Tomorrow's Affairs
Analysis of today
Assessment of tomorrow

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It's time to bring back memorization as a form of brain training

The recent launches of Gemini Deep Think and GPT-5 have highlighted the rapid evolution of large language models.

With 67% of organizations worldwide now using LLMs, you have probably experimented with them, too. Perhaps you were impressed – or less so, in the case of the new ChatGPT.

But you may also have noticed that you are more easily distracted, your memory is not as reliable, and tasks that once felt effortless now seem harder to manage.

It's not your imagination. While AI-powered tools can dazzle with their speed and fluency, relying on them too heavily can stupefy us, making us slower, duller, and less able to think for ourselves. Four trends highlighted by ongoing research stand out.

Digital distraction is reducing our ability to focus and concentrate. Over the last two decades, smartphones and other devices have increasingly undermined our ability to sustain attention, make decisions, and complete tasks, distracting us with constant notifications and luring us into endless scrolling.

The urge to check our phones, reinforced by the small reward the brain registers with every message or update, is as addictive as it is debilitating.

Studies show that these interruptions, combined with the instant gratification of scrolling, make it harder to focus on demanding, long-term tasks.

Memory erosion

Ever easier-to-access information causes memory erosion, which means less capacity to retain and organize information when making decisions.

Researchers began looking at the "Google Effect," some time ago, highlighting the adverse impact on memory of growing reliance on smartphones.

By contrast, earlier generations had to memorize telephone numbers, poetry, and even the periodic table.

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Declining ability to reason well and construct a good argument is the most recent effect of AI as more people delegate their thinking to ChatGPT, Gemini, or DeepSeek.

Studies show that this "cognitive offloading," impedes our ability to think clearly, recognize logical connections, and spot flawed arguments.

It is the mental equivalent of outsourcing your exercise routine – you may conserve energy in the short term, but over time, your own strength diminishes.

Cognitive friction

In the pre-LLM era, researchers had to search the internet – or, earlier, the library – and carefully evaluate each new source.

Was it useful? How did it compare to other sources? Could ideas be combined or tested against one another? The research process trained the mind to remember, apply, analyze, and synthesize. Without that work, those abilities inevitably weaken.

> No longer scrutinizing, debating, and challenging ideas leads to duller minds

No longer scrutinizing, debating, and challenging ideas leads to duller minds. "Cognitive friction" is vital for sharpening brainpower.

The sycophancy of LLMs, which are trained to be pleasing and rely on user approval, dulls our thinking.

There is also a dark side to sycophancy such as when AI models agree with incorrect self-diagnoses or make harmful suggestions.

Alarmingly, a recent study shows that the more users insist on falsehoods, the more mainstream models echo them.

OpenAI is now working to curb sycophancy by (in the words of ChatGPT itself) "encouraging honesty, constructive disagreement, and independent thinking instead of automatic praise or deference."

The problem is that friction makes users uncomfortable, even though that tension is precisely what drives personal growth.

Why struggle to remember things?

Tech companies, workplaces, educational institutions, and individuals must take up the challenge of ensuring that AI strengthens human capacity. For me, sitting in a university, the challenge is immediate.

In 2023, one-third of US college students reported using ChatGPT for coursework; by 2024, another survey found that 86% of students across 16 countries relied on AI in their studies.

With an AI-powered device always within reach, the question we must have a convincing answer to is: why struggle to remember things, reason, or piece together an argument when a LLM will do it for you?

Universities and workplaces could create more device-free environments for reading, reflection, and debate

The answer is that if you do not train your brain to remember, to reason, and to welcome "cognitive friction," the result will be an eroding of the capacity for learning, reasoning, creativity, metacognition, and critical thinking.

Some solutions have a long history. Perhaps it's time to bring back memorization as a form of brain training.

As a simple exercise, you can try to teach your favorite LLM something you just learned: explaining new material to someone else – even an AI assistant – helps knowledge stick.

The ancient Greeks recognized that real learning came not from entertaining, impressing, or catering to students, but from challenging them to question their beliefs.

The Socratic method – asking "What do you mean by that? What evidence supports that? Have you considered another perspective?" – forced students to test their assumptions and sharpen their arguments.

Reducing distraction can include creating spaces, classes, and time without constant recourse to devices. In the United Kingdom, roughly 90% of schools have banned smartphones during lessons.

Universities and workplaces could create more device-free environments for reading, reflection, and debate.

By embracing problem-based learning and simulations, they can help students and colleagues tackle complex, open-ended problems using (and honing) judgment and creativity.

The choice we face is whether to surrender our minds to AI or to treat LLMs as sparring partners that enable us to sharpen our cognitive abilities. The data revolution has entered a new phase, and only by training our minds can we keep up.

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