

Deep learning: When artificial and human intelligence come together

[Computational neuroscientist Terrence] Sejnowski, a pioneer in the study of learning algorithms, is the author of [The Deep Learning Revolution](#) (out next week from MIT Press). He argues that the [hype about killer AI](#) or [robots making us obsolete](#) ignores exciting possibilities happening in the fields of computer science and neuroscience, and what can happen when artificial intelligence meets human intelligence.

The Verge spoke to Sejnowski about how “deep learning” suddenly became everywhere, what it can and cannot do, and the problem of hype.

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[Verge:] Deep learning is inspired by the brain. So how do these fields — computer science and neuroscience — work together? [Sejnowski:] The inspiration for deep learning really comes from neuroscience. Look at the most successful deep learning networks. That's [convolutional neural networks](#), or CNNs, developed by [Yann LeCun](#).

If you look at the architecture of the CNNs, it's not just lots of units, they're connected in a fundamental way that mirrors the brain.

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Yann didn't slavishly try to duplicate the cortex. He tried many different variations, but the ones he converged onto were the ones that nature converged onto. This is an important observation. The convergence of nature and AI has a lot to teach us and there's much farther to go.

Read full, original post: [A pioneering scientist explains 'deep learning'](#)