

Troubadour
by Charles Stross

Still living in the capital of Scotland, when not writing stories Charles Stross passes his time drinking real ale, counting the public surveillance cameras, and practicing time travel—into the future at a rate of 86,400 seconds per day. His latest story follows the further adventures of Manfred Macx, a character first introduced to us in “Lobsters” (June 2001).

* * * *

Manfred Macx is on the run. His grey-eyed fate is in hot pursuit, blundering after him through divorce court, chat room, and meetings of the International Monetary Emergency Fund: it's a merry dance he leads her. But Manfred isn't running away: he's discovered a mission. He's going to make a stand against the laws of economics in the ancient city of Rome. He's going to mount a concert for the spiritual machines: he's going to set the companies free, and break the Italian government.

In his shadow, his monster runs, keeping him company, never halting.

* * * *

Manfred enters Europe through an airport that's all twentieth-century chrome and ductwork, barbaric in its decaying nuclear-age splendor. He breezes through customs and walks down a long, echoing arrival hall, sampling the local media feeds. It's November, and, in a misplaced corporate search for seasonal cheer, the proprietors have come up with a final solution to the Christmas problem: a mass execution of plush Santas and elves. Bodies hang limply overhead every few meters, feet occasionally twitching in animatronic death, like a war crime perpetrated in a toy shop. Corporations don't understand mortality, Manfred thinks, as he passes a mother herding along her upset children. Their immortality is a drawback when dealing with the humans they graze on: they lack insight into one of the main factors that motivates the meat machines. He'll have to do something about that.

The free media channels here are as dense and richly self-referential as anything he's seen in America. The accent's different, though. Luton, London's fourth satellite airport, speaks with an annoyingly bumptious twang, like an Australian with a plum in its mouth. *Hello, stranger! Is that a brain in your pocket or are you just pleased to think me? Ping Watford Informatics for the latest in bluetooth modules and cheesy motion picture references.* He turns the corner and finds himself squeezed up against the wall between the baggage reclaim office and a crowd of drunken Belgian tractor-drag fans, while his left goggle is trying to urgently tell him something about the railway infrastructure of Columbia. The fans wear blue face paint and chant something that sounds ominously like the ancient British war-cry, *Wemberrrly, Wemberrrly*, and they're dragging a gigantic virtual tractor-totem through the webspace analogue of the arrivals hall. He takes the reclaim office instead.

As he enters the baggage reclaim zone, his jacket stiffens and his glasses dim: he can hear the lost souls of suitcases crying for their owners. The eerie keening sets his own accessories on edge with a sense of loss, and for a moment he's so spooked that he nearly shuts down the thalamic-limbic shunt interface that lets him feel their emotions. He's not in favor of emotions right now, with the messy divorce proceedings and the blood sacrifice Pam is trying to extract from him; he'd much rather emotions had never been invented. But he needs the maximum possible sensory bandwidth to keep in touch with the world, so now he feels it in his guts every time his footwear takes a shine to some Moldovan pyramid scheme. *Shut up*, he glyphs at his unruly herd of agents: *can't even hear myself think!*

"Hello sir, have a nice day, how may I be of service?" the yellow plastic suitcase on the counter says chirpily. It doesn't fool Manfred: he can see the Stalinist lines of control chaining it to the sinister, faceless cash register that lurks below the desk, agent of the British Airport Authority corporate bureaucracy. But that's okay. Only bags need fear for their freedom in here.

"Just looking," he mumbles. And it's true. Due to a not entirely accidental cryptographic routing feature embedded in an airline reservations server, his suitcase is on its way to Mombasa, where it will probably be pithed and resurrected in the service of some African cyber-Fagin. That's okay by Manfred—it only contains a statistically normal mixture of second-hand clothes and toiletries, and he only carries it to convince the airline passenger profiling expert systems that he isn't some sort of deviant or terrorist—but it leaves him with a gap in his inventory that he must fill before he leaves the EC zone. He needs to pick up a replacement suitcase so that he has as much luggage leaving the superpower as he had when he entered it: he doesn't want to be accused of trafficking in physical goods. At least, that's his cover story—and he's sticking to it.

There's a row of unclaimed bags in front of the counter, up for sale in the absence of their owner. Some of them are very battered, but among these is a rather good quality suitcase with integral induction-charged rollers and a keen sense of loyalty: exactly the same model as his old one. He polls it and sees not just Glonass, but a GPS tracker, a gazetteer the size of an old-time storage area network, and an iron determination to follow its owner as far as the gates of hell if necessary. Plus the right distinctive scratch on the lower left side of the case. "How much for just this one?" he asks the bellwether on the desk.

"Ninety euros," it says placidly.

Manfred sighs. "You can do better than that." In the time it takes them to settle on seventy-five, the Hang Sen index is down fourteen point one six points and NASDAQ climbs another two point one. "Deal." Manfred spits some virtual cash at the brutal face of the cash register and it unfetters the suitcase, unaware that Macx has paid a good bit more than seventy-five euros for the privilege of collecting this piece of baggage. Manfred bends down and faces the camera in its handle. "Manfred Macx," he says quietly. "Follow me." He feels the handle heat up as it

imprints on his fingerprints, digital and phenotypic. Then he turns and walks out of the slave market, his new luggage rolling at his heels.

* * * *

A short train journey later, Manfred checks into a hotel in Milton Keynes. He watches the sun set from his bedroom window, an occlusion of concrete cows blocking the horizon. The room is functional in an overly naturalistic kind of way, rattan and force-grown hardwood and hemp rugs concealing the support systems and concrete walls behind. He sits in a chair, gin and tonic at hand, absorbing the latest market news and grazing his multichannel feeds in parallel. His reputation is up 2 percent for no obvious reason today, he notices; odd, that. When he pokes at it he discovers that *everybody's* reputation—everybody, that is, who has a publicly traded reputation—is up a bit. It's as if the distributed internet reputation servers are feeling bullish about integrity. There's a global honesty bubble brewing.

Manfred frowns, then snaps his fingers. The suitcase rolls toward him. "Who do you belong to?" he asks.

"Manfred Macx," it replies, slightly bashfully.

"No, before me."

"I don't understand that question."

He sighs. "Open up."

Latches whirl and retract: the hard-shell lid rises toward him and he looks inside to confirm the contents.

The suitcase is full of noise.

* * * *

It's night in Milton Keynes, sunrise in Hong Kong. Moore's law rolls inexorably on, dragging humanity toward the uncertain future. The planets of the solar system have a combined mass of approximately 2×10^{27} kilograms. Around the world, laboring women produce forty-five thousand babies a day, representing 1023 MIPS of processing power. Also around the world, fab lines casually churn out thirty million microprocessors a day, representing 1023 MIPS. In another ten months, most of the MIPS being added to the solar system will be machine-hosted for the first time. About ten years after that, the solar system's installed processing power will nudge the critical 1 MIP per gram threshold. Beyond that, singularity: a vanishing point beyond which extrapolating progress becomes meaningless. The time remaining before the intelligence spike is now down to double-digit months....

Aineko curls on the pillow beside Manfred's head, purring softly as his owner dreams uneasily. The night outside is dark: vehicles operate on autopilot, running lights dipped to let the Milky Way shine down upon the sleeping city. Their quiet, fuel-cell powered engines do not trouble Manfred's sleep. The robot cat keeps

sleepless watch, alert for intruders: but there are none, save the whispering ghosts of Manfred's metacortex, feeding his dreams with their state vectors.

The metacortex—a distributed cloud of software agents that surrounds him in netspace—is as much a part of Manfred as the society of mind that occupies his skull; his thoughts migrate into it, spawning new agents to research new experiences, and at night they return to roost and share their knowledge.

Welcome to the early twenty-first century, human.

Manfred is dreaming of an alchemical marriage. She waits for him at the altar in a strapless black gown, the surgical instruments gleaming in her gloved hands. "This won't hurt a bit," she explains as she adjusts the straps. "I only want your genome; the extended phenotype can wait until ... later." Blood-red lips, licked: a kiss of steel, then she presents the income-tax bill. "You're quite extraordinary, you know: with a thousand more like you, we could abolish the budget deficit, bring back the cold war, let the good times roll again."

There's nothing accidental about this dream. As he experiences it, microelectrodes in his hypothalamus trigger sensitive neurons. Revulsion and shame flood him at the sight of her face, the sense of his vulnerability. Manfred's metacortex, in order to facilitate his divorce, is trying to decondition his strange love. It has been working on him for weeks, now—but still he craves her whiplash touch, the humiliation of his wife's control, the sense of helpless rage at her unpayable taxes, demanded with interest.

Aineko watches him from the pillow, purring continuously. Retractable claws knead the bedding, first one paw then the next. Aineko is full of the ancient feline wisdom she uploaded into him when mistress and master were exchanging data and bodily fluids. Aineko is more cat than robot these days. Aineko knows that Manfred is experiencing nameless neurasthenic agonies, but really doesn't give a shit about that as long as the power supply is clean and there are no intruders.

Aineko curls up and joins Manfred in sleep, dreaming of laser-guided mice.

* * * *

Manfred is jolted awake by the hotel room phone shrilling for attention.

"Hello?" he asks, fuzzily.

"Manfred Macx?" It's a human voice, with a gravelly east-coast accent.

"Yeah?" Manfred struggles to sit up. His mouth feels like the inside of a tomb and his eyes don't want to open.

"My name is Alan Glashwicz, of Smoot, Sedgwick Associates. Am I correct in thinking that you are the Manfred Macx who is a director of a company called, uh, agalamic dot holdings dot root dot one eight four dot ninety-seven dot A-for-able dot B-baker dot five, incorporated?"

“Uh.” Manfred blinks and rubs his eyes. “Hold on a moment.” When the retinal patterns fade he pulls on his glasses and powers them up. “Just a second now.” Browsers and menus ricochet through his sleep-laden eyes. “Can you repeat the company name?”

“Sure.” Glashwicz repeats himself patiently. He sounds as tired as Manfred feels.

“Um.” Manfred finds it, floating three tiers down an elaborate object hierarchy. It’s flashing for attention. There’s a priority interrupt, an incoming lawsuit that hasn’t propagated up the inheritance tree yet. He prods at the object with a property browser. “I’m afraid I’m not a director of that company, Mr. Glashwicz. I appear to be retained by it as a technical contractor with non-executive power, reporting to the president, but frankly this is the first time I’ve ever heard of this company. However, I can tell you who’s in charge if you want.”

“Yes?” The attorney sounds almost interested. Manfred figures it out; the guy’s in New Jersey, it must be about three in the morning over there.

Malice—revenge for waking him up—sharpens Manfred’s voice. “The president of agalmic.holdings.root.184.97.AB5 is agalmic.holdings.root.184.97.201. The secretary is agalmic.holdings.root.184.D5, and the chair is agalmic.holdings.root.184.E8.FF. All the shares are owned by those companies in equal measure, and I can tell you that their regulations are written in Python. Have a nice day, now!” He thumps the bedside phone control and sits up, yawning, then pushes the do-not-disturb button before it can interrupt again. After a moment, he stands up and stretches, then heads to the bathroom to brush his teeth, comb his hair, and figure out where the lawsuit originated and how a human being managed to get tangled up in his web of robot companies.

* * * *

While he’s having breakfast in the hotel restaurant, Manfred decides that he’s going to do something unusual for a change: he’s going to make himself temporarily rich. This is a change because Manfred’s normal profession is making other people rich. Manfred is an agalmic entrepreneur, a specialist in giving good ideas away for free to people who can do things with them. Manfred doesn’t believe in scarcity or zero-sum games or competition—his world is too fast and information-dense to accommodate primate hierarchy games. However, his current situation calls for him to do something radical: something like making himself a temporary billionaire so he can blow off his divorce settlement in an instant, an octopus escaping a predator by vanishing in a cloud of its own ink.

Pam is chasing him partially for ideological reasons—she wants to harness his powerhouse to the creaking bandwagon of her fedgov employers, an asset to the nation—but also because she feels that she owns him, and the last thing any self-respecting dom can tolerate is rejection by her slave. Pam is a born post-neoconservative, a member of the first generation to grow up after the close of

the American century. Driven by the need to fix the decaying federal system before it collapses under a mound of Medicare bills and decaying infrastructure, she's willing to use self-denial, entrapment, predatory mercantilism, dirty tricks, any tool that boosts the bottom line. She doesn't understand Manfred, jetting around the world on free airline passes, making strangers rich, somehow never needing money. She *can* see his listing on the reputation servers, hovering around thirty points above IBM: all the metrics of integrity, effectiveness, and goodwill value him above even that most fundamentalist of open-source computer companies. And she knows he craves her tough love, wants to give himself to her completely. So why is he running away?

The reason he's running away is entirely more ordinary. Their unborn daughter, frozen in liquid nitrogen, is an unimplanted ninety-six-hour-old blastula. Pam's bought into the whole Parents for Traditional Children parasite meme. PTC are germ-line recombination refuseniks: they refuse to have their children screened for fixable errors. If there's one thing that Manfred really *can't* cope with, it's the idea that nature knows best—even though that isn't really the point she's making. One steaming fight too many and he kicked back, off to traveling fast and footloose, spinning off new ideas like a memetic dynamo and living on the largesse of the new paradigm. File for divorce on grounds of irreconcilable ideological differences. No more whiplash-and-leather sex.

* * * *

Before he hits the TGV for Rome, Manfred takes time to visit a model airplane show: it's a good place to be picked up by a CIA stringer, and besides, DIY spy drones are hot shit this decade. Add microtechnology, cameras, and neural networks to balsa-wood flyers and you've got the next generation of military stealth flyer. The gig is happening in a decaying edge-of-town supermarket that rents out its shop floor for events like this; its emptiness is a sign of the times, ubiquitous broadband and expensive gas. (The robotized warehouse next door is, in contrast, frenetically busy, packing parcels for home delivery. Whether they telecommute or herd in meatspace offices, people still need to eat.)

Today, the food hall is full of people. Eldritch ersatz insects buzz menacingly along the shining empty meat counters without fear of electrocution: big monitors unfurled above the deli display cabinets show a weird, jerky view of a three-dimensional nightmare, painted all the synthetic colors of radar. The feminine hygiene galley has been wheeled back to make room for a gigantic plastic-shrouded tampon five meters long and sixty centimeters in diameter—a microsat launcher and conference display, plonked here by the show's sponsors in a transparent attempt to talent-spot the up-and-coming engineering geeks.

Manfred's glasses zoom in and grab a particularly fetching Fokker triplane that buzzes at face height through the crowd: he pipes the image stream up to one of his web sites in real time. The Fokker pulls up in a tight Immelman turn beneath the dust-shrouded pneumatic cash tubes that line the ceiling, then picks up the trail of an

F-104G. Cold War Luftwaffe and Great War Luftwaffe dart across the sky in an intricate game of tag. Manfred's so busy tracking the warbirds that he nearly trips over the fat white tube's launcher-erector.

“Eh, Manfred! More care, s'il vous plait!”

He wipes the planes and glances round. “Do I know you?” he asks politely.

“Amsterdam, two years ago.” The woman in the double-breasted suit raises an eyebrow at him and his social secretary remembers her for him, whispers in his ear.

“Annette, from, Arianespace marketing?” She nods and he focuses on her. Still dressing in the last-century retro mode that confused him the first time they met, she looks like a Kennedy-era secret service man: cropped bleached crew-cut like an angry albino hedgehog, pale blue contact lenses, black tie, narrow lapels. Her earrings are cameras, endlessly watching. “I remember. That cafe in Amsterdam. What brings you here?”

“Why—” her wave takes in the entirety of the show—“this talent show, of course.” An elegant shrug and a wave at the orbit-capable tampon. “We're hiring this year. If we re-enter the launcher market, we must employ only the best. Amateurs, not time-servers, engineers who can match the very best Singapore can offer.”

For the first time, Manfred notices the discreet corporate logo on the flanks of the booster. “You out-sourced your launch vehicle fabrication?”

Annette explains with forced casualness: “Hotels were more profitable, this past decade. The high-ups, they cannot be bothered with the rocketry, no? Things that go fast and explode, they are passé, they say. Diversify, they say. Until—” Her expression says it all. Manfred nods; her earrings are recording everything she says, due-dilligence monitoring.

“I'm glad to see Europe re-entering the launcher business,” he says seriously. “It's going to be very important when the nanosystems conformational replication business gets going for real. A major strategic asset to any corporate entity in the field; even a restaurant chain.”

Her laugh sounds like glass bells chiming. “And yourself, mon cher? What brings you to the Confederacion? You must have a deal in mind.”

“Well.” It's Manfred's turn to shrug. “I was *hoping* to find a CIA agent, but there don't seem to be any here today.”

“*That* is not surprising,” Annette says resentfully. “The CIA think the space industry, she is dead. Fools!” She continues for a minute, enumerating the many shortcomings of the Central Intelligence Agency with vigor and a distinctly Parisian rudeness. “They are become almost as bad as AP and Reuters since they go

public,” she finishes. “All these wire services! And they are, ah, stingy. The CIA does not understand that good news must be paid for at market rates if freelance stringers are to survive. They are to be laughed at. It is *so* easy to plant disinformation on them...” By way of punctuation a remarkably maneuverable miniature ornithopter swoops around her head, does a double-backflip, and dives off in the direction of the liquor display.

An Iranian woman wearing a backless leather minidress and a nearly transparent scarf barges up and demands to know how much the micro-booster costs to buy; she is dissatisfied with Annette’s attempt to direct her to the manufacturer’s WAP site, and Annette looks distinctly flustered by the time the woman’s boyfriend—a dashing young air force pilot—shows up to escort her away. “Tourists,” she mutters, before noticing Manfred, who is staring off into space with fingers twitching. “Manfred?”

“Uh—what?”

“I have been on this shop floor for six hours, and my feet, they kill me.” She takes hold of his left arm. “If I say to you I can write for the CIA wire service, will you take me to a restaurant and buy me dinner and tell me what it is you want to say?”

* * * *

Welcome to the second decade of the twenty-first century; the second decade in human history when the intelligence of the environment has shown signs of rising to match human demand.

The news from around the world is distinctly depressing this evening. In Maine, guerrillas affiliated with Parents for Traditional Children announce they’ve planted logic bombs in pre-natal clinic gene scanners, making them give random false positives when checking for hereditary disorders: the damage so far is six abortions and fourteen class action lawsuits.

The International Convention on Performing Rights is holding a third round of crisis talks in an attempt to stave off the final collapse of music licensing. On the one hand, hard-liners representing the Copyright Control Association of America are pressing for restrictions on duplicating the altered emotional states associated with specific media performances: as a demonstration that they mean business, two “software engineers” in California have been kneecapped, tarred, feathered, and left for dead under placards accusing them of reverse-engineering movie plot-lines using avatars of dead and out-of-copyright stars.

On the opposite side of the fence, the Association of Free Artists are demanding the right to perform music in public without a recording contract, and are denouncing the CCAA as being a tool of Mafiya apparachiks who have bought it from the moribund music industry in an attempt to go legit. FBI Director Leonid Kuibyshev responds by denying that the Mafiya is a significant presence in the

United States.

A marginally intelligent email virus masquerading as an IRS audit has caused havoc throughout America, garnishing an estimated eighty billion dollars in confiscatory tax withholdings into a numbered Swiss bank account. A different email virus is busy hijacking people's bank accounts, sending 10 percent of their assets to the previous victim and then mailing itself to everyone in the current mark's address book: a self-propelled pyramid scheme in action. Oddly, nobody is complaining much. While the mess is being sorted out, business IT departments have gone to standby, awaiting an expected wave of mutant corporation tax demands.

Tipsters are warning of an impending readjustment in the over-inflated reputations market, following revelations that some u-media gurus have been hyped past all realistic levels of credibility, and the consequent damage to the junk bonds market in integrity.

The EC council of independent heads of state have denied plans for another attempt at *eurofederalisme*, at least until the economy rises out of its current slump. Three extinct species have been resurrected in the past month; unfortunately, endangered ones are now dying off at a rate of one a day. And a group of militant anti-frankenfood campaigners are being pursued by Interpol after they announced that they have spliced a metabolic pathway for cyanogenic glycosides into maize seedcorn destined for human-edible crops. No deaths as yet, but having to test breakfast cereal for cyanide is really going to dent consumer trust.

About the only people who're doing well right now are the uploaded lobsters—and the crusties aren't even remotely human.

* * * *

Manfred and Annette eat on the top deck of the buffet car as their TGV barrels through a tunnel under the English Channel. Annette, it transpires, has been commuting daily from Paris; which was, in any case, Manfred's next destination. From the show, he messaged Aineko to round up his baggage and meet him at Waterloo Station, in a terminal like the shell of a giant steel woodlouse. Annette left her space launcher in the supermarket overnight: an unfueled test article, it is of no security significance.

The railway buffet car is run by a Nepalese fast food franchise. "I sometimes wish for to stay on the train," Annette says as she waits for her *mismas bhat*. "Past Paris! Think. Settle back in your couchette, to awaken in Moscow and change onto the TGV. All the way to Vladivostok in two days." She reaches round her ears and removes her camera bugs, drops them in her breast pocket.

"If they let you through the border," Manfred mutters. Russia is one of those places that still requires passports and asks if you are now or ever have been an anti-anti-communist: it's still trapped by its bloody-handed history. (Rewind the video stream to Stolypin and start out fresh.) Besides, they have enemies: white

Russian oligarchs, protection racketeers in the intellectual property business. Psychotic relics of the failed experiment with Marxism-Objectivism. “Are you *really* a CIA stringer?”

Annette grins, her lips disconcertingly red: “I file dispatches from time to time. Nothing sensitive.”

Manfred nods. “My wife has access to their unfiltered stream.”

“Your—” Annette pauses. “She, I met? In De Wildemann’s?” She sees his expression. “Oh, my poor fool!” She raises her glass to him. “It is not, has not gone, well?”

Manfred sighs and raises a toast toward Annette. “You know your marriage is in a bad way when you send your spouse messages via the CIA, and she communicates using the IRS.”

“In only two years.” Annette winces. “You will pardon me for saying this—she did not look like your type?”

“I’m not sure what my type is,” he says, truthfully. Sometimes he isn’t even sure he’s human any more; too many threads of his consciousness seem to live outside his head, reporting back whenever they find something interesting. Sometimes he feels like a puppet, and that frightens him because it’s one of the early warning signs of schizophrenia. Right now, the external threads of his consciousness are telling him that they like Annette, when she’s being herself instead of a cog in the meatspace ensemble of Arianespace management. “I want to be me. What do you want to be?”

She shrugs, as a waiter slides a plate in front of her. “I’m just a, a Parisian babe, no? An ingenue raised in the lilac age of le Confederacion Europée, the self-deconstructed ruins of the gilded European Union.”

“Yeah, right.” A plate appears in front of Manfred. “And I’m a good old micro-boomer from the MassPike corridor.” He peels back a corner of the omelet topping and inspects the food underneath it. “Born in the sunset years of the American century.” He pokes at one of the unidentifiable meaty lumps in the fried rice with his fork; it pokes right back. There’s a limit to how much his agents can tell him about her—European privacy laws are draconian by American standards—but he knows the essentials. Two parents who are still together, father a petty politician in some town council down in the vicinity of Toulouse. Went to the right *école*. The obligatory year spent bumming around the Confederacion at government expense, learning how other people live—a new kind of empire building, in place of the last century’s conscription and jackboot walkabout. No weblog or personal site that his agents can find. She joined Arianespace right out of the polytechnique and has been management track ever since: Korou, Manhattan Island, Paris. “You’ve never been married, I take it.”

She chuckles. “Time is too short! I am still young.” She picks up a forkful of food, and adds quietly: “Besides, the government would insist on paying.”

“Ah.” Manfred tucks into his bowl thoughtfully. With the birthrate declining across Europe, the EC bureaucracy is worried; the old EU started subsidizing babies, a new generation of carers, a decade ago, and it still hasn’t dented the problem. All it’s done is alienated the brightest women of childbearing age. Soon they’ll have to look to the east for a solution, importing a new generation of citizens—unless the long-promised aging hacks prove workable.

“Do you have a hotel?” Annette asks suddenly.

“In Paris?” Manfred is startled: “Not yet.”

“You must come home with me, then.” She looks at him quizzically.

“I’m not sure I—” He catches her expression. “What is it?”

“Oh, nothing. My friend Henri, he says I take in strays too easily. But you are not stray. Besides, it is the Friday today. Come with me and I will file your press release for the Company to read. Tell me, do you dance? You look as if you need a wild week-ending, to help forget your troubles!”

* * * *

Annette drives a steamroller seduction through Manfred’s ascetic plans for the weekend. He intended to find a hotel, file a press release, then spend some time researching the corporate funding structure of Parents for Traditional Children and the dimensionality of confidence variation on the reputation exchanges—before heading for Rome. Instead, Annette drags him back to her apartment, a large studio flat tucked away behind an alley in the Marais. She sits him at the breakfast bar while she tidies away his luggage, then makes him close his eyes and swallow two dubious-tasting capsules. Next, she pours them each a tall glass of freezing-cold Aquavit that tastes exactly like Polish rye bread. When they finish it she just about rips his clothes off. Manfred is startled to discover that he has a crowbar-stiff erection; since the last blazing row with Pamela he’d vaguely assumed he was no longer interested in sex. Instead, they end up naked on the sofa, surrounded by discarded clothing—Annette is very conservative, preferring the naked penetrative fuck of the last century to the more sophisticated fetishes of the present day.

Afterward, he’s even more surprised to discover that he’s still tumescent. “The capsules?” he asks.

She sprawls a well-muscled but thin thigh across him, then reaches down to grab his penis. Squeezes it. “Yes,” she admits. “You need much special help, I think.” Another squeeze. “Crystal meth and a traditional phosphodiesterase inhibitor.” He grabs one of her small breasts, feeling very brutish and primitive. *Naked*. He’s not sure Pamela ever let him see her fully naked: she thought skin was more sexy when it was covered. Annette squeezes him again and he stiffens.

“More!”

By the time they finish, he’s aching, and she shows him how to use the bidet. Everything is crystal clear and her touch is electrifying. While she showers, he sits on the toilet-seat lid and rants about Turing-completeness as an attribute of company law, about cellular automata and the blind knapsack problem, about his work on solving the Communist Central Planning problem using a network of interlocking unmanned companies. About the impending market adjustment in integrity, the sinister resurrection of the recording music industry, and the pressing need to dismantle Mars.

When she steps out of the shower, he tells her that he loves her; she kisses him and slides his glasses and earpieces off his head so that he’s *really* naked, sits on his lap, and fucks his brains out again, and whispers in his ear that she loves him and wants to be his manager. Then she leads him into her bedroom and tells him exactly what she wants him to wear, and she puts on her own clothes, and she gives him a mirror with some white powder on it to sniff. When she’s got him dolled up, they go out for a night of really serious clubbing, Annette in a tuxedo and Manfred in a blonde wig, red silk off-the-shoulder gown and high heels. Some time in the early hours, exhausted and resting his head on her shoulder during the last tango in a BDSM club in the rue Ste-Anne, he realizes that it really *is* possible to be in lust with someone other than Pamela.

* * * *

Aineko wakes Manfred by repeatedly head-butting him above the left eye. He groans, and as he tries to open his eyes, he finds that his mouth tastes like a dead trout, his skin feels greasy with makeup, and his head is pounding. There’s a banging noise somewhere: Aineko meows urgently. He sits up, feeling unaccustomed silk underwear rubbing against incredibly sore skin—he’s fully dressed, just sprawled out on the sofa. Snores emanate from the bedroom; the banging is coming from the front door. Someone wants to come in. *Shit*. He rubs his head, stands up, and nearly falls flat on his face: he hasn’t even taken those ridiculous high heels off. *How much did I drink last night?* he wonders. His glasses are on the breakfast bar; he pulls them on and is besieged by an urgent flurry of ideas demanding attention. He straightens his wig, picks up his skirts, and trips across to the door with a sinking feeling. Luckily, his publicly traded reputation is strictly technical.

He unlocks the door. “Who is it?” he asks in English. By way of reply, somebody shoves the door in, hard. Manfred falls back against the wall, winded. His glasses stop working, sidelong displays filling with multi-colored static.

Two men charge in, identically dressed in jeans and leather jackets. They’re wearing gloves and occlusive face-masks, and one of them points a small and very menacing ID card at Manfred. A self-propelled gun hovers in the doorway, watching everything. “Where is he?”

“Who?” gasps Manfred, breathless and terrified.

“Macx.” The other intruder steps into the living room quickly, pans around, ducks through the bathroom door. Aineko flops as limp as a dishrag in front of the sofa. The intruder checks out the bedroom: there’s a brief scream, cut off short.

“I don’t know—who?” Manfred is choking with fear.

The other intruder ducks out of the bedroom, waves a hand dismissively.

“We are sorry to have bothered you,” the man with the card says stiffly. He replaces it in his jacket pocket. “If you should see Manfred Macx, tell him that the Copyright Control Association of America advises him to cease and desist from his attempt to assist music thieves and other degenerate mongrel second-hander enemies of objectivism. Reputations are only of use to those alive to own them! Goodbye.”

The two copyright gangsters disappear through the door, leaving Manfred to shake his head dizzily while his glasses reboot. It takes him a moment to register the scream from the bedroom. “Fuck. *Annette!*...”

She appears in the open doorway, holding a sheet around her waist, looking angry and confused. “Annette!” he calls. She looks around, sees him, and begins to laugh shakily. “Annette!” He crosses over to her. “You’re okay,” he says. “You’re okay.”

“You too.” She hugs him, and she’s shaking. Then she holds him at arm’s length. “My, what a pretty picture!”

“They wanted me,” he says, and his teeth are chattering. “*Why?*”

She looks up at him seriously. “You must bathe. Then have coffee. We are not at home, oui?”

“Ah, oui.” He looks down. Aineko is sitting up, looking dazed. “Shower. Then that dispatch for CIA news.”

“The dispatch?” She looks puzzled. “I filed that last night. When I was in the shower. The microphone, he is waterproof.”

* * * *

By the time Arianespace’s security contractors show up, Manfred has stripped off Annette’s evening gown—shaking his head, *what was I on?*—and showered; he’s sitting in the living room wearing a bathrobe, drinking a half-liter mug of espresso and swearing under his breath.

While he was dancing the night away in Annette’s arms, the global reputation market has gone nonlinear; people are putting their trust in the Christian Coalition and the Eurocommunist Alliance—always a sign that the times are bad—while perfectly sound trading enterprises have gone into free fall, as if a major bribery scandal has broken out. This is bad news for Manfred, who essentially earns his living by traveling the world, inventing cool intellectual properties, and giving them away in

such a manner that they contribute as much to the commons as to their immediate recipients.

Manfred is a classic agalamic entrepreneur: he trades ideas for kudos via the Free Intellect Foundation, bastard child of George Soros and Richard Stallman. *His* reputation is cemented by donations to the public good that don't backfire; being caught on the wrong side of the bed is a non-issue. So he's offended and startled to discover that he's dropped twenty points in the past two hours—and frightened to see that this is by no means unusual. He was expecting a ten-point drop mediated via an options trade—payment for the use of the anonymous luggage remixer that routed his old suitcase to Mombasa and in return sent this new one to him via the left-luggage office in Luton—but this is more serious; the entire reputation market seems to have been hit by the confidence flu.

Annette bustles around busily, pointing out angles and timings to the forensics team. She seems more angry and shaken than worried by the intrusion; it's probably an occupational hazard in her line of work, as an upward-rising executive in the old, grasping network of greed that Manfred's agalamic future aims to supplant. The forensics dude and dudette, a pair of cute, tanned Lebanese youngsters, point the yellow snout of their mass spectroscope into various corners and agree that there's something not unlike gun oil in the air. But, so sorry, the intruders wore masks to trap the skin particles, so there's no way of getting a genotype match, and they left nothing on the door handles. Presently they agree to log it as a suspected corporate intrusion (origin: unclassified; severity: worrying) and increase the logging level on her kitchen telemetry. And remember to wear your earrings at all times, please. They leave, and Annette locks the door, leans against it, and curses for a whole long minute.

"They gave me a message from the copyright control agency," Manfred says unevenly when she winds down. "Russian gangsters from New York bought the recording cartels a few years ago after the software industry won the lawsuits over MP3 downloads. They add a whole new meaning to copy protection: this was just a polite cease-and-desist notice by their standards. They run the record shops and they *try* to block any music distribution channel they don't own. Not very successfully, though—most gangsters are living in the past, more conservative than any normal businessman can afford to be. What was it that you put on the wire?"

Annette closes her eyes. "I don't remember. No." She holds up a hand. "Open mike. I streamed you into a file and cut, cut out the bits about me." She opens her eyes and shakes her head. "What was I *on*?"

"You don't know either?"

He stands up and she walks over and throws her arms around him. "I was on *you*," she murmurs.

"Bullshit." He pulls away, then sees how this upsets her. Something is blinking

for attention in his glasses; he's been off-line for the best part of six hours and is getting a panicky butterfly stomach at the idea of not being in touch with everything that's happened in the last twenty kiloseconds. "I need to know more. *Something* in that report rattled the wrong cages. Or someone ratted on the suitcase exchange—I meant the dispatch to be a heads-up for whoever needs a working state-planning system, not an invitation to shoot me!"

"Well, then." She lets go of him. "Do your work." Coolly: "I'll be around."

He realizes now that he's hurt her, but he doesn't see any way of explaining that he didn't mean to—at least, not without working himself in deeper. He finishes his croissant and plunges into one of those unavoidable fits of deep interaction, fingers twitching on invisible keypads and eyeballs jiggling as his glasses funnel deep media straight into his skull through the highest bandwidth channel currently available.

One of his email accounts is halfway to the moon with automatic messages, companies with names like `agalmic.holdings.root.8E.F0` screaming for the attention of their transitive director. Each of these companies—and there are currently more than sixteen thousand of them, although the herd is growing day by day—has three directors and is the director of three other companies. Each of them executes a script in a functional language Manfred invented; the directors tell the company what to do, and the instructions include orders to pass instructions on to their children. In effect, they are a flock of cellular automata, like the cells in Conway's Game of Life, only far more complex and powerful.

Manfred's companies form a programmable grid. Some of them are armed with capital in the form of patents Manfred filed and then delegated rather than passing on to the Free Intellect Foundation; some of them are effectively non-trading, but occupy directorial roles. Their corporate functions (such as filing of accounts and voting in new directors) are all handled centrally through his company operating framework, and their trading is carried out via several of the more popular B2B enabler dot-coms. Internally, the companies do other, more obscure load-balancing computations, processing resource-allocation problems like a classic state central-planning system. None of which explains why fully half of them have been hit by random lawsuits in the past twenty-two hours.

The lawsuits are...*random*. That's the only pattern Manfred can detect. Some of them allege patent infringements; these he might take seriously, except that about a third of the targets are director companies that don't actually do anything visible to the public. A few lawsuits allege mis-management, but then there's a whole bizarre raft of spurious nonsense: suits for wrongful dismissal or age discrimination—against companies with no employees—complaints about reckless trading, and an action alleging that the defendant (in conspiracy with the prime minister of Japan, the government of Canada, and the Emir of Kuwait) is using orbital mind-control lasers to make the plaintiff's pet chihuahua bark at all hours of the day and night.

Manfred groans and does a quick calculation. At the current rate, lawsuits are hitting his corporate grid at a rate of one every sixteen seconds—up from none in the preceding six months. In another day, this is going to saturate him. If it keeps up for a week, it'll saturate every court in the United States. *Someone* has found a means to do for lawsuits what he's doing for companies—and they've chosen him as their target.

To say that Manfred is unamused is an understatement. If he weren't already preoccupied with Annette's emotional state and edgy from the intrusion, he'd be livid—but he's still human enough that he responds to human stimuli first. So he determines to do something about it, but he's still flashing on the floating gun, her cross-dressing cool.

Transgression, sex, and networks; these are all on his mind when Mr. Glashwicz phones.

"Hello?" Manfred answers distractedly; he's busy pondering the lawsuit 'bot that's attacking his systems.

"Macx! The elusive Mister Macx!" Glashwicz sounds positively overjoyed to have tracked down his target. Manfred winces.

"Who is this?" he asks.

"I called you yesterday," says the lawyer; "you should have listened." He chortles horribly. "Now I have you!"

Manfred holds the phone away from his face, like something poisonous. "I'm recording this," he warns. "Who the hell are you and what do you want?"

"Your wife has retained my partnership's services to pursue her interests in your divorce case. When I called you yesterday, it was to point out that your options are running out. I have an order, signed in court three days ago, to have all your assets frozen. These ridiculous shell companies notwithstanding, she's going to take you for exactly what you owe her. After tax, of course. She's very insistent on that point."

Manfred glances round, puts his phone on hold for a moment: "Where's my suitcase?" he asks Aineko. The cat sidles away, ignoring him. "Shit." He can't see the new luggage anywhere: it's probably on its way to Morocco by now, complete with its priceless cargo of high-density information. He returns his attention to the phone. Glashwicz is droning on about equitable settlements, cumulative IRS tax demands—that seem to have materialized out of fantasy with Pam's imprimatur on them—and the need to make a clean breast of things in court and confess to his sins. "Where's the fucking suitcase?" He takes the phone off hold. "Shut the fuck up, please, I'm trying to think."

"I'm not going to shut up! You're on the court docket already, Macx. You

can't evade your responsibilities forever. You've got a wife and a helpless daughter to care for—"

"A daughter?" That cuts right through Manfred's preoccupation with the suitcase.

"Didn't you know?" Glashwicz sounds pleasantly surprised. "She was decanted on Sunday. Perfectly healthy, I'm told. I thought you knew; you have visiting rights via the clinic webcam. Anyway. I'll just leave you with this thought, the sooner you come to a settlement the sooner I can unfreeze your companies. Goodbye."

The suitcase rolls into view, peeping coyly out from behind Annette's dressing table. Manfred beckons to it; right now it's easier to deal with his Plan B than dawn raids by objectivist gangsters, Annette's sulk, his wife's incessant legal spamming, and the news that he is a father against his will. "C'mon over here, you stray baggage. Let's see what I got for my reputation derivatives."

* * * *

Anticlimax.

Annette's communiqué is anodyne; a giggling confession off-camera (shower-curtain rain in the background) that the famous Manfred Macx is in Paris for a weekend of clubbing, drugging, and general hell-raising. Oh, and he's promised to invent three new paradigm shifts before breakfast every day, starting with a way to actualize the arrival of True Communism by building a state central-planning apparatus that interfaces perfectly with external market systems and somehow manages to algorithmically outperform the Monte Carlo free-for-all of market economics. Just because he *can*, because hacking economics is fun and he wants to hear the screams from the Chicago school.

Try as he may, Manfred can't see anything in the press release that is at all unusual. It's just the sort of thing he does, and getting it on the net was why he was looking for a CIA stringer in the first place.

He tries to explain this to her in the bath as he soaps her back. "I don't understand what they're on about," he complains. "There's nothing that tipped them off—except that I was in Paris, and you filed the news. You did *nothing* wrong."

"Mais oui." She turns round, slippery as an eel, and slides backward into the water. "I try to tell you this but you are not listening."

"I am now." Water droplets cling to the outside of his glasses, plastering his view of the room with laser speckle highlights. "I'm sorry, Annette. I brought this mess with me. I can take it out of your life."

"No!" She rises up in front of him and leans forward, face serious. "I said yesterday. I want to be your manager. Take me in."

“I don’t need a manager; my whole thing is about being fast and out-of-control!”

“You think you do not *need* a manager, but your companies do,” she observes. “You have lawsuits, how many? You cannot the time to oversee them spare. The Soviets, they abolish capitalists, but even they need managers. Please, let me manage for you!”

Annette is so intense about the idea that she becomes visibly aroused. He leans toward her, cups a hand around one taut nipple. “The company matrix isn’t sold yet,” he admits.

“It is not?” She looks delighted. “Excellent! To who can this be sold, to Moscow? To SLORC? To—”

“I was thinking of the Italian Communist Party,” he says. “It’s a pilot project. I was working on selling it—need the money for my divorce, to close the deal on the luggage—but it’s not that simple. Someone has to run the damn thing—someone with a keen understanding of how to interface a central-planning system with a capitalist economy. A system administrator with experience of working for a multinational corporation would be ideal, one with an interest in finding new ways and means of interfacing the centrally planned enterprise to the outside world.” He looks at her with suddenly dawning surmise. “Um. You interested?”

* * * *

Rome is hotter than downtown Columbia, SC over Thanksgiving weekend; it stinks of methane-burning Skodas with a low undertone of cooked dogshit. The cars are brightly colored subcompact missiles, hurtling in and out of alleyways like angry wasps: hot-wiring their drive-by-wire seems to be the national sport, although Fiat’s embedded-systems people have always written notoriously wobbly software.

Manfred emerges from the Stazione Termini into dusty sunlight, blinking like an owl. His glasses keep up a rolling monologue about who lived where in the days of the late Republic; they’re stuck on a tourist channel and won’t come unglued from that much history without a struggle. Manfred doesn’t feel like a struggle right now. He feels like he’s been sucked dry over the weekend: a light, hollow husk that might blow away in a stiff breeze. He hasn’t had a patentable idea all day. This is not a good state to be in on a Monday morning when he’s due to meet the former Minister for Economic Affairs in an hour and a half, in order to give him a gift that will probably get the minister a shot at higher office, and get Pam’s lawyer off his back for good.

The ex-Minister’s private persona isn’t what Manfred was expecting. All Manfred has seen up to now is a polished public avatar in a traditionally cut suit, addressing the Chamber of Deputies in cyberspace: which is why when he rings the doorbell set in the whitewashed doorframe of Gianni’s front door, he isn’t expecting a piece of Tom of Finland beefcake, complete with breechcloth and peaked leather

cap, to answer.

“Hello, I am here to see the minister,” Manfred says carefully. Aineko, perched on his left shoulder, attempts to translate: it trills something that sounds extremely urgent. *Everything* sounds urgent in Italian.

“It’s okay, I’m from Iowa,” says the guy in the doorway. He tucks a thumb under one leather strap and grins over his mustache: “What’s it about?” Over his shoulder: “Gianni! Visitor!”

“It’s about the economy,” Manfred says carefully. “I’m here to make it obsolete.”

The beefcake backs away from the door cautiously—then the minister appears behind him. “Ah, signore Macx! It’s okay, Johnny, I have been expecting him.” Gianni extends a rapid welcome, like a hyperactive gnome buried in a white toweling bathrobe: “Please come in, my friend! I’m sure you must be tired from your journey. A refreshment for the guest if you please, Johnny. Would you prefer coffee or something stronger?”

Five minutes later Manfred is buried up to his ears in a sofa covered in buttery white cowhide, a cup of virulently strong espresso balanced precariously on his knee, while Gianni Vittoria himself holds forth on the problems of implementing a postindustrial ecosystem on top of a bureaucratic system with its roots in the bull-headedly modernist era of the 1920s. Gianni is a visionary of the left, a strange attractor within the chaotic phase-space of Italian politics. A former professor of Marxist economics, his ideas are informed by a painfully honest humanism, and everyone—even his enemies—agrees that he is one of the greatest theoreticians of the post-EU era. But his intellectual integrity prevents him from rising to the very top, and his fellow-travelers are much ruder about him than his ideological enemies, accusing him of the ultimate political crime: valuing truth over power.

Manfred met Gianni a couple of years ago via a hosted politics chatroom; at the beginning of last week, he sent him a paper detailing his embeddable planned economy and a proposal for using it to turbocharge the endless Italian attempt to re-engineer its government systems. This is the thin end of the wedge: if Manfred is right, it could catalyze a whole new wave of communist expansion, driven by humanitarian ideals and demonstrably superior performance, rather than wishful thinking and ideology.

“It is impossible, I fear. This is Italy, my friend: everybody has to have their say. Not everybody even understands what it is we are talking about, but that won’t stop them talking about it. Since 1945, our government requires consensus—a reaction to what came before. Do you know we have five different routes to putting forward a new law, two of them added as emergency measures to break the gridlock? And none of them work on their own unless you can get everybody to agree. Your plan is daring and radical but if it works, we must understand why *we*

work—and that digs right to the root of being human, and not everybody will agree.”

At this point, Manfred realizes that he’s lost. “I don’t understand,” he says, genuinely puzzled. “What has the human condition got to do with economics?”

The minister sighs abruptly. “You are very unusual. You earn no money, do you? But you are rich, because grateful people who have benefited from your work give you everything you need. You are like a mediaeval troubadour who has found favor with the aristocracy. Your labor is not alienated—it is given freely, and your means of production with you always, inside your head.” Manfred blinks; the jargon is weirdly technical-sounding but orthogonal to his experience, offering him a disquieting glimpse into the world of the terminally future-shocked. He is surprised to find that not understanding *itches*.

Gianni taps his balding temple with a knuckle like a walnut. “Most people spend little time inside their head. They don’t understand how you live. They’re like mediaeval peasants looking in puzzlement at the troubadour. This system you invent, for running a planned economy, is delightful and elegant: Lenin’s heirs would have been awe-struck. But it is not a system for the new century. It is not *human*.”

Manfred scratches his head. “It seems to me that there’s nothing human about the economics of scarcity,” He says. “Anyway, humans will be obsolete as economic units within a couple more decades. All I want to do is make everybody rich beyond their wildest dreams before that happens.” A pause for a sip of coffee, and to think *one honest statement deserves another*: “and to pay off a divorce settlement.”

“Ye-es? Well, let me show you my library, my friend,” Gianni says, standing up. “This way.”

The older man ambles out of the predominantly white living room with its carnivorous leather sofas and up a cast-iron spiral staircase that nails some kind of upper level onto the base of the building. “Human beings aren’t rational,” he calls over his shoulder. “That was the big mistake of the Chicago school economists, neo-liberals to a man, and of my predecessors, too. If human behavior were logical, there would be no gambling, hmm? The house always wins, after all.” The staircase debouches into another airy whitewashed room, where one wall is occupied by a wooden bench supporting a number of ancient, promiscuously cabled servers and a very new, eye-wateringly expensive solid volume renderer. Opposite the bench is a wall occupied from floor to ceiling by bookcases: Manfred looks at the ancient, low-density medium and sneezes, momentarily bemused by the sight of data density measured in kilograms per megabyte rather than vice versa.

“What’s it fabbing?” Manfred asks, pointing at the renderer, which is whining to itself and slowly sintering together something that resembles a carriage clock maker’s fever dream of a clockwork-powered hard disk drive.

“Oh, one of Johnny’s toys: a micromechanical digital phonograph player,” Gianni says dismissively. “He used to design Babbage engines for the Pentagon: stealth computers. (No Van Eck radiation, you know.) Look.” He carefully pulls a fabric-bound document out of the obsolescent data wall and shows the spine to Manfred: “*On the Theory of Games*, by John Von Neumann. Signed first edition.”

Aineko meeps and dumps a slew of confusing purple finite state automata into Manfred’s left eye: the hardback is dusty and dry beneath his fingertips as he remembers to turn the pages gently. “This copy belonged to the personal library of Oleg Kordiovsky. A lucky man is Oleg: he bought it in 1952, while on a visit to New York, and the MVD let him to keep it.”

“He must be—” Manfred pauses. More data, historical timelines. “GosPlan?”

“Correct.” Gianni smiles thinly. “Two years before the central committee denounced computers as bourgeois deviationist pseudo-science intended to dehumanize the proletariat. They recognized the power of robots even then. A shame they do not anticipate the compiler or the net.”

“I don’t understand the significance. Nobody back then could expect that the main obstacle to doing away with the market would be overcome within half a century, surely?”

“Indeed not. But it’s true: since the nineteen-eighties, it has been possible—in principle—to resolve resource allocation problems algorithmically, by computer, instead of needing a market. Markets are wasteful: they allow competition, much of which is thrown on the scrap heap. So why do they persist?”

Manfred shrugs. “You tell me. Conservatism?”

Gianni closes the book and puts it back on the shelf. “Markets afford their participants the illusion of *free will*, my friend. You will find that human beings do not like being forced into doing something, even if it is in their best interests. Of necessity, a command economy must be coercive—it does, after all, command.”

“But my system doesn’t! It mediates where supplies go, not who has to produce what—”

Gianni is shaking his head. “Backward chaining or forward chaining, it is still an expert system, my friend. Your companies need no human beings, and this is a good thing, but they must not *direct* the activities of human beings, either. If they do, you have just enslaved people to an abstract machine, as dictators have throughout history.”

Manfred’s eyes scan along the bookshelf. “But the market itself is an abstract machine! A lousy one, too. I’m mostly free of it—but how long is it going to continue oppressing people?”

“Maybe not as long as you fear.” Gianni sits down next to the renderer, which

is currently extruding the inference mill of the analytical engine. “The marginal value of money decreases, after all: the more you have, the less it means to you. We are on the edge of a period of prolonged economic growth, with annual averages in excess of 20 percent if the Council of Europe’s predictor metrics are anything to go by. The last of the flaccid industrial economy has withered away, and this era’s muscle of economic growth, what used to be the high-technology sector, is now everything. We can afford a little wastage, my friend, if that is the price of keeping people happy until the marginal value of money withers away completely.”

Realization dawns. “You want to abolish scarcity, not just money!”

“Indeed.” Gianni grins. “There’s more to that than mere economic performance; you have to consider abundance as a factor. Don’t plan the economy; take things *out* of the economy. Do you pay for the air you breathe? No. Now, do you want to know how you can pay for your divorce settlement?”

* * * *

The shutters are thrown back, the curtains tied out of the way, and Annette’s huge living room windows are drawn open in the morning breeze.

Manfred sits on a leather-topped piano stool, his suitcase open at his feet. He’s running a firewire link from the case to Annette’s stereo, an antique standalone SDMI unit with a satellite internet uplink. Someone has chipped it, crudely revoking its copy-protection algorithm: the back of its case bears scars from their soldering iron. Annette is curled up on the huge sofa, wrapped in a caftan and a pair of high bandwidth goggles, taking a break from his scheme to thrash out an Arianespace scheduling problem with some colleagues in Iran and Guyana.

His suitcase is full of noise, but what’s coming out of the stereo is ragtime. Subtract entropy from a data stream—coincidentally uncompressing it—and what’s left is information. With a capacity of about a trillion terabytes, the suitcase’s holographic storage reservoir has enough capacity to hold every music, film, and video production of the twentieth century with room to spare. This is all stuff that is effectively out of copyright control, work-for-hire owned by bankrupt companies, released before the CCAA could make their media clamp-down stick. Manfred is streaming the music through Annette’s stereo—but keeping the noise it was convoluted with. High-grade entropy is valuable....

Presently, Manfred sighs and pushes his glasses up his forehead, killing the displays. He’s thought his way around every permutation of what’s going on, and it looks like Gianni was right: there’s nothing left to do but wait for everyone to show up.

For a moment, he feels old and desolate, as slow as an unassisted human mind. Agencies have been swapping in and out of his head for the past day, ever since he got back from Rome; he’s developed a butterfly attention span, irritable and unable to focus on anything while the information streams fight it out for control of

his cortex, arguing about a solution to his predicament. Annette is putting up with his mood swings surprisingly calmly; he's not sure why, but he glances her way fondly. Her obsessions run surprisingly deep, and she's quite clearly using him for her own purposes. So why does he feel more comfortable around her than he ever did with Pam?

She stretches and pushes her goggles up. "Oui?"

"I was just thinking." He smiles. "Three days and you haven't told me what I should be doing with myself yet."

She pulls a face. "Why would I do that?"

"Oh, no reason. I'm just not over—" he shrugs uncomfortably. There it is, an inexplicable absence in his life: but not one he feels he urgently needs to fill yet. Is this what a relationship between equals feels like? He's not sure; starting with the occlusive cocooning of his upbringing and continuing through all his adult relationships, he's been effectively—voluntarily—dominated by his partners. Maybe the anti-submissive conditioning is working, after all. But if so, why this creative malaise? Why isn't he coming up with original new ideas this week? Could it be that his peculiar brand of creativity is an outlet, that he needs the pressure of being lovingly enslaved to make him burst out into a great flowering of imaginative brilliance?

Annette stands up and walks over, slowly. He looks at her and feels lust and affection, and isn't sure whether or not this is love. "When are they due?" she asks, leaning over him.

"Any—" the doorbell chimes.

"Ah. I will get that." She stalks away, opens the door.

"You!"

Manfred's head snaps round as if he's on a leash. *Her* leash: but he wasn't expecting her to come in person.

"Yes, me," Annette says easily. "Come in. Be my guest."

Pam enters the apartment living room with flashing eyes, her tame lawyer in tow. "Well, look what the robot kitty dragged in," she drawls, fixing Manfred with an expression that owes more to contempt than to humor.

Manfred rises: for a moment, he's transfixed by the sight of his dominatrix wife, and his—mistress? conspirator?—side by side. The contrast is marked: Annette's expression of ironic amusement a foil for Pamela's angry sincerity. Somewhere behind them stands a balding middle-aged man in a suit, carrying a folio: just the kind of diligent serf Pam would have turned him into, given time. Manfred musters up a smile. "Can I offer you some coffee?" he asks. "The party of the third

part seems to be late.”

“Coffee would be great, mine’s dark, no sugar,” twitters the lawyer. He puts his briefcase down on a side table and fiddles with his wearable until a light begins to blink from his spectacle frames: “I’m recording this, I’m sure you understand.”

Annette sniffs and heads for the kitchen, which is charmingly manual but not very efficient: Pam is pretending she doesn’t exist. “Well, well, well.” She shakes her head. “I’d expected better of you than a French tart’s boudoir, Manny. And before the divorce’s even settled.”

“I’m surprised you’re not in the hospital,” he says. “I gather post-natal recovery is outsourced these days?”

“The employers.” She slips her long coat off her shoulders and hangs it behind the broad wooden door. “They subsidize everything when you reach my grade.” Pamela is tall, ash-blonde, with features that speak of an unexplored modeling career. She’s wearing a very short, very expensive dress, the kind of weapon in the war between the sexes that ought to come with an end-user certificate: but to his surprise it has no effect on him. He realizes that he’s completely unable to evaluate her gender: it’s almost as if she’s become a member of another species. “As you’d be aware if you’d been paying attention.”

“I always pay attention, Pam,” he says: “it’s the only currency I carry.”

“Very droll, ha ha,” interrupts Glashwicz, the lawyer. “You do realize that you’re paying me while I stand here listening to this fascinating by-play?”

Manfred stares at him: “You know I don’t have any money.”

“Ah.” Glashwicz smiles. “But you must be mistaken. Certainly the judge will agree with me that you must be mistaken—all a lack of paper documentation means is that you’ve covered your trail. There’s the small matter of the several thousand corporations you own, indirectly: somewhere at the bottom of that pile there’s got to be something, hasn’t there?”

A hissing, burbling noise like a sackful of large lizards being drowned in mud emanates from the kitchen, suggesting that Annette’s percolator is nearly ready. Manfred’s left hand twitches, playing chords on an air keyboard: without being at all obvious, he’s releasing a bulletin about his current activities that should soon have an effect on the reputation marketplace. Manfred heads for the sofa. “Your attack was rather elegant,” he comments, as Pam disappears into the kitchen.

Glashwicz nods. “The idea was one of my interns’,” he says. “I don’t understand this distributed denial of service stuff, but Lisa grew up on it. Something about it being a legal travesty, but workable all the same.”

“Uh-huh.” Manfred’s opinion of the lawyer drops a notch. He notices Pam re-appearing from the kitchen, her expression icy; a moment later Annette surfaces

carrying a jug and some cups, beaming innocently. Something's going on, but at that moment one of his agents nudges him urgently in the left ear, his suitcase keens mournfully and beams a sense of utter despair at him, and the doorbell rings again.

"So what's the scam?" Glashwicz sits down uncomfortably close to Manfred and murmurs out of one side of his mouth. "Where's the money?"

Manfred looks at him irritably: "There *is* no money," he says. "The idea is to make money *obsolete*. Hasn't she explained that?" His eyes wander, taking in the lawyer's Philippe Patek watch, his Java-enabled signet ring.

"C'mon. Don't give me that line. Look, all it takes is a couple of million and you can buy your way free for all I care. All I'm here for is to see that your wife and daughter don't get left penniless and starving. You know and I know that you've got bags of it stuffed away—just look at your reputation! You didn't get that by standing at the roadside with a begging bowl, did you?"

Manfred snorts. "You're talking about an elite IRS auditor here. She isn't penniless; she gets a commission on every poor bastard she takes to the cleaners and she was born with a trust fund. Me, I—" The stereo bleeps. Manfred pulls his glasses on. Whispering ghosts of dead artists hum through his ear lobes, urgently demanding their freedom. Someone knocks at the door again and he glances round to see Annette walking toward it.

"You're making it hard on yourself," Glashwicz warns.

"Expecting company?" Pam asks, one brittle eyebrow raised in Manfred's direction.

"No—"

Annette opens the door and a couple of guards in full SWAT gear march in. They're clutching gadgets that look like a cross between a digital sewing machine and a grenade launcher, and their helmets are studded with so many sensors that they resemble nineteen-fifties space probes. "That's them," Annette says clearly.

"*Mais oui.*" The door closes itself and the guards stand to either side. Annette stalks toward Pam.

"You think to walk in here, to my pied-a-terre, and take from Manfred?" She snorts.

"You're making a big mistake, lady," Pam says, her voice steady and cold enough to liquefy helium.

A burst of static from one of the troopers. "No," Annette says distantly. "No mistake."

She points at Glashwicz. "Are you aware of the takeover?"

“Takeover?” The lawyer looks puzzled, but not alarmed by the presence of the guards.

“As of three hours ago,” Manfred says quietly, “I sold a controlling interest in agalomic.holdings.root.1.1.1 to Athene Accelerants BV, a venture capital outfit from Maastricht. One dot one dot one is the root node of the central planning tree. Athene aren’t your usual VC, they’re accelerants—they take explosive business plans and detonate them.” Glashwicz is looking pale: whether with anger or fear of a lost commission is impossible to tell. “Actually, Athene Accelerants are owned by a shell company owned by the Italian Communist Party’s pension trust. The point is, you’re in the presence of one dot one dot one’s chief operations officer.”

Pam looks annoyed. “Peurile attempts to dodge responsibility—”

Annette clears her throat. “Exactly *who* do you think you are trying to sue?” she asks Glashwicz sweetly. “Here we have laws about unfair restraint of trade. Also about foreign political interference, specifically in the financial affairs of an Italian party of government.”

“You wouldn’t—”

“I would.” Manfred brushes his hands on his knees and stands up. “Done yet?” he asks the suitcase.

Muffled beeps, then a gravelly synthesized voice speaks: “Uploads completed.”

“Ah, good.” He grins at Annette. “Time for our next... ?”

On cue, the doorbell rings again. The guards sidle to either side of the door. Annette snaps her fingers and the door opens to admit a pair of smartly dressed thugs. It’s beginning to get crowded in the living room.

“Which one of you is Macx?” snaps the older one of the two thugs, staring at Glashwicz for no obvious reason. He hefts an aluminum briefcase. “Got a writ to serve.”

“You’d be the CCAA?” asks Manfred.

“You bet. If you’re Macx, I have a restraining order—”

Manfred raises a hand. “It’s not me you want,” he says. “It’s *this* lady.” He points at Pam, whose mouth opens in silent protest. “Y’see, the intellectual property you’re chasing wants to be free. It’s so free that it’s now administered by a complex set of corporate instruments lodged in the Netherlands, and the prime shareholder as of approximately four minutes ago is my soon-to-be-ex-wife Pamela, here.” He winks at Glashwicz. “Except she doesn’t *control* anything.”

“Just *what* do you think you’re playing at, Manfred?” Pamela snarls, unable to

contain herself any longer. The guards shuffle: the larger, junior CCAA enforcer tugs at his boss's jacket nervously.

“Well.” Manfred picks up his coffee and takes a sip. Grimaces. “Pam wanted a divorce settlement, didn't she? The most valuable assets I own are the rights to a whole bunch of recategorized work-for-hire that slipped through the CCAA's fingers a few years back. Part of the twentieth century's cultural heritage that got locked away by the music industry in the last decade; Janis Joplin, the Doors, that sort of thing. Artists who weren't around to defend themselves any more. When the music cartels went bust, the rights went for a walk. I took them over originally with the idea of setting the music free. Giving it back to the public domain, as it were.”

Annette nods at the guards, one of whom nods back and starts muttering and buzzing into a throat mike. Manfred continues. “I was working on a solution to the central planning paradox—how to interface a centrally planned enclave to a market economy. My good friend Gianni Vittoria suggested that such a shell-game could have alternative uses. So I've *not* freed the music. Instead, I signed the rights over to various actors and threads running inside the agalamic holdings network—currently one million, forty-eight thousand, five hundred and seventy-five companies. They swap rights rapidly—the rights to any given song are resident in a given company for, oh, all of fifty milliseconds at a time. Now understand, I don't own these companies. I don't even have a financial interest in them any more. I've deeded my share of the profits to Pam, here.”

He takes another mouthful of coffee. The recording mafiya goon glares at him. Pam glares at him. Annette stands against one wall, looking amused. “Perhaps you'd like to sort it out between you?” he asks. Aside, to Glashwicz: “I trust you'll drop your denial of service attack before I set the Italian parliament on you? By the way, you'll find the book value of the intellectual property assets I deeded to Pamela—by the value *these* gentlemen place on them—is somewhere in excess of a billion dollars. As that's rather more than ninety-nine-point-nine percent of my assets you'll probably want to look elsewhere for your fees.”

Glashwicz stands up carefully. The lead goon stares at Pamela. “Is this true?” he demands. “This little squirt give you IP assets of Sony Music? We have claim! You come to us for distribution or you get in deep trouble!”

The second goon rumbles agreement: “Remember, dose MP3's, dey bad for you health!”

Annette claps her hands. “If you would to leave my apartment, please.” The door, attentive as ever, swings open: “You are no longer welcome here!”

“This means you,” Manfred advises Pam, helpfully.

“You *bastard!*” she spits at him.

Manfred forces a smile, bemused by his inability to respond to her the way

she wants. “I thought you *wanted* my assets? Are the encumbrances too much for you?”

“You know what I mean! You and that two-bit euro-whore! I’ll get you for child neglect!”

His smile freezes. “Try it and I’ll sue you for breach of patent rights. My genome, you understand.”

Pam is taken aback by this. “You patented your *own* genome? What happened to the brave new communist, sharing information freely?”

Manfred stops smiling. “Divorce happened.”

She turns on her heel and stalks out of his life, tame attorney in tow behind her, muttering about class-action lawsuits and violations of the Digital Millennium Copyright Act. The CCAA lawyer’s tame gorilla makes a grab for Glashwicz’s shoulder and the guards move in, hustling the whole movable feast out into the stairwell. The door slides shut on a chaos of impending recursive lawsuits, and Manfred breathes a huge wheeze of relief.

Annette walks over to him and leans her chin on the top of his head. “Think it will work?” she asks.

“Well. The CCAA will sue the hell out of the company network for a while if they try to distribute by any channel that isn’t controlled by the Mafiya. Pam gets rights to all the music, her settlement, but she can’t sell it without going through the mob. And I got to serve notice on that legal shark: if he tries to take me on, he’s got to be politically bulletproof. Hmm. Maybe I ought not to plan on going back to the USA this side of the singularity.”

“Profits.” Annette sighs. “I do not easily understand this way of yours. Or this apocalyptic obsession with the singularity.”

“Remember the old aphorism, if you love something, set it free? I freed the music.”

“But you didn’t! You signed rights over—”

“But first I uploaded the entire stash to Eternity and several other cryptographically anonymized public network filesystems over the past few hours, so there’ll be rampant piracy. But that’s not the *point*. The point is abundance. The mafiya *can’t* stop it being distributed. Pam is welcome to her cut if she can figure an angle—but I bet she can’t; she still believes in classical economics, one minus one equals zero. Information doesn’t work that way. What matters is that people will be able to hear the music; instead of a Soviet central planning system I’ve turned the network into a firewall to protect freed intellectual property.”

“Oh, Manfred. You hopeless idealist.” She strokes his shoulder. “Whatever

for?”

“It’s not just the music. When we develop a working AI we’ll need a way of defending it against legal threats—”

He’s still explaining to her how he’s laying the foundations for the trans-human explosion due early in the next decade when she picks him up in both arms, carries him to her bedroom, and commits outrageous acts of tender intimacy with him. But that’s okay. He’s still human, *this* decade. *That, too, will pass*, thinks the bulk of his metacortex: and it drifts off into the net to think deep thoughts elsewhere, leaving his meatbody to experience the ancient pleasures of the flesh set free.

Copyright © 2001 by Charles Stross.