

AI Without Engineers: How Smart Teams Use Artificial Intelligence to Solve Real Problems Without Coding

Mohammed Hamed Ahmed Soliman

Published by personal-lean.org, 2025.

While every precaution has been taken in the preparation of this book, the publisher assumes no responsibility for errors or omissions, or for damages resulting from the use of the information contained herein.

AI WITHOUT ENGINEERS: HOW SMART TEAMS
USE ARTIFICIAL INTELLIGENCE TO SOLVE REAL
PROBLEMS WITHOUT CODING

First edition. July 19, 2025.

Copyright © 2025 Mohammed Hamed Ahmed Soliman.

Written by Mohammed Hamed Ahmed Soliman.

Table of Contents

Chapter 1: The New Frontier – Lean Thinking Meets Artificial Intelligence.....	1
The Convergence of Lean and AI	3
AI: Not Just for Coders or Tech Giants	4
Lean Philosophy Aligned with AI	5
Real-World Examples of Lean + AI.....	6
How to Begin Your AI-Driven Lean Journey.....	8
Chapter 2: What AI Can Do — And What It Can't (Yet).....	10
Understanding AI in Plain Language.....	12
What AI Can Do in Lean Contexts.....	14
What AI Can't Do (Yet).....	16
AI vs RPA vs Digital Tools: What to Use When.....	17
Ethical Considerations: Responsible Use of AI	19
Final Thoughts	20
Chapter 3: AI-Powered Root Cause Analysis and the “AI 5 Whys”	21
Understanding AI in Plain Language.....	23
What AI Can Do in Lean Contexts.....	25
What AI Can't Do (Yet).....	27
AI vs RPA vs Digital Tools: What to Use When.....	28
Ethical Considerations: Responsible Use of AI	30
Final Thoughts	31
Chapter 4: Automating Standard Work with AI Tools...	32
From Manual SOPs to AI-Powered Standards.....	34
Case Example: AI in Finance and HR Standardization..	36
Benefits: Smarter, Faster, More Reliable.....	37
Important Reminder: People First, Then Tools.....	38
Conclusion: A New Era of Standard Work	39

Chapter 5: ChatGPT as Your Daily Kaizen Coach	40
ChatGPT as a Conversational Partner for Continuous Improvement	42
Prompt Frameworks for Daily Reflection and Action	43
Example Team Case: Marketing Kaizen with ChatGPT.....	45
Building Team Habit Loops: AI-Guided Virtual Huddles.....	46
Risks and Guardrails: Ensuring Reliability and Learning.....	47
Chapter 6: No-Code AI Platforms for Everyday Productivity.....	50
What Are No-Code AI Tools?.....	52
How Non-Technical Teams Are Using These Tools.....	54
Case Study: SPAR & Microsoft Copilot.....	55
Steps to Adopt No-Code AI for Your Team.....	56
Tips for Selecting the Right No-Code AI Platform	57
Conclusion: Everyday AI for Lean Excellence	58
Chapter 7: AI for Managers — Smarter Meetings, Reports, and Planning.....	59
AI-Enhanced Meetings: Less Talk, More Action	61
Smarter Reports with Auto-Generated KPIs and Dashboards	62
AI in Daily Collaboration and Agile Planning.....	63
Strategic Deployment: AI Meets Hoshin Kanri.....	64
The Evolving Role of Managers in the AI-Augmented Workplace.....	65
Conclusion: From Manager to Multiplier	67
Chapter 8: Faster Process Mapping and Decision Trees with AI	68
AI-Driven Process Mapping from Text.....	70

Decision Trees: Fast, Clear, and Consistent	71
Real-World Example: Public Sector Licensing Reform...	72
Benefits: Speed, Clarity, Inclusiveness	73
Caution: Always Validate the Flow.....	74
Chapter 9: The Human Side — Ethics, Bias, and Judgment	75
The Ethical Risks of AI in the Workplace	77
The Lean Leadership Advantage	79
Example: Responsible AI in Legal Services	80
Building Governance: Guidelines, Training, and Culture	81
Building Trust Across the Workforce.....	83
Conclusion: Ethics as a Competitive Advantage.....	84
Chapter 10: Leading the Future — Becoming an AI-Literate Team.....	85
Chapter Outlines.....	86

Sample Copy - Dr.
Sample Copy - Dr.
Sample Copy - Dr.

Sample Copy - Dr. Soliman
Sample Copy - Dr. Soliman
Sample Copy - Dr. Soliman

Copy - Dr. Soliman
Copy - Dr. Soliman
Copy - Dr. Soliman

AI Without Engineers
How Smart Teams Use Artificial
Intelligence to Solve Real Problems
Without Coding

Sample Copy - Dr. Soliman
Sample Copy - Dr. Soliman
Sample Copy - Dr. Soliman

Copy - Dr. Soliman
Copy - Dr. Soliman
Copy - Dr. Soliman

Sample Copy - Dr.
Sample Copy - Dr.
Sample Copy - Dr.

Sample Copy - Dr. Soliman
Sample Copy - Dr. Soliman
Sample Copy - Dr. Soliman

Copy - Dr. Soliman
Copy - Dr. Soliman
Copy - Dr. Soliman



Chapter 1: The New Frontier – Lean Thinking Meets Artificial Intelligence



Chapter Outlines

- **Introduction to convergence:** how Lean principles and AI capabilities are combining to transform modern work.
- Why AI adoption isn't just for coders or data scientists.
- Survey insights: 77% of professionals report increased confidence and efficiency using AI tools like ChatGPT and process assistants.
- Lean philosophy aligned with AI: value focus, waste elimination, continuous improvement—with speed and scale.
- Real-world pilot examples: small businesses using AI chatbots, automations, and digital kaizen.
- How to begin your journey as a non-technical team adopting AI for Lean thinking.

We are standing at the crossroads of two powerful revolutions: **Lean Thinking**, a methodology rooted in efficiency and continuous improvement, and **Artificial Intelligence (AI)**, a fast-evolving technology redefining the way we work. When these two forces converge, they create a new frontier for productivity, innovation, and performance — one that's not reserved for engineers or data scientists, but open to every professional, in every industry.



The Convergence of Lean and AI



Lean thinking has long been the blueprint for eliminating waste, focusing on customer value, and striving for perfection through continuous improvement. Traditionally applied in manufacturing and operations, Lean is now widely embraced across healthcare, finance, education, government, and office environments. At its heart, Lean is about **thinking clearly, acting purposefully, and improving relentlessly.**

Artificial Intelligence brings another layer to this vision: the ability to **automate repetitive tasks, generate insights in real time, and augment human decision-making.** AI doesn't just speed up processes — it changes what's possible. It gives Lean teams a new toolbox to observe, analyze, predict, and act with intelligence.



AI: Not Just for Coders or Tech Giants



There's a common myth that AI is reserved for Silicon Valley or highly technical teams. That's no longer true. With tools like **ChatGPT, Microsoft Copilot, Notion AI, Claude, and Zapier**, AI is now accessible to anyone with a browser and a question. You don't need to write code to use AI. You just need **curiosity**.

A 2024 survey of knowledge workers showed that **77% of professionals reported increased confidence, speed, and accuracy when using AI tools** to assist with tasks such as writing, research, summarization, and decision-making. Whether it's crafting a business email, analyzing a customer complaint log, or generating checklist improvements, AI enhances how Lean practitioner's work.



Lean Philosophy Aligned with AI



Lean and AI are not just compatible — they are complementary. Consider the **core principles of Lean**:

- **Customer value:** AI can help teams better understand customer needs through sentiment analysis and user behavior tracking.
- **Eliminating waste:** AI can identify bottlenecks, suggest faster workflows, or even automate redundant steps.
- **Flow and pull:** Intelligent scheduling and prioritization tools help work flow more smoothly and on demand.
- **Continuous improvement (Kaizen):** AI-driven analytics and feedback loops help teams learn and improve faster than ever.

AI doesn't replace Lean — it accelerates it. It brings **scale and speed** to traditional Lean practices.



Real-World Examples of Lean + AI



- **Small business in Calgary:** A local retailer used an AI chatbot on their website to automate customer support, reducing email volume by 45% and increasing resolution speed by 60%.
- **HR team using AI-generated feedback summaries:** A mid-sized company in Europe used ChatGPT to summarize open-ended employee surveys and highlight key issues in onboarding — a task that used to take weeks, now done in minutes.
- **Operations team in Asia using AI workflow automation:** Using tools like Zapier and Make, the team created rule-based flows for document handling and approval, cutting administrative lead time by 70%.
- **Remote marketing team with AI Kanban assistants:** The team added AI summarizers to their Kanban board to auto-update cards with meeting notes, task dependencies, and content drafts.