

Critical Thinking in the Age of AI

Core Concepts Framework

THE FOUR PILLARS OF CRITICAL THINKING

Pillar	Definition	Key Question
Epistemic Humility	Recognizing the limits of your knowledge and your sources' knowledge	What don't I know? How certain should I be?
Source Evaluation	Assessing credibility, expertise, incentives, and potential biases	Who is making this claim and why?
Logical Analysis	Examining argument structures and evidence-to-conclusion links	Does the evidence actually support this conclusion?
Metacognition	Monitoring your own thinking, biases, and reactions	Why do I believe this? Am I being consistent?

AI-SPECIFIC CHALLENGES

Why AI complicates evaluation: AI has no stable identity to assess, no visible training data, no accountability for errors, and produces confident output regardless of actual certainty. You cannot use source credibility as a shortcut - you must evaluate claims themselves.

Key Biases to Watch:

Automation Bias	Over-trusting automated systems, even when they contradict your observations
Processing Fluency	Easy-to-read content feels more true (AI is optimized for fluency)
Confirmation Bias	Preferring information that confirms what you already believe
Overconfidence	Being more certain than accuracy warrants, especially at high confidence levels

YOUR PERSONAL PROTOCOL

BEFORE	DURING	AFTER
Clarify your actual need	Treat outputs as first drafts	Prioritize verification by importance
Assess what you already know	Flag high-stakes claims for verification	Seek disconfirming information
Identify stakes: What's the cost of error?	Monitor your reactions (agreement isn't evidence)	Articulate remaining uncertainty

VERIFICATION TRIGGERS

Always verify these categories of claims, regardless of how confident they seem:

- Statistics and quantitative claims
- Specific citations (papers, cases, books, quotations)
- Causal claims (X causes Y)

- Claims about current events or recent changes
- Medical, legal, or financial information you might act on
- Claims that perfectly support your existing position

FIVE-STEP ARGUMENT MAPPING

Step	Question
1. Identify Conclusion	What does this want me to believe or do?
2. Map Premises	What reasons are given?
3. Evaluate Support	Do the premises actually support the conclusion?
4. Check Premises	Are the premises actually true?
5. Consider Alternatives	What other conclusions might the same evidence support?

THE CORE INSIGHT

AI is a powerful tool that can enhance your thinking or undermine it, depending on how you engage. The goal is not skepticism for its own sake. The goal is **appropriate engagement**: trusting when trust is warranted, verifying when verification is needed, and maintaining the judgment to know the difference.

Pre-Session Reflection: Think of one time you used AI-generated content without verifying it. What type of content was it? What would have happened if it had been wrong?