The AI Power Formula

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Artificial Intelligence (AI) models, like ChatGPT, Gemini, and Copilot, are becoming more and more present in many people's daily activities. Today, they're used as alternatives to internet search engines, to answer all kinds of questions, generate ideas, provide advice, improve writing, and help with homework and school projects, among many other functions. In China, for example, some judges are already drafting sentences in a matter of seconds thanks to DeepSeek.

If you had said this was possible twenty years ago, many probably wouldn't have believed it. The truth is, it was possible, but back then the processing would have taken hundreds of years, while today it's done in milliseconds. AI is currently possible thanks to its power, which can be summarized in the following formula:

AI Power = Algorithm Power x Computing Power

Getting exact or totally precise results can require several decades of computing, even for very simple requests. The great minds of mathematics and computer science discovered that it was possible to design algorithms capable of multiplying power to get results faster, sacrificing only a minimal amount of precision. Imagine, for example, that each improvement to the algorithm doubled that power and reduced precision by just 0.1%. Sounds wonderful, right? But it's not necessarily so.

For AI to be functional, it's very likely that the algorithms have had to be powered up billions of times, which means the reduction in precision is no longer so small. These problems are known as AI "hallucinations." So, have we reached a limit in the power of AI? The answer is clearly no. You just have to look at the second part of the formula: computing power.

AI is possible thanks to the growth of computing power, driven by GPUs (graphics processing units) developed by Nvidia. These semiconductors are the brains of AI and are so valuable that the company's worth went from $150 billion at the end of 2019 to $4.3 trillion in mid-2025, an increase of 3,000% in just six years.

The economic value of AI is enormous, and the big tech companies know it. As of today, OpenAI, the creator of ChatGPT, is a private company valued at $500 billion. Microsoft, with a market capitalization of $3.8 trillion, has gained huge benefits from its alliance with OpenAI, and it has the exclusive right to distribute ChatGPT through its Azure cloud platform until 2030. In addition, it's developing its own AI, called Copilot. Google, with a stock market value of $2.4 trillion, is doing the same with Gemini.

Meta, the owner of Facebook and WhatsApp and valued at $1.9 trillion, doesn't want to fall behind and is "stealing" talent from other companies with personal contracts worth hundreds of millions of dollars. This aggressive hiring strategy, typical of signing superstars in sports, has disrupted the employment structure of Silicon Valley.

The AI power formula is a simple equation that will define which competitor will win this race, in which OpenAI is in the lead. The best algorithms —those with the most power and the least loss of precision— have become today's most valuable industrial secrets. The countries or companies that have the greatest computing capacities and the most advanced chips will be the ones that succeed in developing the most powerful artificial intelligence. ■

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