

Gap Year

## One

The Chinese invaded on a Monday, at 9:15 in the morning. I remember that clearly, because I was in the kitchen, trying to get a cup of coffee.

Where I worked, each person's access card was tracked so that the Department of Human Resources knew whether you had come to work on time. However, unlike some employers, mine had not bothered to implement any sort of location tracking once you were in the office. (I had friends whose companies knew where they were in the office, tracking every door they'd walked through and if they had been spending too long in the lavatory when they should have been at their desks, being productive in a company-approved way. The slacker who'd engineered our employee tracking system had assumed that once you were in the office, you were working, and had been too lazy to countenance the idea that people could not work inside company buildings. Or that unnamed hero of incompetence had been one of us, protecting us from harmful oversight.)

On Mondays, I was always hungover, just about capable of getting to work, but not capable of doing anything that resembled work until at least mid morning. Being hungover did put me into a more docile state: I didn't have the energy to get aggravated by anything, which was a blessing, because otherwise I wouldn't have been able to cope with Phelps.

Phelps was a tall, skinny man with powdery, slightly translucent skin and a grating voice that was always about half an octave and ten decibels too high. His role in the organization was to complain about the organization, or, at least, he was never observed doing anything else. Like a pallid vampire bat, he'd hang around the kitchen, waiting for somebody to complain to. I'd forgotten to replenish the beans for the USB-powered espresso machine on my desk since the previous Friday, which meant I had to put up with him while I groped around the kitchen, seeking recaffeination.

"I suppose you've heard about the Chinese" Phelps started. I was caught off guard, having found the coffee maker to be completely empty.

"Yes," I said. "They're a nation of about 1.3 billion people, famous for chow mein and having the only manmade structure visible from space." (I know that neither of those 'facts' is true, I did major in Chinese Studies. But I figured playing dumb with Phelps might encourage him to truncate his complaint and go to batten on to another victim.) I began opening cupboards, looking for coffee powder to load into the machine.

"I'm not talking about noodles," Phelps whined. No extra note of annoyance crept into his voice, because he always sounded annoyed. "I'm talking about the tip."

I was sufficiently befuddled that for a moment I thought Phelps was enraged about gratuities being paid by Chinese people to him, as if he'd been moonlighting as a waiter somewhere and wasn't getting his 15% from the customers. Then I remembered our latest, greatest TLA.

"The TIP?" I asked. "What about the TIP?"

As a general rule, I tried to never get into a discussion with Phelps about anything. Feigning ignorance was usually the most efficient way to bring these conversations to a close. But the TIP, the Total Information Project, was too big, too important a thing to pretend ignorance about. Phelps pounced.

"It's going to China. The TIP is going to China, and so are all those jobs."

"So?"

"What do you mean, 'so?' You mark my words, this is just the tip of the iceberg."

I got the feeling Phelps had been waiting weeks to say that, just circling like a vulture, waiting for the right disaster to describe in this way. As my will to live ebbed away, I wondered why he couldn't have complained about 'just putting the tip in', or 'the tip was too expensive', or how this was an example of 'tip for tat'. Deep down, I felt guilty: I had been on the naming committee that had come up with Total Information Project, so I was at least partly to blame for this.

I was in a bad mood, because there was no coffee left in any of cupboards, just thousands of polystyrene cups, and my hangover meant I had low blood sugar, and because Phelps was talking to me, so I made the unforced error of giving in and reacting to Phelps again.

"It doesn't matter, because TIP doesn't do anything useful. Do you really think that a bunch of people in Shenzhen not doing anything useful is any different to a bunch of people here wasting their lives and their time?"

"Shenzhen? How come you know it's going to move to Shenzhen?"

"Shenzhen, Chongqing, Asslick in Wuhan, it doesn't matter where TIP goes, Tim, because it's not doing anything when it gets there."

"But, but," he began to splutter, "the security implications ..." (When Phelps got cross, his face reddened, he'd start to stutter and his adam's apple bobbed up and down. When he was inflicted on somebody else and I was a disinterested observer, I found this quite amusing, but when you were a cup of coffee and three pints of beer below par, it's harder to take.)

"Security implications? Don't you mean job security? You worried that just because they're going to outsource a bunch of people who don't do anything all day, that your job is the next one to be going off to China?"

"How dare you! If you can't see how important it is what we do, and how we can't just let anyone else do it, you have no right to be working here."

"Whatever, Tim," I said, giving up the search for coffee in the face of a phalanx of cups, buttressed by packets of artificial sweetener and those skinny little plastic drink stirrers that nobody ever uses. "TIP may be going away, but I don't think anybody in China wants to take away our way of life just yet."

I pulled my head out of the cupboard, and at that moment the Chinese appeared.

## Two

Let me back up a minute and introduce myself properly. And, as with any proper introduction, let me start by telling you something about yourself.

When you went to the office, I know you spent most of the morning pretending to be busy while you were actually reading all the updates on your Facebook news feed. Relax, I was doing the same. The only difference was, when I was reading all the updates on your Facebook news feed, I was taking notes.

People have been worried for years about how the government and corporations were collecting so much of their personal data. Your political affiliations, your medical conditions, those suspicious sites you read to give yourself some sort of post-revolutionary thrill. They shouldn't have worried. If they'd known the people looking at the data were like me. If Big Brother is lazy, hungover and looking at porn, he really doesn't have that much time to check out your posts on Facebook.

Or your grocery lists.

Or your medical records. No, that back pain you get when you strain too hard on the toilet, we *really* weren't interested. Looking at data was our job, and like any other job, after a while, it was just a job.

I don't want you to think we were stupid. I graduated from MIT, I speak four different languages, I can recite pi to fifty decimal places. The woman who sits to the right of me had two doctorates and fifteen patents, and the woman on the left of me would have more, but you aren't allowed to patent state secrets. But in any closed system, entropy naturally increases, and in the world of work, the time and effort spend avoiding productive tasks is always going up, until the amount of time you dedicate to actually doing your job decays to absolute zero.

The problem is that once your government has thrown a substantial proportion of your taxes into solving problems by reading everybody's email, it's very hard to stop. We weren't addicted to it; it wasn't fun, by any stretch of the imagination, but if we had closed down, we'd have had to admit we'd been wasting all that money, all that time.

And it never got easier. Some dickhead would come up with a great idea for Running Government More Like A Business, which meant we had stretch goals and requirements to demonstrate year on year growth in the number of malfeasants we caught by mining IRC conversations. Have you any idea how hard it is to prove you've successfully prevented 20% more atrocities than you prevented last year? No, of course you don't, I've read all your conversations with your nearest and dearest, and you've never mentioned it.

Oh, you only discuss that sort of thing offline? Well, have you disabled the microphone buried in every television, sandwich toaster and fridge freezer since 1962?

I'm kidding.

Aren't I?

But I didn't spend all day, everyday, just looking at your particular inbox. Honestly, you're not that important. My main area of responsibility was supervising DA-NBOS, the Distributed Anti Natural Language Programming Broad Obfuscation Strategies function. Seriously, you have nothing to fear from us. We couldn't even come up with pronounceable abbreviations most of the time.

DA-NBOS was all the fault of some dickhead. Worse, not one of our dickheads. Sorry, not one of *your* dickheads (we are your taxpayers' dollars at work). Some guy with tinfoil headgear came up with SquidInk, and DA-NBOS was what we had to use to chew through the mess he'd made.

Maybe you use SquidInk. Maybe half your friends are using it and you don't realise, you just think they have more exciting lives than you. SquidInk was built to raise the amount of entropy in the social network so high that the network itself would become useless. Every time you were tagged in a photo, or checked in somewhere, or anyone did anything else that might allow you to be identified by anyone else, SquidInk would automatically tag you in three random photos and check you in to two other locations. Pretty soon, there'd be a miasma of places you might or might not have been, and a soup of photos of babies, videos of cats and obscene cartoons that might possibly have you in them.

That was SquidInk 1.0, which was pretty easy to defeat. If you randomise geographic locations completely, it is fairly easy to distinguish the noise from the signal. As there's a small delay between every genuine photo tag and the follow up ones, we could also clean out the trash that way. So 2.0 started preemptive tagging, and checking you into places that were plausibly close to where you were without being good enough to track your exact location. Still fairly easy to defeat.

3.0 was when they started teaching a distributed network of bots how to speak, using Facebook and Twitter updates as the initial corpus, and including Youtube comments to simulate anger. All of a sudden every SquidInk user had fifteen extra fake friends, all having conversations with one another, some of them aggressive Brazilian teenagers, some of them baffled French pensioners, almost always the Trojan Room coffee machine, newly sentient and just as angry as the Brazilians, all inviting the user to parties that didn't exist, deciding to block him, demanding help with crapped-out old

versions of Farmville, arguing among themselves, producing more turds in the once clean punchbowl of data we were meant to be ingesting.

4.0 - every SquidInk account became a micropublisher. That meant they would start selling advertising on the feeds of the non-existent people that floated around each user. They were probably building *fake fake* friends by now, ad infinitum, each one of these another shonky recipient for carefully targetted display advertising that somebody was paying for. All of a sudden, SquidInk was a profit centre for somebody, scraps and crumbs of cash flitting across the network.

But that wasn't designed to make anyone rich. The hippy scum behind SquidInk (never trust a hippy, even if it's a chimerical distributed hippy that you've just made up to have someone to blame for all of this) weren't in it for the money. The money was just so they could generate plausibly fake transaction histories for their users, or their users' users. Real businesses, fake businesses, real coffee shops run by SquidInk bots with voice analysis and Paypal accounts, it didn't really matter. Suddenly, there was a whole lot of stuff you may, or may not have purchased, that may, or may not have existed in the first place.

5.0 plugged into Grindr, Match.com and SexyAsianBabes and constructed baroque romantic lives for you, relationships with weird half-lives like yellowcake uranium. And on and on and on.

There was a persistent rumour that there wasn't a distributed conspiracy of people trying to ruin social networking for us; it was this one guy, socially awkward, didn't like allowing people to befriend him on Facebook, but too shy to turn them down, had instead erected this fake account to decoy all his non-friends with, but had needed just enough activity on the fake account for it to be plausible, instead of just an empty sockpuppet. (That would be a sock, wouldn't it?) Then all this NLP hacking had metastasised, and he'd turned on his computer a day later to find he had more friends than the rest of the world, and they were all arguing with each other. But that would be ridiculous, wouldn't it?

So DA-NBOS was a collection of geospatial analysis, reverse-NLP n-gram analysis, and ersatz machine learning, fuelled by incandescent rage and annoyance. It's bad enough when your job is sifting through cat pictures in search of terrorists and their steganographic messaging protocols, before an infinite number of smartass monkeys start throwing turds at you. And it didn't even have a good name. SquidInk at least sounds cool to the kind of idiot who likes words with random caPitalisation. "Da N-Boss"? "Dan Boss"? "Delta Alpha November Bravo Oscar Sierra"? Give me a break. I tried to get it called Sperm Whale (because they eat squid, *obviously*) but the one time I

didn't suggest a joke name, everyone else thought I had, and so DA-NBOS, and so I regret every minute I spend at my computer.