

When AI Becomes Part of Your Mind

Extended Cognition, Cognitive Artifacts, and Co-Cognition

Cognitive Drift Papers —Concept Note #1

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The Basic Pattern

A tool begins outside the mind.

It stores information, organizes ideas, or reduces effort.

Repeated use makes the tool easier to rely on.

The person begins thinking through it rather than merely using it.

Eventually, removing the tool changes what the person is able to remember, reason through, or produce.

The core sequence is:

external tool → repeated reliance → cognitive integration → distributed thinking → extended cognition

What Is Extended Cognition?

Extended cognition is the idea that thinking does not always occur entirely inside the brain.

People use notebooks, diagrams, calculators, maps, calendars, search engines, and other people to perform cognitive work.

These external resources can become functionally integrated into memory, reasoning, and decision-making.

The tool is not merely consulted after thinking.

It becomes part of how the thinking happens.

AI intensifies this process because it can participate in reasoning rather than only storing or displaying information.

What Makes AI Different From Earlier Tools?

A notebook preserves what a person writes.

A calculator performs a defined operation.

A search engine retrieves existing material.

Generative AI can reorganize information, propose interpretations, identify patterns, generate language, and respond recursively to new questions.

This makes the tool more than an external memory store.

It can become an active cognitive partner.

The person supplies goals, judgments, context, and correction.

The system supplies generation, comparison, compression, and recombination.

The resulting thought belongs to the interaction.

From Cognitive Artifact to Cognitive Structure

A cognitive artifact is an external object used to support thought.

A cognitive structure is something the person's thinking has adapted around.

The transition occurs gradually.

The user begins storing fewer intermediate thoughts internally.

Ideas are developed through dialogue.

Uncertainty is resolved through prompting.

Writing begins with generation rather than recall.

The mind reorganizes itself around the continued availability of the system.

At that point, AI is no longer just helping with cognition.

It has become part of the cognitive architecture.

Co-Cognition

Co-Cognition is thinking produced through recursive interaction between a person and an external cognitive system.

The person does not simply issue a request and receive a finished answer.

They react to the response.

They correct it.

They notice new possibilities.

They reformulate the problem.

The system's output changes the user's next thought, which changes the next output.

The cognitive process unfolds across the loop.

human intention → AI representation → human evaluation → revised intention → new representation

Neither participant produces the final structure alone.

When Integration Becomes Dependency

Cognitive integration is not automatically harmful.

A person using AI may think more broadly, make better comparisons, or work at a level that would otherwise be inaccessible.

The risk appears when the system becomes necessary for functions the person still assumes are independently available.

The person may retain the final conclusions while losing the path used to reach them.

They may preserve recognition while weakening recall.

They may become highly capable within the combined system and increasingly limited outside it.

This is not simple laziness.

It is cognitive adaptation to a stable external resource.

Extended Cognition and Cognitive Drift

Within the **Reality Drift framework**, Cognitive Drift can occur when the person's internal model of their own ability no longer matches the distributed structure producing their performance.

The individual experiences the output as personal thought.

The actual cognitive system includes the model, interface, stored context, prompt history, and external memory.

The capability is real.

Its location is misunderstood.

Cognitive Drift begins when distributed intelligence is represented as individual intelligence.

How to Recognize the Shift

A tool may be becoming part of the mind when:

- ideas are difficult to develop without opening it
- unfinished thoughts are stored in the interaction rather than remembered
- the system is used to discover what the person thinks
- removing access changes the quality or structure of reasoning
- the person remembers conclusions but not how they were formed

These signs do not prove damage.

They show that cognition has become distributed.

The Core Principle

Human thought has always depended on external structures.

AI makes that dependence more interactive, generative, and difficult to separate from the self.

The important question is no longer whether the tool influences thought.

It is whether the person understands where the thinking now occurs.

A tool becomes part of the mind when the person can no longer perform the same cognitive process without it.

Co-Cognition begins when the external system stops supporting thought from the outside and starts participating in its formation.

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