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/dev/random

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I THINK THE CHIEF PROBLEM WITH IPV6, other than the widespread allergy people seem to have toward adopting it, is that the overall implementation just isn't ambitious enough. There's no reason to stop with simply assigning unique IP addresses to all the network-capable machines on the planet—with 128 bits of address space we could enzymatically splice IP headers into every gene of every human DNA molecule in existence. Never again will you be bored in a hotel: With your laptop and wireless bio-interface you can experience endless hours of entertainment, changing your eye color from brown to blue at will, tweaking your vocal chords to sound like Cyndi Lauper inhaling helium, or growing hobbit-hair on your feet. Forget dieting and exercise—lose weight the easy way by cranking that metabolism off the chart and then watching the pounds just melt right away. Be sure to call down to the front desk first for a plastic tarp to make cleanup easier.

Combined with the latest in GPS technology, genetic IP labeling could revolutionize the dating scene. Punch in the attributes you'd like in your ideal mate, overlay the resulting genome map on a street map, and start scanning. You could use the cell phone network to pinpoint your best-fit candidates in a matter of minutes, ranked according to degree of genetic compatibility. The commercial spin-off possibilities are myriad: *Google Birth* if you're looking to reproduce; *Google Mirth* if you want someone with a sense of humor; *Google Worth* if you crave a well-heeled mate. Search Engines might have to be expanded to Search and Rescue Engines.

I see, in my dilithium crystal ball, political parties, religious cults, or professional/trade associations based on genomic traits. Advertising will get even more precisely targeted when some hapless schmuck strolls up to the mall directory and the genome scanalyzer hidden deep inside launches into a spiel tailored to his personal physical shortcomings. Randomly shotgunned ads for Viagra and Cialis will seem quaint and harmless compared with the ruthless efficiency of a machine that knows not only what's wrong with you right now but what might be crouched around the corner patiently waiting to spring in a decade or three.

There will be a whole new exciting avenue for diversion opening up when the horrors people can look forward to in later life as a result of their chromosomal baggage begin to pop up in unexpected places and say "boo" at

them. Consider those little self-diagnosis chairs at the neighborhood pharmacy, for example. Check your blood pressure, measure your heart rate, and plan for genetic doom while-u-wait, splashed for your convenience on the wide-screen, high-definition plasma suspended over the prophylactic aisle and brought to you by the makers of those little blue capsules you take to stay regular. This innovation in pharmaceutical marketing would represent the final annihilation of what few shreds of personal privacy still remain, but the way we're going that's inevitable no matter what technologies we decide to embrace.

Life insurance companies will, of course, adore this new development. They can scan you as you walk in the door and have a rate quote (or more likely a declination of coverage) ready by the time you reach the agent's desk. Those people who do manage to meet the minimum standards for genetic soundness can expect to be chased down in the street by policy pushers eager to sign them up. Employers and the military will be able to customize the health insurance packages of recruits to exclude any genetic surprises that might develop into expensive but now inarguably preexisting conditions at some future stage. It could be argued, in fact, that virtually all human maladies are the result of genetics in one form or another. No matter where you go, where are you?

We might want to put in a little overtime in the security arena if we decide to head down this path, however. I'm thinking that it wouldn't be too pleasant if black hats figured out a way to crack the Direct On-Demand Genetic Expression Encryption algorithm. I can envision all sorts of possible attacks: mRNA-in-the-middle, cross-linkage scripting, STS-injection, denial of sequence, you name it. If you're handy with Genetisploit, you might even be able to make everyone in the hotel WiFi cloud sprout tiny horns from their foreheads overnight: 802.666.

Not that all who hack thusly will be content with mere whimsy, alas. We'll need more robust authentication to deal with these rascals, methinks: Maybe upgrade the current multifactor paradigm to *something you are, something you have, something you know, and something you secrete*. That may not halt potential attackers totally, but they'll at least have to slow down long enough to towel off.

If only we could identify the "terrorism" gene and suppress it universally, this whole "obsoleting the concept of privacy and ignoring the Constitution" fad might ooze back into the slime-saturated crack of damnation from whence it slithered. My innate human talent for pattern recognition suggests that we'd just find some other justification for carrying the process to its logical conclusion, though. Once set into motion, bloated bureaucracies (if I may be excused the redundancy) take "juggernaut" to a whole new level. Inertia, thy name is government.

I fully expect our genes will one day just cut us out of the loop entirely and communicate directly with other genes. That's pretty much where evolution seems to be headed, anyway, as we've never been particularly reliable or efficient as recombinance vectors.

Homo sapiens: the pinnacle of terrestrial evolution, or merely a deep gouge in the fossil record? You decide.