

Design of Work - Error Trap AI Agent - Case Studies

Microsoft 365 Co-Pilot and OpenAI ChatGPT Agents



Transport Industry - Preventing Misinterpretation in Standard Operating Procedures

Scenario: A transport safety department uploads an updated SOP document for heavy haulage maintenance. The document contains procedural steps for engine inspections, but the instructions include ambiguous terms like "ensure proper torque" without defining acceptable ranges.

How the AI Agent Helps

Identifies Ambiguous Language: The agent flags "ensure proper torque" as unclear and suggests specifying the torque range in Nm (Newton-meters).

Detects Blame Language: The document states, "Technicians must avoid errors when securing fasteners," implying human error as the cause rather than systemic issues. The tool suggests reframing it to focus on process improvement.

Recommends Just Culture Review: Since the document discusses error prevention, the agent prompts a Just Culture Review to ensure that accountability is fair and aligned with human performance principles.

Outcome: The organization revises the SOP to include precise torque values and removes blame-focused language, reducing the risk of misinterpretation and improving compliance.



Healthcare – Enhancing Clarity in Emergency Procedures

Scenario: A hospital updates its Emergency Cardiac Arrest protocol and uploads it for review. The document contains steps for administering defibrillation but uses inconsistent terminology.

How the AI Agent Helps

Flags Inconsistencies: The agent highlights different terms used for the same action and recommends standardizing them to avoid confusion.

Identifies Risk-Critical Information: Since the document pertains to life-threatening situations, it ensures that every control measure (e.g., verifying correct defibrillator settings) is explicitly stated.

Suggests ESL (English as a Second Language) Review: The hospital employs multilingual staff, and the agent recommends simplifying technical jargon to improve accessibility for non-native English speakers.

Outcome: The hospital updates the protocol to use consistent terminology and provides a understandable summary for ESL workers who feel more engaged.

Principles Based AI Approach to HOP

What does a principles based approach to using AI for HOP and Operational Learning look like.



AI, Like Humans, Makes Mistakes – Learning is Key

Just as people make mistakes in complex and adaptive systems, AI is not infallible—it will generate incorrect, misleading, or incomplete responses. Instead of expecting perfection, focus on continuous learning and improvement. AI errors are opportunities to refine queries, verify information, and engage in critical thinking. Just as we improve human performance by learning from mistakes, we can enhance AI interactions by iterating knowledge.



Blame Fixes Nothing – Learning Improves AI Responses

If AI provides an inaccurate or unhelpful response, the focus should be on improving the prompt or refining the inquiry rather than blaming the tool, ask, "How can I rephrase this to get a more useful answer?"



Context and Knowledge Drives AI Behavior

The effectiveness of AI responses depends on the context of the instruction and body of knowledge provided, including ethical use, privacy, copyright, misinformation and hallucination. The richer the context, the more tailored and useful the response. Be curious and ask Better Questions, just as you would with a human colleague to drive better behavior.



How You Respond to AI Mistakes Matters

If AI misinterprets a query, recognize it as an opportunity to refine and improve the interaction. Small experimentation "AI Trojan Mouse" and iteration with prompts can enhance learning and improve response accuracy and reduce hallucination and misinformation.



Learning is Essential for AI Improvement

Users who continuously refine how they interact with AI will derive greater value from it. Engage in an AI continuous improvement cycle of Ask, Reflect, Refine, and Apply—to optimize AI use in operational learning.

