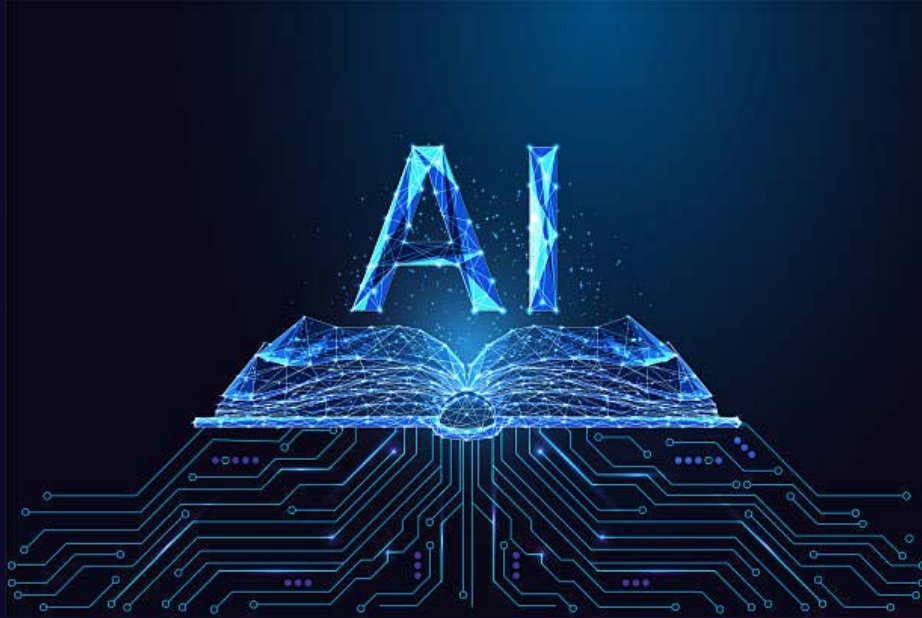




AI in Project Management: Disruption or Complementarity?

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2025



This research

- Systematic literature review
- 25+ recent publications
- Human-AI collaboration
- AI - critical success factor?

The author

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Where AI helps:

- Minimizing costs
- Risk forecasting
- Reducing delivery delays
- Resource optimization

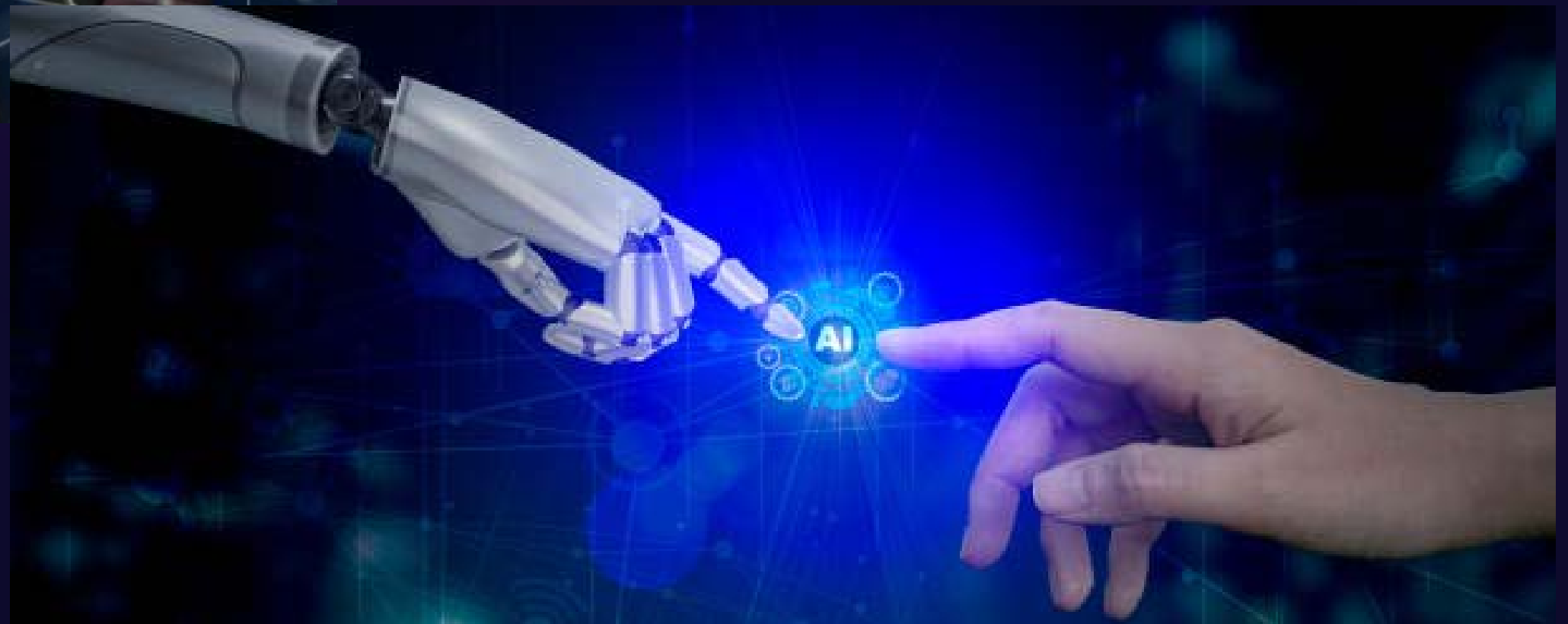


Issues:

- Organizational resistance
- Data quality limitations
- Regulatory gaps



From tool-based assistance
to
co-evolutionary partnership



Ethical concerns, algorithmic bias and transparency gaps.





Introduction: The AI-PM Paradox

Productivity Gains

Project delivery with AI
25-30% faster



The Paradox



Hidden Costs

42% PM stressed by
managing AI outputs
(interpreting complex AI
recommendations)

Disruption vs. Complementarity

Theoretical Background

Disruption

A scenario where technology fundamentally alters existing processes, roles, or business models, often rendering traditional skills or structures obsolete.

AI technologies are being embedded into each PMBOK knowledge area—automating status reports, generating predictive models for risk assessment, and providing real-time data dashboards.

Complementarity

A symbiotic relationship in which technology enhances but does not replace human expertise.

The Recursive Theory of Knowledge Augmentation of Harfouche et al. suggests that effective AI use depends on iterative human-AI interactions where tacit and explicit knowledge are co-developed.

AI Applications in Project Management



Focus on functions:

automation

compliance

decision-making

risk management

training across project lifecycles

Benefits and Costs of AI Implementation

25-30%

Faster Completion

Agile teams using AI-driven decision support systems report 28% faster sprint completion

94%

Risk Prediction

AI systems achieve 94% accuracy in construction project risk prediction

18%

Cost Reduction

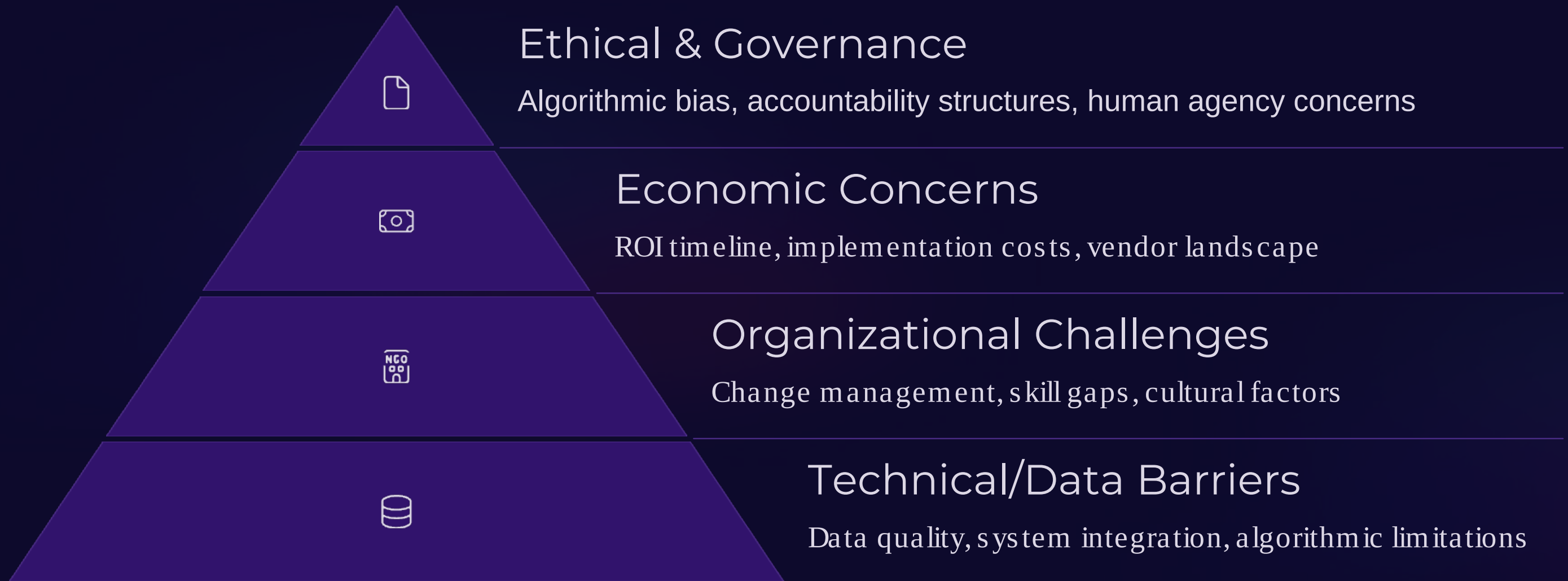
Automated forecasting leads to 18% lower project overheads

\$50K+

Implementation Cost

AI-Driven DSS requires \$50K-\$200K setup plus 15% annual maintenance

Implementation Barriers



Implementation Barriers

Resistance from senior managers – 54%

Missing data - 67%

PM missing AI literacy – 88%





Ethical Challenges and Governance Models

Algorithmic Bias

skew towards large projects - 73%
gender bias - 31%
geographic representation - 56%

Accountability Structures

no decision audit trails - 64%
no responsibility matrices - 81 %
no liability insurance - 68%

Governance Models

Strategic => Tactical => Operational

Recommendations for Implementation



Practitioners

- maturity assessment
- prioritizing use cases
- human-AI processes



Organizations

- AI-PM governance
- data infrastructure
- upskill project teams



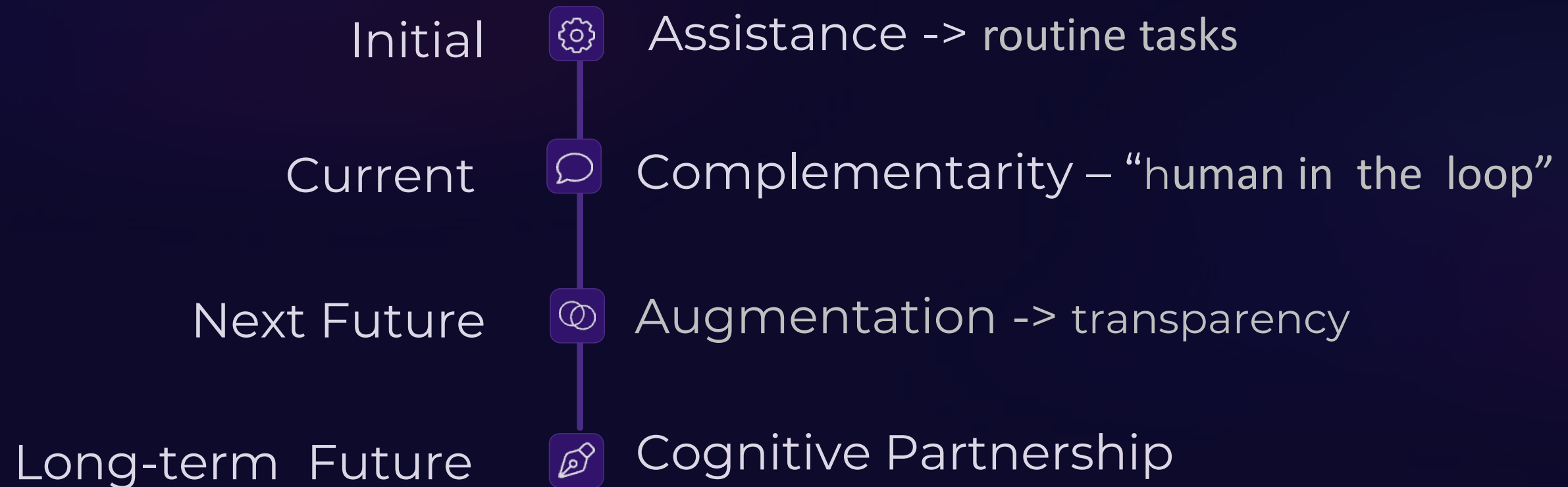
Researchers

- valuation frameworks
- longitudinal effects
- ethical boundaries





Human-AI Relationship Evolution



Conclusion: From Disruption to Complementarity

AI Analysis

Computational processing of project data and pattern recognition



Human Judgment

Contextual interpretation and ethical oversight

Continuous Learning

System improvement through feedback and adaptation

Integrated Decisions

Combined insights leading to optimized project outcomes

Thank you very much for your attention!

Wish you good luck and exciting experiences with AI,
your new companion!

