I wrote the outline for TRANSMIT during a meeting of the Naperville Writers Group while considering the challenges of an old-fashioned 'invaders from Mars' scenario. This seemed far more likely, and when I was done I saw no reason to clog the core concept with 'characters' or 'setting.'

## TRANSMIT

When the aliens first made contact with humanity, it was no big deal.

You would expect the opposite, breaking news flashes and giant headlines and ruminative pieces in the *Wall Street Journal* about "Whither NATO In A Populated Cosmos?" But the first contact was only recognized as such years later, and by then the WSJ's subscription numbers had dwindled. The closest thing people saw to a news flash came on social media, and while it formed the bulk of people's 'consumed data,' they took it with a grain of salt when it said things about alien life, just like they did with news about famous people dying. Everyone had been burned before.

First it was just some astronomer on NPR saying "This signal from the Groombridge binaries is interestingly regular. Could be a new kind of pulsar!" Then the moderator jokingly suggested extraterrestrials and the guest chuckled, saying well, you never knew.

Next came news that a satellite had been equipped with a new tight-focus laser device to send pulses at the phenomenon's origin. A few people went berserk, but the doomsaying and violent sprees weren't really any worse than after a presidential election or environmental disaster. Some politicians decried the satellite as a boondoggle while scientists timidly replied that even if Groombridge wasn't sending a deliberate transmission, when the signals bounced back in twenty-two years it might provide some really compelling data.

It didn't take twenty-two years though. After only seventeen years the pattern's rhythm changed, and at first people didn't pay much attention, except for the scientists, who varied the light beam. Groombridge (or, as they now suspected, an object between that system and Earth) altered its wavelength in response. The number of angry conservative scientists who insisted that we might just be looking at a mirror and hearing an echo diminished each year, as the interactions between the broadcast Earth sent and the one it received became more and more sophisticated.

The belief that, no, this was for really real contact with intelligent life that could interact with us and communicate bubbled up in lieu of any official announcement. The pulse broadcast was detectable by handheld technology at that point, and the incoming signal couldn't be blocked. Scientists were talking about extraterrestrials matter-offactly with one another a good year before the first politician went on record acknowledging them.

That was a bit of a mess. Factions of every major religion went violently nuts, perceiving the existence of intelligent Others as a threat to their very foundation. By that point in the human timeline, home biochemistry made some nasty terrorism possible. But medicine was equally advanced, so it kind of balanced out.

When Chinese bureaucrats admitted what the world's wealthiest 20% had already heard on the grapevine—that the responses were coming faster, meaning that whatever we were talking to was getting nearer—there was an echoing spate of violence and hysteria, but it wasn't as bad. People had, at that point, been hearing theories about the signal being from ETI for over thirty years. Knowing that, at their current speed, they'd arrive in three more decades didn't seem so terribly alarming.

Once a communication protocol was established (and, incidentally, adopted by most major phone and data carriers within five years, because it was really efficient and clever) the aliens spent eight months explaining gravity. Once we attained a fundamental understanding of the causative gravity-bearing particle (of which there was only one for the whole universe, but it was the Planck length in the seventh or "quornd" dimension while being the exact size of the entire cosmos in the eighth dimension, "golmaum"), space travel became a lot more feasible. When we grasped how the gravity particle interacted with dimensionality, it provided instant communication over nigh-infinite distances.

Over the next four months, they asked us for a lot of clarifications. They'd been intercepting our TV and radio signals for decades and were terribly curious about what it all meant.

With instant back-and-forth, the aliens requested direct access to the human population—just a way to talk and send images, nothing menacing. No matter how advanced their science, the light-speed barrier for matter was hard and fast. They'd only exchange data. Transmit and receive. Why not? Who could object?

Every government forbade it, but it wasn't really up to them. The master class on gravity had been on the radio, easy for any corporation or university to receive and record. It was nonsense to 99% of the population, but the 1% with the physics chops to grasp it got to work on gravitic communications technology of their own. Once it was licensed for phones, a few hackers in Ecuador figured out how to get the aliens' real signal, not just the poky light beams and, soon, there were thousands of ways for human beings to speak to extraterrestrials in English, Spanish, Japanese, German, Mandarin, Esperanto, and Klingon. Humans began studying the alien trade jargon, Urd-Eck. Soon, Urd-Eck translation software was hugely popular.

They didn't look like much of anything, the aliens: Lumps, lenses, limbs, bilaterally symmetrical around an opaque pod of organs. They took some getting used to, but there was weirder stuff in the oceans. As time went by, they started looking more like people—they had the technology, certainly. Reconfiguring their bodies to make us more comfortable was a low hurdle.

Also, people started looking more like them. The world's nations had placed a moratorium on broadcasting human genetic data to aliens, but 'government' was looking more and more like backseat drivers trying to interrupt the conversation between their citizens and the rest of the galaxy. With standard gravitic bandwidth, it took only a couple minutes to give them the whole human genome. They initially said it was "odd" and then "interesting," and then "very nice." They sent the cure for breast cancer four days later.

The aliens had a thousand worlds in their 'data exchange collective,' hundreds of thousands of civilizations, each with their own music, stories and unique art forms. It was a cultural bonanza of unimaginable proportions, and what they wanted in exchange was dance videos, footage of cephalopods in the wild and explanations of Sant Eknath's role as a bridging figure in Marathi poetry. Everything alien was interesting to us, and everything about us fascinated them.

It wasn't all bad for organized authority, of course. The technology hit the global economy like espresso, and synchronized with a huge global peace dividend. The aliens had expressed dismay and some puzzlement over humanity's violent proclivities, and every world leader had fallen over him- or herself to insist that *they* were beyond such primitive methods, and were willing to promise peace eternal as long as the cold-fusion power plans and geriatric technologies kept flowing.

That was the amazing thing, to most people: An explosion in biological understanding and control. It went far beyond the treatment of illness and injury, or even the reversal of senescence and physical deterioration. Post-medical technologies let people reconfigure their bodies on a cellular level, with processes so refined they could be made temporary. A full-on sex change down to DNA took about a week, and could be tweaked to wear off after eight days. It came in pill form, just like higher intelligence, cancer resistance, improved balance and proprioception, not to mention final cures for acne and male-pattern baldness. The human form could be perfected in a month, with neither pain nor surgery.

To be honest though, by the time the aliens reached the edge of Sol's magnetosphere, and docked at the station we'd built to receive them, a lot of people had altered their bodies to resemble their guests. At first, it was just a few outliers and weirdos desperate for attention. Then a few diplomats who wanted "to make our new friends more comfortable." But given their vast cultural output, just about anyone could find an idol or a hero among the extraterrestrials. Adjusted for inflation, a complete physical transformation cost less than the down payment on a 1974 Dodge Dart. More and more people opted to be lumps, lenses, and limbs, bilaterally symmetrical around an opaque pod of organs. Why not? Everything was reversible.

So the aliens arrived and there was a huge party, all around the world and soon, all over the solar system. Two months after the first docking at the station, an Earth man married an alien that had become mainly female. (They'd been in daily communication

for over ten years at that point, and had it all planned out.) It was a Martian Synod Lutheran ceremony, the bride wore white, and the Catholic Church condemned it as an abomination, but their complaints went largely unheeded. People were too busy bioengineering extraterrestrial cuisine, sampling art forms to match newly-gained X-ray and gravitic senses, and head-banging to Led Zeppelin covers played on unworldly instruments.

Once the first human-alien hybrid was born, genetic alteration was so easy and commonplace that no one really noticed. The alien form (it turned out) was a compromise blend of seventeen 'originally evolved' species. As end-state genetic arrangements went, it was versatile, durable and powerful. If its aesthetics left anything to be desired (and by this point, a lot of people had been born with aliens on the TV and could readily tell you why this one was hot and that one was not) there were treatments that would install an instinctive copulatory desire along traditional (or alternative!) lines. They came in pill form.

It took a hundred years, between the first reply to the Groombridge signal and the wholesale incorporation of humanity into the alien culture. But after that century, 'mankind' was not only socially indistinguishable from the extraterrestrials, but physically the same as well.

The invasion was so gentle, no one ever noticed.