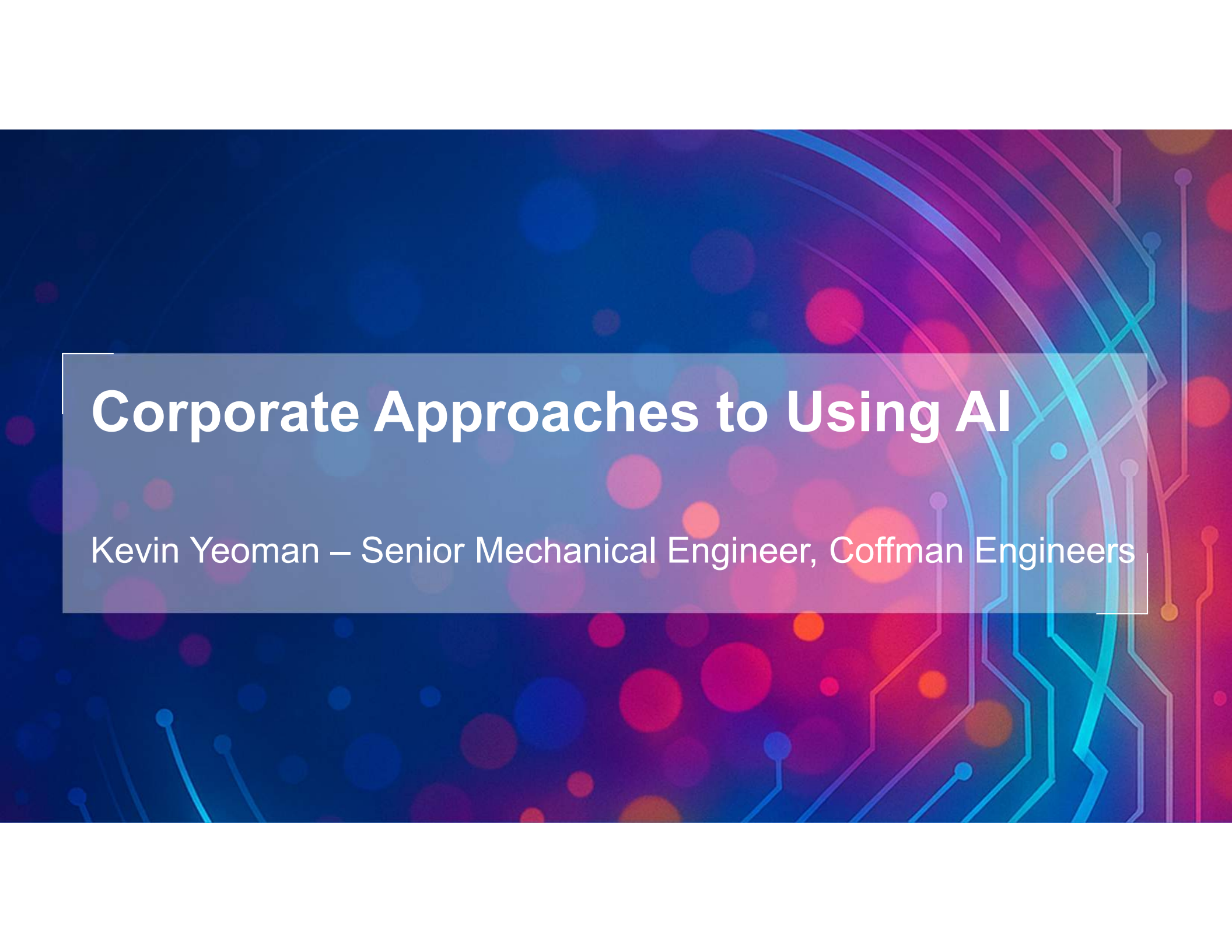




Corporate Approaches to Using AI

Kevin Yeoman – Senior Mechanical Engineer, Coffman Engineers

Corporate Approaches to Using AI:

Overview

- I. Strategic Framing
- II. Team Infrastructure & Culture
- III. Training & Learning
- IV. Responsible Use
- V. Practical Application
- VI. Takeaways

Start Somewhere!

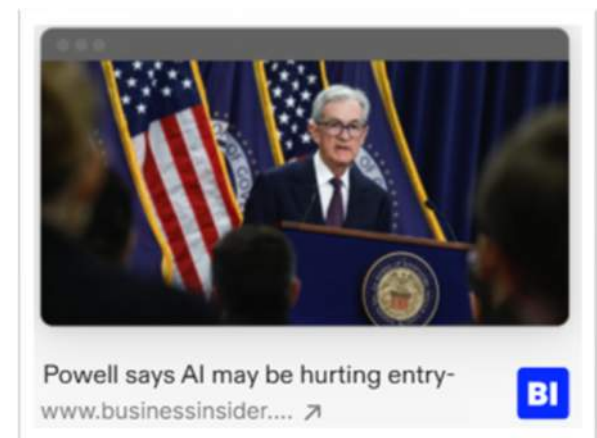
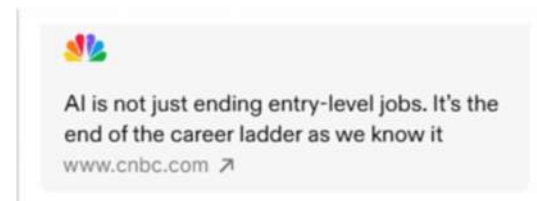
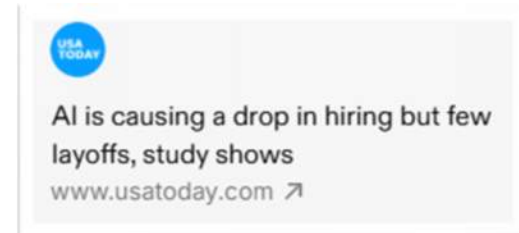
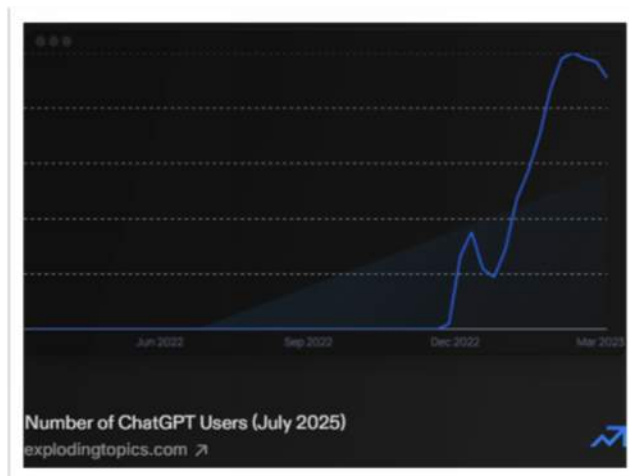


Strategic Framing:



I. Strategic Framing: AI Forecasts & Industry Trends

- 72% of organizations now use AI
- ChatGPT: ~800M weekly users
- AEC firms expect AI to be essential
- AI reshaping hiring and skills



I. Strategic Framing:

AI Investment in 2025

- Global investment is projected to reach \$200 billion in 2025
- U.S. accounting for \$100 billion
- Led by Amazon, Microsoft, Alphabet, and Meta

LLM's are only the beginning...



I. Strategic Framing:

Future Horizon (2026–2027)

- Autonomous AI agents emerging
- Half of business decisions may be AI-driven
- Design workflows for future AI capabilities



AI 2027

Explores where forecasts place artificial general intelligence by 2027, examining potential timeline and implications.

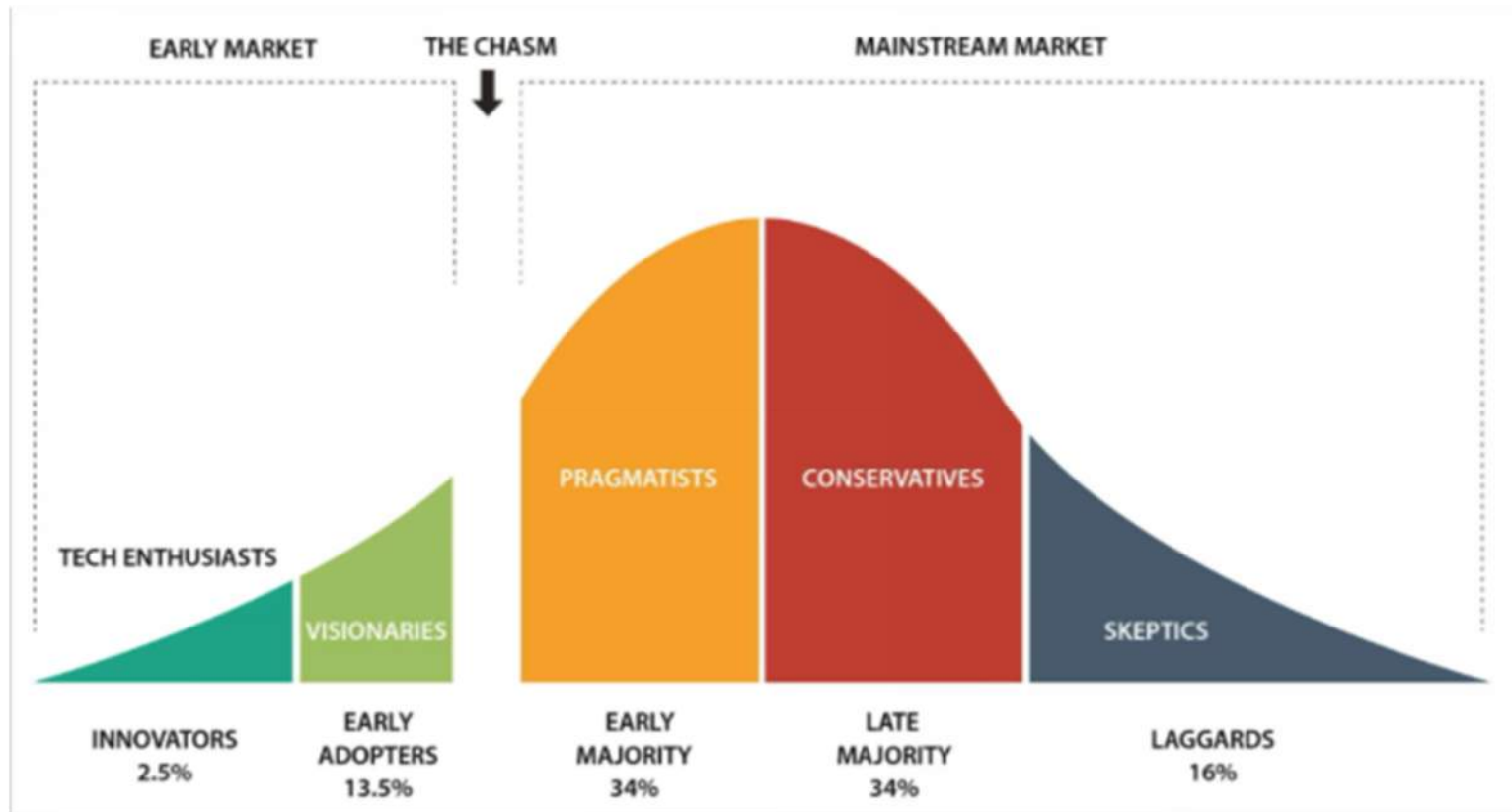


Agentic systems

Timeline for agentic AI development, featuring systems that interpret visuals and diagrams, and operate computers independently without human intervention.

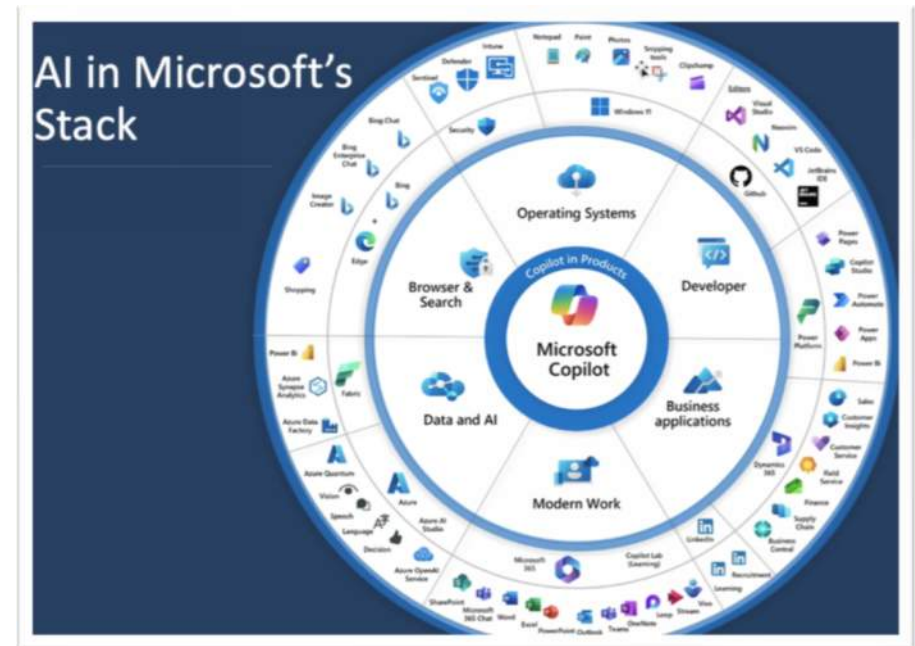


I. Strategic Framing: Crossing the Adoption Chasm



I. Strategic Framing: AI Fluency as the Goal

- AI touches every application
- AI learning starts with leadership
- Treat AI fluency as a core skill
- Integrate into development plans
- Build everyday AI culture

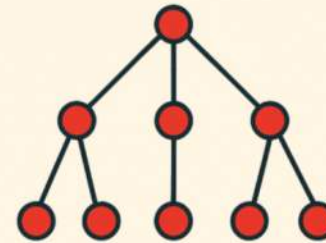


Team Infrastructure and Culture:

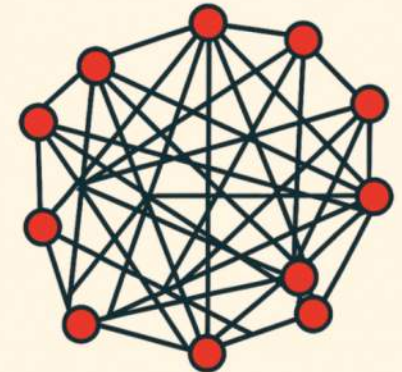


II. Team Infrastructure & Culture: Organization Setup

- Overall strategy, onboarding, and policies
 - High level task force, Local user groups, Department POC
- Top down and Bottom up
 - Two-way feedback drives adoption
- Shared Workspace for AI Collaboration
 - Central AI hub for resources and prompts
 - Company-wide AI chat/forum
 - Share wins to scale learning



“Top-down”

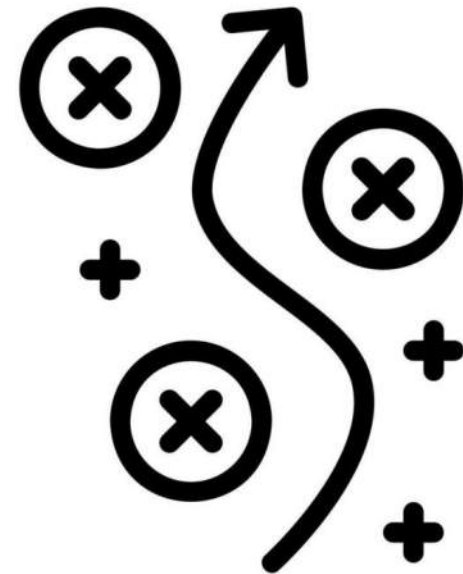


“Bottom-up”

II. Team Infrastructure & Culture:

Avoiding Deprecation

- Stay agile, tools evolve fast
- Build for concepts, not just tools
- Monitor and pivot as needed
- Foster experimentation
- Encourage initiative



Training & Learning:



III. Training & Learning:

Onboarding Ideas

- Baseline competency for all
- Ethics and policy awareness
- Consistent understanding across employees
- One-on-One setup and coaching
- Role-specific instruction
- Address individual concerns
- Mentor follow-up support



III. Training & Learning:

Ongoing Education Ideas

- Periodic tips and webinars
- Byte-sized content
- Share internal success stories
- Feedback-driven updates



III. Training & Learning:

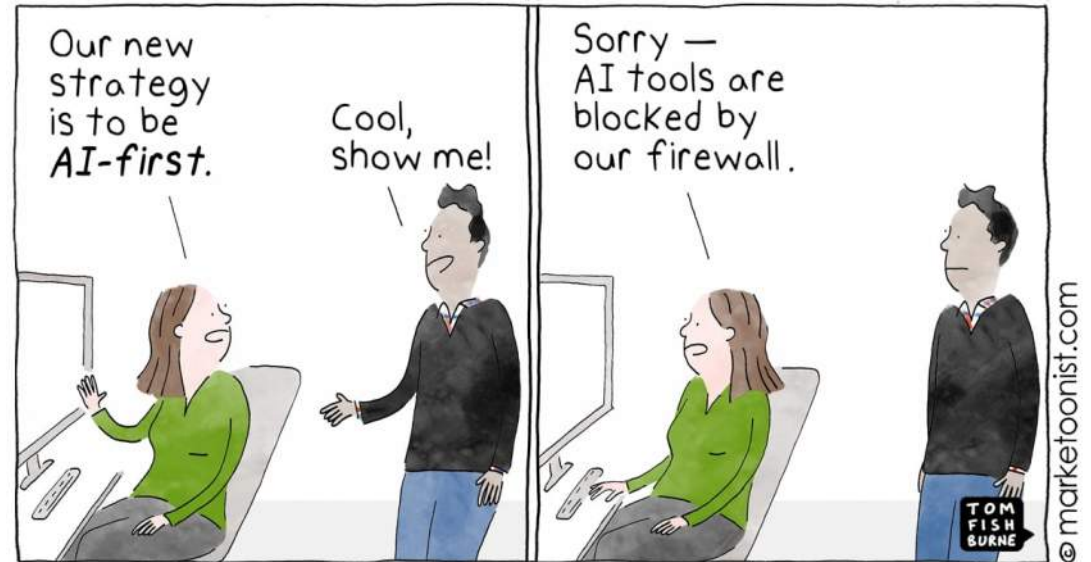
Prompt Library

- Curated repository of effective prompts
- Accessibility accelerates adoption
- Encourages knowledge sharing
- Minimizes redundancy



IV.

Responsible Use:



IV. Responsible Use: AI Policy & Best Practices

- Clear usage policy
- Ethical and legal compliance
- Practical do's and don'ts
- Regular updates and enforcement



Approved Tools

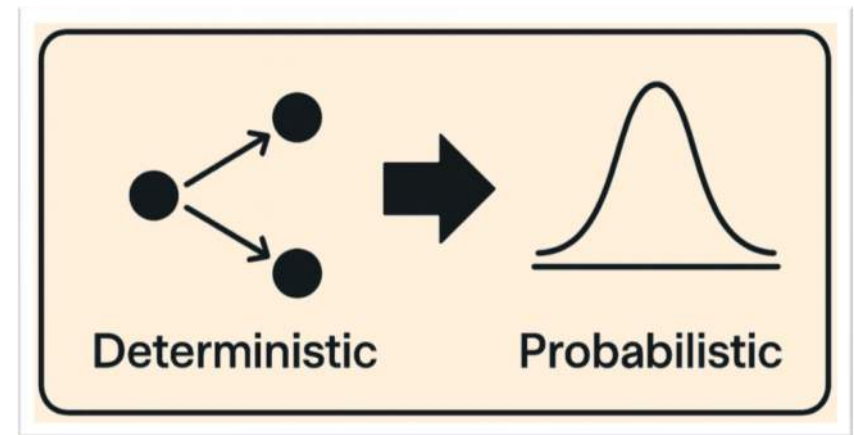
- List of approved AI tools
- Process for evaluating new tools
- Access control and licensing
- Regular review and updates



IV. Responsible Use:

AI is Probabilistic, Not Deterministic

- AI predicts, not guarantees
- Human judgment remains essential
- Trust but verify
- Spot errors and hallucinations
- Build a culture of quality



V

Practical Application:



V. Practical Application:

How to use AI

1000 words in, 50 words out

Request for Proposal



Copilot Prompt



Field	Value
Name	John Doe
Age	35
Gender	Male
Address	123 Main St, New York, NY 10001
Phone	212-555-1234
Email	john.doe@example.com
Occupation	Software Engineer
Education	Master's Degree in Computer Science
Experience	5 years of experience in software development, specializing in web applications.
Skills	JavaScript, React, Node.js, Python, SQL
Availability	Full-time
Salary	\$80,000
References	See attached references



V. Practical Application:

How NOT to use AI

50 words in, 1000 words out

Copilot Prompt



"Write a professional client proposal for a 20,000 SF electrical engineering project. Keep it brief and generic. Include a scope, timeline, and a price. Make reasonable assumptions and add anything else you think is standard. Use a professional tone."



V. Practical Application:

4 Rules of Co-Intelligence



#1 – Always Invite AI

- AI = Intern, not software
- More experiments = better results
- You are not a programmer, you are a teacher

#2 – The human in the loop

- Don't over-delegate
- AI doesn't "know" anything
- Always keep the last step
- You are always responsible

#3 – Treat AI like a person

- Tell it who it is (role)
- Changes how you speak
- Built on plain language
- Conversations get results

#4 – This is the worst AI you'll ever use.

- Change comes gradually, until it doesn't
- AI 'agents' will perform work autonomously
- AI will perform some levels of work we never imagined
- Provide the perspective
- Watch, learn, and adapt!



V. Practical Application:

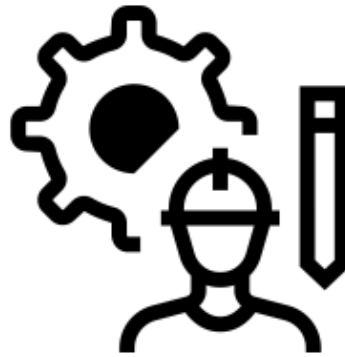
3 Modes of AI Use



Research Assistant:
Summarize and synthesize



“compare these 2 documents”



Doer / Helper:
Automate tasks



“re-format this list”



Thinking Partner:
Brainstorm and critique



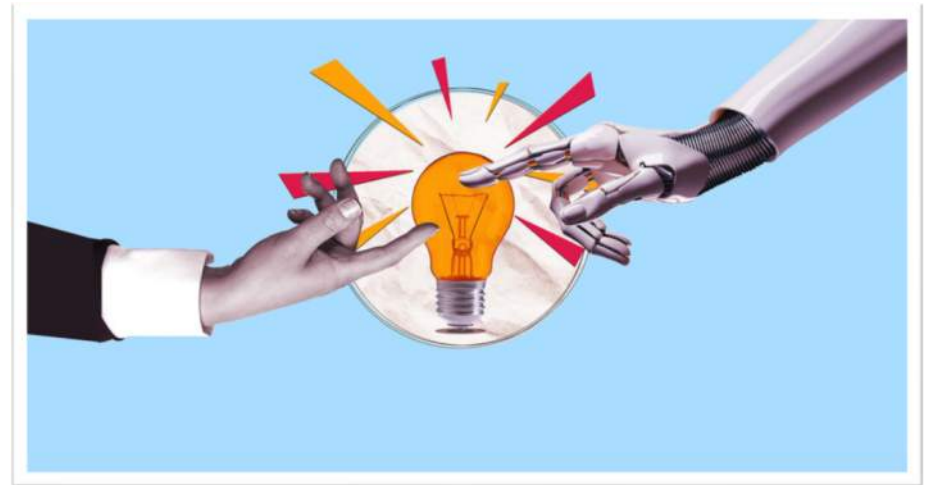
“analyze this argument”



V. Practical Application:

AI as a Cognitive Amplifier

- Boost creativity and insight
- Explore more alternatives faster
- Reduce cognitive load
- Human + AI > human alone



V. Practical Application: Voice-to-Text & Chat Memory

- Use voice input
 - Keyboard can be the bottleneck
- Leverage chat memory for context
 - Ask “send to preferences”

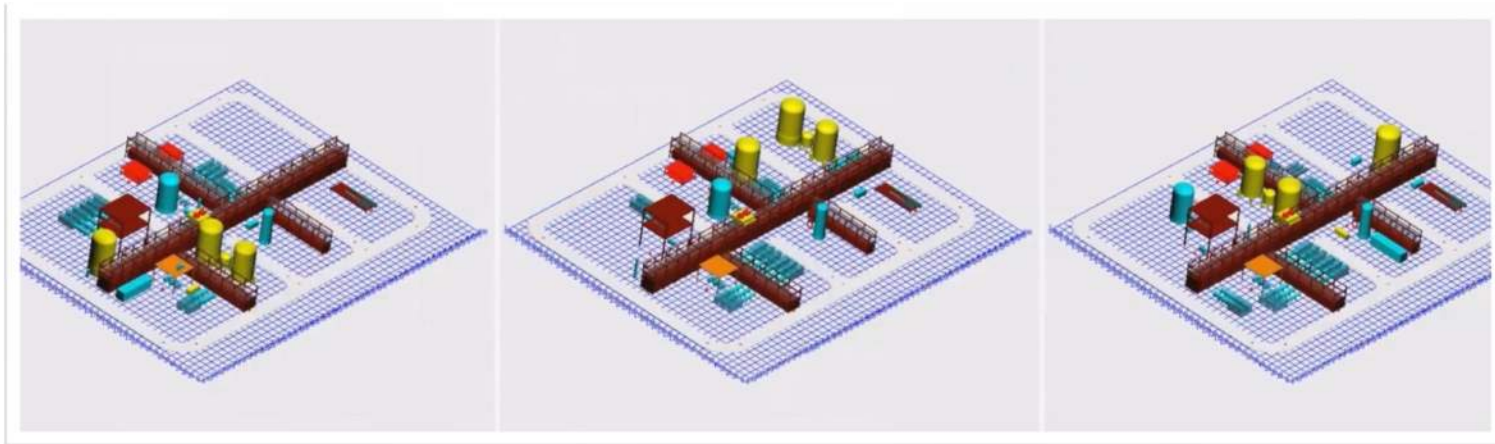


Don't type. Talk.

V. Practical Application:

Large Company Examples

- **Siemens Energy** uses the EOS M 400-4 to create new burner fronts for its gas turbines, reducing lead times from 26-weeks to 3-weeks
- **Boeing** has developed software to inspect an entire plane using a drone in just 40-minutes (down from 6-hours)
- **Skydio's** drones can inspect power lines 3x faster than a bucket-truck crew.
- **AspenTech**, develop 3D layouts straight from HYSYS models → weeks of effort done in hours



V. Practical Application:

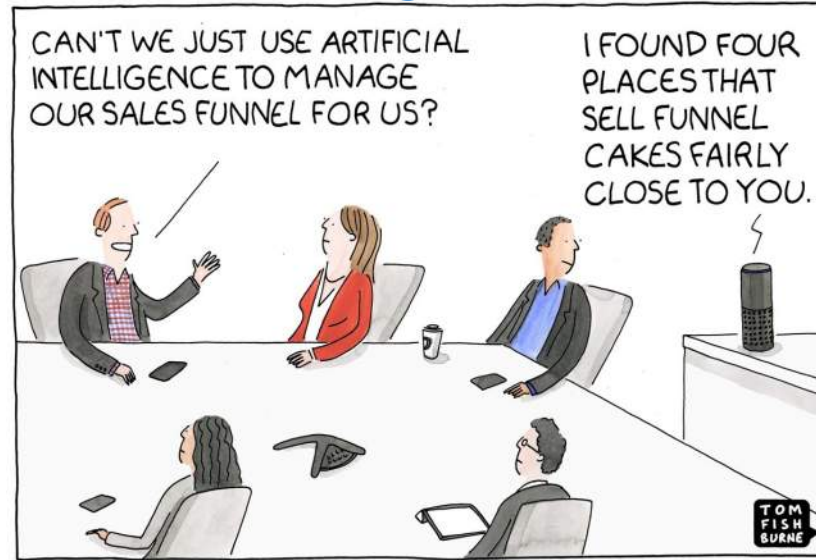
Examples of AI in Practice

- Email editing
- Meeting prep and summary
- Task lists
- Specification breakdowns
- Reports from notes
- Marketing
- Proposals
- Presentations



VI

Takeaways:



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VI. Takeaways

- Build Momentum, Not Perfection
- Activate your AI community
- Design for change
- Celebrate small wins
- Normalize experimentation
- Frame AI as a long-term skill



Thank you!