



Dalí. The Persistence Of Memory.

Neuro-plasticity and General Artificial Intelligence



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The brain can physically remodel itself.

A few years ago, [Wired published an article](#) that gave me pause. In a nutshell, it was describing how — despite what we had thought — the brain can be “reconfigured”. It was illustrated by the story of a young boy whose brain had been damaged after an accident, to a point where the part of the brain associated to speech had to be removed — leaving him unable to speak. Until, that is, he went through a specific “brain-fitness training program” that ended up re-configuring his brain: the speech ability had moved to a different part of the brain.

In and of itself, it was fascinating. But now that I spend more time working in AI, this story came back to me.

What does it mean for AI?

There are different schools of thought, but if you believe we will reach [general artificial intelligence](#) by being able to reproduce the human brain in a computer, this notion of neuro-plasticity is exciting.

The brain is an extremely complex machine from a physiological standpoint with hundreds of trillions of connections. But the idea of reproducing it seems all the more daunting if you are to believe that each part of the brain is independent from the others, hard wired in a certain way, with a certain “algorithm” running in each individual section. It suggests that reproducing the brain means understanding not just one, but many “algorithms” and architectures.

Neuro-plasticity changes this perspective. Since a certain function can be reconfigured to run in a different part of the brain than the original one, potentially non biologically identical, it seems to suggest that **it might actually be just one “master” algorithm driving everything in our head.**

Of course it does not mean it's an easier algorithm to crack. But the perspective is fascinating.

I am the CTO and co-founder (with [Marie Outtier](#)) of [Aiden.ai](#) where we are building a virtual colleague for marketers. If you think this article is interesting, please don't hesitate to recommend it by clicking the [button below](#).

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