ABS TechEDGE

Your Newsletter on AI, Analytics & Innovation @ ABS | October 2025



Al Isn't Human — But It Can Think Like One (If You Guide It)

Reframing AI as a Collaborative, Transparent Problem Solver



A Junior Engineer:

Too often, AI is treated like a shortcut: give it a vague prompt and expect a perfect solution. But high-performing teams don't work like that.

They expect:

- Clear problem statements
- Diagnostic steps
- Reasoning and trade-offs
- Documentation of choices

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WHAT IF WE EXPECTED THE SAME FROM OUR AI?

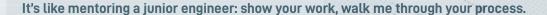
Engineering AI to Think in Steps

By structuring how we ask and how the Al thinks, we can improve:

- Reliability (AI doesn't skip critical steps)
- Trust (We can inspect and validate the logic)
- Repeatability (Same inputs = same outputs)

Instead of saying: "Design a bearing for me," we can guide AI with:

"First list candidate d/D values from catalog. Then check if Cr meets requirement. Then recommend top 3 options and explain why."



Examples at ABS

Use Case	Human Process	Al-Guided Thought Process
Bearing selection	Review d/D/B, match Cr/Cor, check clearance	Catalog filter → Load match → Explain top 3
PDF Search Tool	Ctrl+F + knowledge	Parse tables → Extract structured values → Rank by confidence
Future Chatbot	Answer customer with verified info	Ask clarifying Qs → Check product database → Show sources

Tools That Support Step-by-Step Al

We're already using structured approaches like:

- Chain-of-Thought prompting: asking the AI to explain each step
- Tree-of-Thought reasoning: explore multiple options before picking the best
- NLP Explainability: highlight where the answer came from in a document

These tools are powerful not just because they work — but because they help us trust how they work.

Takeaway: Don't Just Prompt. Guide.

Al isn't magic. It's logic. And if we treat it like a tool that can think with us — not just for us — we get better results.

Next time you use Al

- Break the task into steps
- Show its reasoning
- Highlight trade-offs
- Document what it considered and why

That's not just smarter Al. That's engineering-grade Al.