

NOTEWORTHY, SOFTWARE

# ARE WE REALLY THINKING AT 10 BITS/S?

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There is a [funny paper at arXiv](#), that is now published in Neurology. It claims to have found a

neural conundrum behind the slowness of human behavior. The information throughput of a human being is about 10 bits/s. In comparison, our sensory systems gather data at  $\sim 10^9$  bits/s. The stark contrast between these numbers remains unexplained and touches on fundamental aspects of brain function: What neural substrate sets this speed limit on the pace of our existence? Why does the brain need billions of neurons to process 10 bits/s? Why can we only think about one thing at a time?

If there are really two brains, an “outer” brain with fast high-dimensional sensory and motor signals and an “inner” brain that does the processing? My inner brain says this is a huge speculation.

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