



Epsilon Theory

THE NARRATIVE

DOWNTHE RABBIT HOLE BY BEN HUNT

AI Hedge Funds, Corporate Inequality & Microdosing LSD

Allow me to reintroduce Neville Crawley.

Neville Crawley is not only an *Epsilon Theory* fellow traveler and recent podcast guest, he's also a brilliant technologist. As part of the ET 2.0 expanded sandbox, I've asked Neville to write a weekly-ish "Down the Rabbit Hole" column with his observations on what he calls Big Compute, I call non-human intelligences, and the rest of the world calls AI. This is the biggest revolution in markets and the world today.

Neville will be publishing under his own byline in the near future — his commentary continues below with occasional editor's notes (in bold) from yours truly.

Enjoy.

-Ben

Machines and suchlike

DARPA has produced a 15 minute AI explainer [video](#). A fair review: "*Artificial intelligence is grossly misunderstood. It's a rare clear-eyed look into the guts of AI that's also simple enough for most non-technical folks to follow. It's dry, but IRL computer science is pretty dry.*" Well worth watching for orientation on where we are — and where we are not — with AI today.

In case you are interested in 'AI hedge funds' and haven't come across them, [Sentient](#) should be on your radar. And [Walnut Algorithms](#), too. They look to be taking quite different AI approaches, but at

some point, presumably, AI trading will become a recognized category. Interesting that the Walnut article asserts — via EurekaHedge — that "there are at least 23 'AI Hedge Funds' with 12 actively trading". Hmm ...

[Ed, note — double hmm ... present company excepted, there's a lot less than meets the eye here. IMO.]

On the topic of **Big Compute**, I'm a big believer in the near-term opportunity of usefully incorporating quantum compute into live systems for certain tasks within the next couple of years and so opening up practical solutions to whole new classes of previously intractable problems. Nice explanation of 'What Makes Quantum Computers Powerful Problem Solvers' [here](#).

[Ed. note — for a certain class of problems (network comparisons, for example) which just happen to be core to Narrative and mass sentiment analysis, the power of quantum computing versus non-quantum computing is the power of 2^n versus n^2 . Do the math.]

Quick overview paper on Julia programming language [here](#). Frankly, I've never come across Julia (that I know of) in the wild out here on the west coast, but I see the attraction for folks coming from a Matlab-type background and where 'prototype research' and 'production engineering' are not cleanly split. Julia seems, to some extent, to be targeting trading-type 'quants', which makes sense.

Paper overview: *"The innovation of Julia is that it addresses the need to easily create new numerical algorithms while still executing fast. Julia's creators noted that, before Julia, programmers would typically develop their algorithms in MATLAB, R or Python, and then re-code the algorithms into C or FORTRAN for production speed. Obviously, this slows the speed of developing usable new algorithms for numerical applications. In testing of seven basic algorithms, Julia is impressively 20 times faster than Python, 100 times faster than R, 93 times faster than MATLAB, and 1.5 times faster than FORTRAN. Julia puts high-performance computing into the hands of financial quants and scientists, and frees them from having to know the intricacies of high-speed computer science"*. Julia Computing website link [here](#).

Humans and suchlike

This **HBR** article on 'Corporation in the Age of Inequality' is, in itself, pretty flabby, but the TLDR soundbite version is compelling: *"The real engine fueling rising income inequality is "firm inequality". In an increasingly ... winner-take-most economy the ... most-skilled employees cluster inside the most successful companies, their incomes rising dramatically compared with those of outsiders."* On a micro-level I think we are seeing an acceleration of this within technology-driven firms (both companies and funds).

[Ed. note — love TLDR. It's what every other ZeroHedge commentariat writer says about *Epsilon Theory!*]

A great — if nauseatingly 'rah rah' — recent book with cutting-edge thinking on getting your company's humans to be your moat is: **Stealing Fire: How Silicon Valley, the Navy SEALS, and Maverick Scientists Are Revolutionizing the Way We Live and Work**. Warning: Microdosing hallucinogens and going to Burning Man are strongly advocated!

Finally, on the human-side, I have been thinking a lot about 'talent arbitrage' for advanced machine learning talent (i.e., how to not to slug it out with Google, Facebook et al. in the Bay Area for every

hire) and went on a bit of world-tour to various talent markets over the past couple of months. My informal perspective: **Finland**, parts of **Canada** and Oxford (UK) are the best markets in the world right now—really good talent that have been way less picked-over. Does bad weather and high taxes give rise to high quality AI talent pools? Kind of, in a way, probably.

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