



Member's-Only Content: Please Read Before Proceeding .

The case studies and other materials in this section are confidential and for members of the ForGood Framework community only. For Discussion, Not Distribution: These materials are intended to facilitate discussion and are not for public use. Do Not Cite or Share: Please do not cite, share, or distribute these materials outside of this member's section.

From Offloading to Engagement: An Experimental Study on Structured Prompting & Critical Reasoning with Gen AI

Gerlich (2025)

Context

Generative AI tools are widely used for writing, research and problem-solving, yet its adoption often outpaces training: Gartner found 38% of managers use GenAI to draft strategic communications, while fewer than 15% had any instruction on evaluating AI output quality or risks. This cross-country experiment (n = 150; Germany, Switzerland, UK) tested if structured prompting reverses cognitive offloading in unguided AI use. Results show structured prompting significantly can reduce such offloading and enhances both critical reasoning and reflective engagement for better outcomes.

Key Insights

Unguided users added no measurable value beyond what AI produced alone

→ They were often unaware they had offloaded reasoning, believing they were "just checking facts"

Cognitive offloading mainly operates at three levels (individual, corporate, societal)

- **Individual:** Users slide into passive AI interaction. The more familiar and efficient AI becomes, the more users develop uncritical "instrumental trust," no longer questioning how or why it works.
- **Corporate:** Enterprise AI tools (like Copilot) are designed to prioritise fluency and automation over user agency, creating a structural problem beyond training. Without reflective use, this can harm organisational differentiation, inadvertently accelerating the case for its automation-replacement.
- **Societal:** Preserving cognitive autonomy requires intentional design of systems and institutions that provide and enable space for questioning and critical engagement alongside AI.

A five-step prompting protocol helped reverse cognitive offloading and improve quality

1. *Initial reflection:* Formulate your own position before using AI
2. *Targeted research use:* Use AI only for factual retrieval, not argument generation
3. *Argument construction:* Build your response from the collected information without copying AI text
4. *Critical review:* Submit your arguments to AI to identify gaps and counterarguments
5. *Final reflection and revision:* Refine your answer while maintaining personal authorship

→ Users scored ca 7.8 points higher than those not using AI and 5.2 points higher than unguided AI users

→ Mediation analysis confirmed this: This increased reflective engagement, which drove better reasoning

→ Higher education and older age predicted lower offloading across all conditions, country had no effect

Implications

- How could structured prompting protocols be embedded into the design of AI tools or team processes to preserve critical reasoning?
- What oversight and corrective processes does your organisation have in place to detect when AI use shifts from supporting reasoning to replacing it?
- As reflective AI use might fade over time, how could you train this over time?