

The second cognitive revolution? Augmented intelligence and the future of human judgement

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About 70,000 years ago something extraordinary happened. Not a bigger brain. Not a new limb. Not superior muscle. *But a shift in cognition.*

Anthropologists describe what occurred as the **Cognitive Revolution**. *Homo sapiens* developed the ability to think symbolically, construct shared myths, and coordinate at scale. Neanderthals were physically robust and had comparable cranial capacity. Yet they disappeared.

Why?

Because sapiens could imagine things that did not physically exist (nations, gods, money, laws) and then cooperate around them. The revolution was not biological superiority. It was collective imagination plus coordination.

That capacity created civilisation.

Now Something Else is Happening.

Today, we are witnessing a different kind of shift. Not genetic, but cognitive. When a professional works with generative AI, they are no longer operating alone. They are functioning inside a hybrid cognitive system:

- Human judgment
- Machine inference
- Vast distributed data
- Networked knowledge

This is not automation in the old industrial sense. It is augmentation of reasoning itself. The printing press externalised memory. The Internet externalised access. AI externalises synthesis. And that changes the structure of expertise.

From Individual Intelligence to Hybrid Intelligence

For centuries, professional authority rested on scarcity:

- Scarcity of information
- Scarcity of training
- Scarcity of analytical capability

AI collapses those scarcities.

Drafting. Modelling. Forecasting. Comparative research. Scenario analysis. All now occur in seconds. The differentiator shifts from having knowledge to exercising discernment.

In other words:

Intelligence is becoming distributed. Judgment remains human.

That distinction will define the next era.

Is This a Second Cognitive Revolution?

If by revolution we mean a genetic mutation, then *no*.

If by revolution we mean a structural reorganisation of how cognition is created, shared, and scaled, then very possibly, *yes*.

The first cognitive revolution allowed humans to cooperate around shared myths. This one allows humans to cooperate with machines in real time. That is new territory.

The Governance Question

Here is where the conversation becomes serious.

If intelligence is now hybrid, then:

- Who governs machine-generated knowledge?
- Who owns the data that shapes inference?
- How do boards oversee algorithmic risk?
- How do universities assess learning when cognition is augmented?
- How do regulators evaluate decisions influenced by non-human systems?

We are not merely enhancing productivity tools. We are reshaping who (and what) holds authority over knowledge. The implications are structural, not incremental.

Lessons from Neanderthals

Neanderthals were cognitively capable, but they did not evolve the symbolic flexibility that enabled cooperation at scale.

The winners of this new cognitive shift will not be those who merely use AI. They will be those who:

- Embed it within strong governance frameworks
- Preserve human accountability
- Redesign education to emphasise reasoning over recall
- Strengthen ethical stewardship
- Maintain institutional legitimacy

In other words, those who evolve their systems, not just their software.

For Leaders, This Changes the Game

If you lead a business, a university, a board, or a professional practice, the question is no longer:

“Should we adopt AI?”

The question is:

“How do we redesign our model of judgment?”

Because hybrid cognition alters decision speed, risk exposure, talent expectations, organisational design, and trust dynamics.

The institutions that treat AI as a productivity hack will gain efficiency. But the institutions that treat augmented intelligence as a governance issue will be more likely to survive.

Education Must Change First

In the first cognitive revolution, symbolic thinking reshaped culture.

In this one, education must shift from:

- Memorisation → Meta-cognition
- Output → Oversight
- Expertise → Ethical discernment
- Individual brilliance → Human-machine collaboration

If we continue to assess recall while cognition is augmented, we will misestimate capability. If we fail to teach judgment, we will amplify error at machine scale.

The Real Risk

The risk is not that machines become smarter than us. The risk is that we outsource discernment. Augmented intelligence is powerful. But it does not carry responsibility. Humans still do. And that is where leadership now sits.

A Personal Reflection

Across governance, higher education, and strategy work, I see a pattern emerging:

- Boards are grappling with AI risk.
- Universities are grappling with assessment integrity.
- Executives are grappling with productivity expectations.

What is missing in many conversations is this:

We are not just deploying technology. We are participating in a shift in the structure of cognition itself.

That deserves more than an operational response. It requires philosophical clarity.

So, Are We in a Second Cognitive Revolution?

Yes, if we define it as:

A transformation in how intelligence is distributed, amplified, and governed.

But revolutions do not guarantee progress. They guarantee disruption.

Whether this one strengthens human sovereignty (or weakens it) will depend on whether we retain judgment at the centre of the system. Neanderthals did not fail because they lacked intelligence. They failed because they could not coordinate at scale.

Our challenge is different:

Can we coordinate wisely with the intelligence we have just created?

That may define the next century.

Clive Smallman is a professor, business advisor, and technology practitioner with over 40 years' experience across IT, higher education, and leadership development. He has taught the full MBA curriculum, advised governments and institutions on strategy and governance, and works extensively on the practical integration of artificial intelligence into professional and organisational life. His work focuses on clarity, judgment, and sustainable capability rather than technological hype.