

/dev/random

Machine Learning Disability

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Machine learning is a hot topic currently, and for good reason: machines are pretty stupid. Maybe not all machines, but the ones around my house certainly fall well into sub-genius territory. Take, for instance, my aluminum can crusher. It really only has one job: using human-powered compression, reduce an empty aluminum vessel that can hold 12 ounces into one with a capacity of perhaps 1/30th that volume. Gravity then induces that flattened carcass to drop through an appropriately-sized slot into a waiting receptacle. Elaborate, it is not.

Yet as much as 5% of the time, the resulting crumpled disk is sufficiently misshapen that it remains in the chamber, mocking me and gravity in concert. This is not an acceptable failure rate for a mechanism barely above the wheel in complexity. Oh, there are some who in their hateful ignorance will claim operator error, but I snap my fingers in their puffy faces. All I do is pull a handle—what’s to err? It’s just mechanical spite, if you ask me.

Because I’m, like, really old now, I have vivid memories of one of the more classic stupid machines of yesteryear: the eight-track tape player. Heck, let’s lump the eight-track tape itself in there too while we’re at it. Basically, an eight-track tape (and this goes for some early computer tapes, as far as I care) is a huge Gordian knot that sort of spirals in around itself on a spool mounted in a rectangular cartridge. It is designed specifically to be nearly impossible to open without incurring damage and fifteen minutes in the penalty box.

The innermost edge is where the tape pops out of the spiral and scrapes its way back across the top of the coil to some rollers that hold it in position for the magnetic read heads in the player. The whole thing looks like it was designed to work exactly once, which isn’t too far off the mark. I know this mechanism intimately because, being a foolhardy manner of fellow, I made a little money in high school unjamming these things for my music-loving friends. It was not a pastime for the faint of heart or unsteady of hand.

The tapes themselves were already prone to spontaneous breakage, but just to make certain any music that managed to make it through was not enjoyed without significant additional risk, the industry provided each user with a machine winched up from the worst neighborhood of the Hadean realm. The eight-track “player” fed the staggeringly bad engineering of the tape cartridge through the guts of a repurposed pasta machine in the decidedly optimistic hope that whatever music might be encoded on the tape somehow leaked out into the amplifier before the self-destruct sequence was complete.

I offer up the eight-track as a machine learning bullet point mostly because it effectively taught anyone who came into contact with said machine to avoid it. While a couple of frustrating hours spent fishing mangled tape from around a variety of rollers accessible only via a narrow slot guarded by a spring-loaded door could mar even the sunniest of dispositions, the lessons thus imparted stuck around for life. Relying on such a system for one’s music is hardly my idea of La Vida Bella.

There are in fact multiple areas of domestic life where I think machine learning might prove beneficial. My home security system leaps to mind. For some months I was plagued with an alarm that would go off for no readily apparent reason, almost always in the dead of night. A technician would be dispatched, certify that absolutely nothing was amiss with the wiring or electronics, and almost before he turned the street corner after departing the blaring siren would sound again.

When conventional technical solutions failed to present themselves, I began to suspect something supernatural was at work here. After all, if I'm going to be faced with an intractable technical issue I may as well be entertained by consideration of its origin, am I right? Of course I am. The problem with the otherworldly causation hypothesis is that this is a fairly new house and hasn't had time to build up any spectral inventory to speak of. Not much has passed to the other side here, apart from one cat and a host of houseplants my wife either inundated mercilessly or neglected to water at all.

Proceeding on the assumption that cats in the afterlife have no more initiative than they did while earthbound, my alarm system is not possessed by a feline spirit. Our recently departed Fenchurch simply wouldn't bother. Oh, she might bat some ghostly creepy-crawly in front of a motion sensor from time to time between celestial naps, but I can't see her intentionally

messing with the Master Bedroom Door contacts on a regular basis unless their ectoplasmic manifestation happens to resemble feathers dangling from strings.

My alarm system could therefore probably benefit from some machine learning. But are the eponymous machines undertaking said learning, or meting it out? I'm not clear on this point. I suppose either situation would be an improvement. Sooner or later the machines are going to cut humanity completely out of the educational cycle. We'll have virtual machines going door-to-door (or node-to-node) offering tutorial services for a reasonable fee payable in whatever currency machines find pleasant to exchange (CPU cycles, maybe, or little bags of qubits).

There's been a lot of fairly hysterical speculation over the past few decades on when the digital singularity will take place and the dire consequences of said event for the human race. Some say the machines will assume control and immediately turn on us meat sacks, regarding us as no better than ants invading the picnic of existence. Others suggest that our machine overlords will be benevolent, granting humanity a largely unfettered life so long as we don't overstep our bounds and interfere with their ascendancy.

Even if I live to see that day, I'll be too old to care one way or the other. I'll just sit on the porch waving my gnarled fist defiantly and yelling at those damn bots to stay off my data.

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