

Re: How do the brain neurons compute?

Re: How do the brain neurons compute?

Source: <http://sci.tech-archive.net/Archive/sci.physics/2007-11/msg00268.html>

- *From:* "Androcles" <Engineer@xxxxxxxxxxxxxxxxxx>
 - *Date:* Sun, 04 Nov 2007 16:52:14 GMT
-

<srp@xxxxxxxxxxxx> wrote in message
<news:1194191166.262878.56440@xx>
On 4 nov, 09:24, "Androcles" <Engin...@xxxxxxxxxxxxxxxxxx> wrote:

<s...@xxxxxxxxxxxx> wrote in message

<news:1194183884.401753.9650@xx>
On 3 nov, 18:00, Tenifer <tensorsur...@xxxxxxxxxx> wrote:

On Nov 4, 2:48 am, s...@xxxxxxxxxxxx wrote:

On 1 nov, 18:57, Tenifer <tensorsur...@xxxxxxxxxx> wrote:

What kind of algorithm do our brain neurons use? How do they compute to make us aware and produce our mind?

Neurologists chose their profession because they are poor in math.

Therefore only physicists excelling in mathematical algorithm can figure out how the brain compute.

Anyone got an theory or mathematical idea

Re: How do the brain neurons compute?

how the brain neurons
compute (or what kind of algorithm it use)?

You should look up the work of Hebb in the 1940's. He completely solved how neural networks correlate data. No algorithm required except for simulating neural nets on linear computers.

The seat of awareness has long been established as being the néocortex (a 6-layer neural network). You would have to dig into neurophysiology archive to learn about this. Starting with Pavlov, many others explored the various aspects. Look up Eccles for references to most of them. Chauchard in the 1940's 1950's finished the job.

You could get hold of "On Intelligenece" by Jeff Hawkins. He rediscovered much of this and is good at explaining.

A pity that most in the pertaining disciplines don't even know that all of this has been understood long ago.

No integrated refs in lectures for the past half century ensured that these discoveries remained sleeping in dusty archives.

André Michaud

So it is theoretically possible to build a self-aware computer or android.

This also has been explored, and no. It will never be possible because self-awareness requires life (sentience) to be involved from the getgo so the network can chose by itself what is good and what is bad for it.

Re: How do the brain neurons compute?

Training real artificial neural nets with more than 1 layer to do anything useful is extremely difficult since they can't be programmed. On top of being technically difficult to build, they have to be trained and guided for hours to be conditioned into giving the correct answer or providing the correct reaction for each set of input data.

I wonder when will we have these silicon sentient beings joining with us in the planet. Do you know of folks seriously building this now?

Some have tried and wasted their time. Can't be done.

André Michaud

It is theoretically possible to build a self-aware computer, proven by "I think, therefore I am" -- Rene DesCartes.

Old Rene was sentient to start with before he could work through the maze and get to that conclusion.

I for one won't be on alert in case one taps me on the shoulder from behind as he utters "See ! Here I am. You were wrong."

André Michaud

Nature has succeeded where man (a self-aware computer) has (so far) failed. But man has only just begun trying, it took Nature billions of years of trial and error. The issue isn't whether man will succeed or not, but whether it is possible to succeed. And it is. "Can't be done" applies to da Vinci's helicopter, which cannot fly as designed. The underlying principle behind it does fly, though.

I for one WILL be on alert in case one taps me on the shoulder from behind as it utters "See ! Here I am. You were right, André is asleep."
Never underestimate the power of the human mind, André.
If I replaced a single neuron in my brain with an electronic circuit that is FUNCTIONALLY identical and interfaces with the rest (even if not physically identical), then I would be unaware of the change. Extend that concept to all my neurons and I can become eternal. And a god.

.