

Does Technology Make Us More or Less Intelligent?

Every major thinking tool has prompted concern. Writing was said to weaken memory, calculators to damage arithmetic, and search engines to discourage learning. AI feels more significant because it can produce what looks like thought—an argument, explanation or decision—in seconds. This is useful, but it raises a central question: if people develop judgement through effort, error and reflection, what happens when a machine performs much of that work? Technology will certainly change how we think; the real issue is whether we remain active participants or accept convincing answers without examining them.

The case that AI may make us less intelligent

The main concern is *cognitive offloading*: transferring mental work to a tool. A shopping list is harmless, but asking AI to construct an argument may remove the need to reason through it. Memory, judgement, writing and problem-solving remain strong only when practised. If AI repeatedly removes this useful struggle, we may work faster while becoming less capable without it.

Research shows this trade-off. People who rely on devices to store information may perform better in the moment but remember less later. However, much of this memory loss disappears when they make a deliberate effort to learn. Technology does not automatically weaken memory; the brain strengthens the skills it regularly uses.

AI also makes weak ideas sound persuasive. An answer may be incomplete, biased or wrong, yet its confident tone encourages trust. People with less knowledge may be least able to identify mistakes, most likely to accept them, and therefore least likely to develop the expertise needed to challenge future answers.

The effects extend beyond memory. Notifications and instant answers encourage speed and scanning rather than patience and sustained reading. Intelligence involves not only accessing information but concentrating, weighing evidence, tolerating uncertainty and connecting ideas. AI may therefore increase output while leaving understanding shallower.

The case that technology can make us more intelligent

Yet rejecting AI would confuse receiving help with surrendering control. Human progress has always relied on tools that free attention for harder work. Calculators support advanced mathematics; spreadsheets expose patterns and carry out complex calculations, and search engines widen access to knowledge. Similarly, AI can handle repetitive tasks, explain ideas in different ways, translate difficult material, provide feedback and offer personalised support to people without easy access to specialists.

The crucial distinction is between *replacement* and *support*. Replacement means asking AI to think for us; support means using it to test and improve our thinking. Simply using AI without guidance can encourage people to hand over more of the mental work without improving their reasoning. A better approach is to use structured prompts that require reflection, questioning and

comparison. For example, users might ask AI to challenge their view, identify weaknesses or offer an alternative explanation. Used in this way, the tool can strengthen critical thinking and engagement rather than replace them.

Nor should intelligence be judged only by what someone can do unaided. Human thinking has always depended on language, books, institutions and other people. A doctor consulting a database or a scientist using specialist software may make a safer decision than either could from memory alone. The better test is whether technology helps us ask stronger questions, assess evidence and solve otherwise inaccessible problems. If so, it extends human intelligence rather than replacing it.

A balanced conclusion

AI will not automatically make us less or more intelligent. The greatest risks arise when we request an answer before forming a view, mistake confident language for truth, or submit work we cannot explain. The benefits are greatest when we first attempt the task, request alternatives, verify important claims and express the reasoning in our own words. Efficiency matters, but speed is not understanding; users still need enough knowledge to recognise error.

The balanced conclusion is that AI may make us less intelligent when used to avoid thought, but more capable when used to extend it. Mental fitness, like physical fitness, requires regular exercise: focused reading, independent recall, mental calculation, discussion and writing. Schools and workplaces should teach not only how to obtain an AI answer but how to question it. The future of human intelligence will depend both on what AI can do and on which abilities people continue to practise for themselves.

Questions for discussion

1. What do we really mean by “intelligence” here: memory, knowledge, reasoning, creativity, judgement or wisdom?
2. Is using AI really different from using books, calculators, search engines or satnav? If it is, what makes it different?
3. Which mental tasks are we happy to hand over to technology, and which should we keep practising ourselves?
4. When is AI a helpful tutor or thinking partner, and when does it start doing the thinking for us?
5. Could AI reduce inequality by giving people personalised support, or widen the gap by helping those who already have strong knowledge and digital skills?
6. Should schools, universities and workplaces require some tasks to be done without AI? If so, which ones and why?
7. Overall, does AI make us more or less intelligent—or does it all come down to how we use it?