## Deep Pond

## Bartosz Milewski

"My friends say I'm fun," said Jade and giggled. She was reading from her tablet and playacting.

"I like to cuddle in front of the fireplace with a glass of red wine." She sat down in her chair and picked up her drink.

"I can cook..." She took a sip from her glass, took a peanut from a bowl and put it in her mouth.

Then she lowered the glasses on her nose and said, "My favorite author is Proust, especially Remembrance of Things Past."

"But I also like Winnie the Pooh," she added and looked up at Kenny.

"Okay, I got it," said Kenny. He thought for a moment then started dictating with his eyes closed.

"Dear Madeleine!"

Jade took the notepad and started writing.

"I was reading your profile, when I suddenly felt my heart brimming with emotion. I recalled a long forgotten scene from my childhood. I was running toward my home, crying. I don't remember why I was crying, just the overwhelming feeling of sadness and desperation. I opened the door and there she was, my mother, standing at the kitchen table, kneading dough with her large flour-dusted hands. I ran into her, snot dripping from my nose, cheeks wet with tears, and I buried my face in her apron. She put her hand on my head and said 'Here, here.' Just these words, 'Here, here.' And suddenly I felt like nothing bad would ever happen to me.

"I know it sounds silly: Why would reading your profile bring back this particular memory?

"I don't know. Maybe if we get together and talk, I'd be able to figure out more. I'm usually a pretty reserved guy, but I feel like I can be totally honest with you, and you wouldn't judge me."

Jade finished taking notes.

"Very nice," she said. "I think you got it."

\* \* \*

Maddie wiped her hands in the apron and opened her laptop. She logged into pond.com and started reading Kenny's message. She couldn't quite finish it, because her eyes filled with tears.

Maddie had been divorced for more than two years. During that time she put on quite a bit of weight, more than what she previously lost to chemo. Her husband George left her after the surgery, while she was still recovering from ovarian cancer.

They both wanted to have children. They used to talk about it a lot. They imagined having twins, two girls. George even gave them names, Abigail and Ingrid. They would grow up to be computer programmers, like George.

It didn't take long for the ex-husband to get another woman pregnant. He was now married. Despite his abandoning her when she desperately needed all the support she could get, Maddie would still occasionally exchange emails with him. She didn't cry for two years.

\* \* \*

"Double tall latte for here," said Kenny. That was his usual order at Lattica. He came here regularly because he liked Bree. She was the barista at Lattica, a boutique coffe shop. He more than liked her—he adored her. She smelled of hot milk. Kenny imagined sneaking behind her, inhaling her scent, and placing a gentle kiss in the sweet spot between her neck and her shoulder. It would send shivers down her spine. She would turn back and kiss him passionately.

But Kenny never followed up on this plan. He never strayed from the "Double tall latte" script, no matter how desperately he wanted to get closer to Bree. He knew that the moment he started the conversation, she would be his. All he had to do was to change the order to "flat white." It was that simple. He didn't even know what the difference was between a flat white and a latte. He just saw, in his mind, a vast flat plain covered with snow. And he knew that this secret spell would unlock Bree, open her up to him like a flower. And he didn't want that.

\* \* \*

Abigail was slightly disturbed. The change was subtle, but in her world it was significant. She noticed that the Pulse of the Universe was weaker on this side than it was on the other side. Somebody switched sides.

The Pulse of the Universe used to be constant before she left the safe place. Since then there were long periods when it was absent. And when she grew really desperate, it would come back; and with it, the warm nutritious sensation in her mouth. Powerful force would then compel her to start sucking, and life would flow into her body, filling her with bliss.

The warm sensation was there, and life was flowing, but the bliss was a tiny bit weaker.

\* \* \*

Ingrid's life just got better. She was promoted to the left boob.

\* \* \*

Bree lived in a white Chevy Express Cargo Van. It was a temporary arrangement, until she'd get back on her feet. The meager earnings at the coffee shop were not enough to let her rent a room. She was enrolled in a community college, ostensibly to study creative writing, but mostly to have access to the gym, where she would exercise and take showers. She used an internet mail-scanning service that provided her with a fake address in San Francisco. Last week she was parking her van every night at Walmart. This week she was using a church parking lot.

She drew the curtains between the cab and the back of the car. She didn't want anybody on the outside to see the light. She opened her notebook. She was supposed to write a few paragraphs for the class about a shape. It could be a sphere, a cube, or a cone. She closed her eyes and tried to imagine those shapes. She saw them suspended in the air and there was bright light behind them. She turned around and watched their shadows on the wall. She picked one—the perfect one.

\* \* \*

George opened the refrigerator. He couldn't sleep and he was hungry. It was quiet, Judy was sound asleep. He looked at the containers of low-fat yoghurt, yellowing stalks of celery, slices of chicken breast in a ziplock bag, a box of two percent milk, a carton of eggs... No lasagna. He was craving lasagna. He felt an emptiness in his stomach that could be only filled with homemade lasagna. He closed the refrigerator and listened to the humming sound it made in the still hour of the night. Then he opened the cabinet and pulled out a bag of flour. He measured two cups, formed a crater in the middle, added two eggs and a pinch of salt. He used the fork to incorporate the flour into the eggs. Then he started kneading the dough. He worked methodically until his hands began to hurt and beads of sweat gathered on his forehead. He covered the dough with a clean cloth, wiped his hands, and went to sleep.

\* \* \*

A perfect grape is spherical. It's full of pride and hope. It dreams of one day becoming noble wine, maturing inside an oaken barrel, aging in a bottle stowed away for years in a dark cellar; then being poured into a glass, looked through against the flame of a candle to reveal its color, sloshed around to unveil its bouquet, sipped slowly, maybe to complement a sumptuous meal, maybe just to pleasure somebody's senses.

Time passes, and no vintner picks the grape. It shrivels as it struggles against the heat of the sun. It turns brown and wrinkly. The closer it comes to death, the sweeter it becomes. It accepts its fate in peace.

\* \* \*

Kenny was walking toward a small coffee bar on a street corner. "I think I can see the subject," he said quietly. Jade was listening in a van parked across the street. She was watching him from behind a darkened window. She pulled out a camera with a telephoto lens and looked through the viewfinder. She could see a woman in her forties sipping a cup of coffee at a table facing the window. The woman was dressed well but not ostentatiously so. She pulled her phone from a leather handbag and checked the time. Or maybe she was checking messages. Jade snapped a few quick photos. Kenny entered the bar and looked around. He made a face as if suddenly recognizing the woman, and he smiled at her. He approached the table and said, "You must be Madeleine." Maddie smiled back.

A shadow obscured the view. Jade looked up from the camera viewfinder. Two policemen on bicycles, followed by a group of protesters. People were walking in silence. She lost sight of Kenny in the coffee bar. More people walked in front of the van.

"You must be the Miller," said the woman's voice in the headphones. "Is that your real name?"

"No, my name is Kenny," said the man's voice. "Miller is my Pond name."

"You turn grain to flour," she said.

"And you turn flour to bread," he said.

"I don't make bread any more," she said.

\* \* \*

The first thing George noticed after coming back from work was that the lasagna dough was still on the kitchen counter. It was just as he had left it last night, covered with a piece of cloth. He woke up late this morning and didn't have time to drink coffee before rushing to work. He forgot about the dough. Now it was sitting there like an accusation. He knew that Judith had seen it. Last time he left the dough in the kitchen, she didn't speak to him for two days. He ran to the bedroom. She wasn't there. She must have gone to her mother.

He was surprised how calm he felt. He poured himself a shot of whisky, then another. He got up, went to the counter and uncovered the dough. He looked at it for a moment, picked it up, and gently placed it in the garbage can. He leaned over the sink and closed his eyes.

\* \* \*

"What are you reading?" asked Jade. They were sitting in Kenny's kitchen in front of their laptops. Jade was going through some surveillance footage and Kenny was browsing the Internet.

"I followed a link on my Facebook feed that led to a website about UFOs," said Kenny. "There was another abduction in Russia, quite recently."

"Really?" said Jade, "Did they get any pictures?"

"No," said Kenny.

"Well, that's strange. It seems like all Russians have video cameras in their cars, in case the police demand a bribe. Apparently, it's quite a common occurrence in Russia."

"It happened near Novosibirsk, in the Academic Town," said Kenny. "Two people were taken and then returned the next day."

"How much vodka did they drink before the abduction?" asked Jade.

"You seem skeptical. Why can't you be more open minded?" asked Kenny.

"I am open minded," said Jade. "I just find all these abduction myths quite funny. Like, what's with that anal probing? Why would aliens do that?"

"I don't know," said Kenny, "You're the educated one. Can't you come up with a theory?"

"Okay. It's quite a challenge, but okay," said Jade. "Let's see. How about an alien civilization of parasites?" She paused for a moment, thinking. "What if intelligence evolved not on the surface of a planet but inside digestive tracts of some large land animals," said Jade.

"Go on," said Kenny.

"Imagine sentient worms that spend their whole lives in the guts of other lifeforms," she continued. "At some point they develop a civilization. They first explore their own planet; then they conquer space in their flying... artificial intestines."

"Not flying saucers?" asked Kenny.

"Well, the intestines could be coiled inside the saucers," said Jade, "And there is an opening at the bottom. A sphincter, if you will. The worms are quite small, so they ride inside big humanoid robots with almond-shaped eyes. And they look at people as potential hosts. Hence the anal probing. They come to Earth to do... apartment hunting."

"It makes perfect sense," said Kenny. "I often have a gut feeling about something, and I had no idea where it came from."

"And they like to pick rednecks as hosts," said Jade, "because they like their junk food diet. They like the slippery fatty French fries sliding by, not that abrasive fiber-rich roughage that can damage their precious equipment."

"Makes me hungry thinking of this," said Kenny "Gotta feed my passengers." He took a loaf of crusty sourdough bread from the breadbox, and cut himself a generous slice. He grabbed butter from the fridge and spread it thick on the bread.

"Maybe there's gold in it," he said to himself absent-midently.

As Jade was watching him, Kenny took a big bite and started chewing. His lips were glistening with butter.

"What the..." said Jade. "How the fuck...!" she said. "How did you know?" "Know what?" said Kenny with a full mouth.

"What you just did," said Jade. "With the bread and butter. What made you do it?"

"I have no idea what you're talking about," said Kenny.

"Damn you! You were not supposed to do that!" said Jade.

\* \* \*

The thick concrete buildings of the community college looked oppressive, a monument to the brutalist architecture of the sixties, but Maddie was able to find a friendly spot under a blooming cherry tree. She sat there on a bench with Bree.

"I loved your essay," she said. "It wasn't exactly what I expected, but that's what I like about this job—being constantly surprised. Most students wrote essays about geometry, architecture, or inanimate objects. But you wrote about life."

"Thank you!" said Bree.

"You seem to know a lot about wine. Are you a wine drinker?" asked Maddie.

"Not really; not currently," said Bree.

"I can't make up my mind," said Maddie, "Is the ending sad or happy? You speak of death and, at the same time, you speak of sweetness and peace. Which is it?

"No, that's a silly question. You don't have to answer." She smiled at Bree. "I guess, it's both. It's what you make of it," said Bree.

"You're still young," said Maddie. "Your wine years are still ahead of you. I myself am closer to turning into a raisin. But you know what? They make some great wines from shriveled grapes."

"You're right," said Bree. "The late harvest wines. Like the Sauternes."

"Exactly," said Maddie. "Although I don't think the noble rot has taken me over yet." She laughed. Then she lowered her voice and said, "I haven't told anybody yet, but I'm expecting."

"Wow, congratulations!" said Bree.

\* \* \*

"How's the training going?" asked Kenny. They were working together, this time in Jade's open kitchen. They were sitting side by side on chrome stools at the center island. Kenny was drinking beer straight from the bottle and Jade was sipping a Manhattan from a steel cocktail glass.

"Not so great," said Jade. "It's looking okay on the surface, but it's not effective. Here, let me read you something. This is what Aidan wrote to our Maddie."

'Dear Maddie'

"That's what her friends call her," said Kenny, "I thought Madeleine was a pseudonym. You know, with Proust and all..."

'Dear Maddie,' Jade continued. 'I'm a big fan of French culture. I travel a lot and, just last summer, I was in Paris on business. There is this little boulangerie on Rue Monge—I think it's called Eric Kayser—where I had the best croissant.'

"He's laying it on real thick," said Kenny. "Got cued on Proust and can't let go. Picked the food vibe correctly, though."

"Now, listen to this," said Jade.

'I think I can't stay in one place for too long. How about you? Do you like traveling to exotic lands? I know a spot downtown that serves Turkish coffee and sweets. Maybe we could meet there and chat?'

"What's that with traveling?" said Kenny. "My reading was that she was looking to start a family."

"I think you're right," said Jade. "Especially after the conversation the two of you had at the coffee bar."

"And don't forget Winnie the Pooh," said Kenny.

"Right," said Jade. "But there was also this strange 'I don't bake bread any more.' What did you make of that?"

"This could have been about her flailing career as a writer, but I might be wrong," said Kenny.

"Maybe," said Jade. "You have to remember that Aidan has access to all kinds of information. Maybe he knows something we don't."

"So did he get her?" asked Kenny.

"Nope, she didn't even bother responding," said Jade.

\* \* \*

"Hi Jim, It's George here. May I speak to Judy?

"Oh, she's busy? Yeah, it's kind of urgent.

"Okay, I'll wait.

"What happened, Jude? Why did you leave so suddenly?

"You should have left a note or something. I was worried.

"No, please, let's not go there again, okay?

"No, I just get these cravings at night, that's all. Your cooking is just fine.

"I mean, I love your cooking. And I don't take you for granted. Far from that!

"Of course, this is just temporary. While you're staying at home recovering. "So when are you coming back?

"Okay, give my best to your parents. Is Jim okay? He sounded like he had a cold.

"Okay, let's hope you don't catch it. See you on Monday then. Bye! Love you!

\* \* \*

Maddie was in bed. She had her laptop turned on. The house was quiet, the lamp on her nightstand provided just enough light to make the glare of the screen bearable. She started writing a children's story.

Long time ago, in a land far far away, there lived a dragon. It was a shedragon. She had beautiful opalescent scales, big thoughtful eyes, and a pair of powerful wings that could lift her lightweight body into the air. She could fly over the forests and mountains, rivers and streams that were criss-crossing her realm. She had fire burning inside of her, and it kept her warm during savage winters in that land far away.

In time, people started arriving in her kingdom and she welcomed them. They cleared some of the forests to grow wheat and barley, and they built a town they called Cracow on the banks of the river Vistula. From time to time kings from neighboring countries would send their armies trying to conquer Cracow, but the dragon protected the town. It was enough that she breathed her fiery breath, and the enemies would scatter in panic.

The people of Cracow appreciated her help, but were a little apprehensive of her power. They would bring her food offerings, mostly chickens and occasionally a sheep or a small pig. In general, they tried to stay away from her. Except for one person, a young cobbler's apprentice, who would regularly visit the dragon in her lair on the banks of the river Vistula. He was the only person who was not scared of her, and she enjoyed his company. He would bring his work with him, a last and a hammer, and he would repair shoes while basking in the warmth of the dragon.

But some people were not happy with the way things were. They started spreading rumors about the dragon. Even though the dragon never asked for food, and was quite happy providing for herself, they complained about the burden of the self-imposed offerings.

Then a disaster struck. It was a hot summer and the brush around the town was dry as pepper. It was a matter of time before an accidental fire started outside the walls. It didn't spread too far, thanks to the moat that surrounded the town, but it destroyed several buildings on the outskirts of the town. For no reason whatsoever, people started blaming the dragon for the fire. Then somebody came up with the idea that the only way to appease the dragon was to offer a human sacrifice. More and more people were convinced that the dragon demanded the sacrifice, and that she threatened to burn the town to the ground if her demands were not met. Preparations started in earnest to select a young maiden to be offered to the dragon to stave off the disaster.

The young apprentice initially laughed off the rumors, but as he heard the same news repeated by more and more people, and saw the preparations for the sacrifice, dark thoughts overcame his heart. He stopped his visits to the dragon's lair. This made the dragon quite unhappy. She missed his company more than she would admit to herself.

Then, one day, all of a sudden, the apprentice showed up again. He brought her a little gift, a sheep carcass, which she promptly swallowed in one big gulp. Not that she was especially hungry, or that she had a particular appetite for mutton, but she wanted to show appreciation to her friend. The apprentice, though, didn't stay very long. In fact he left in a hurry.

And then the pain started. The apprentice filled the sheep carcass with sulfur. He wanted to kill the dragon. In his folly, he believed that this was the only way to save the life of the young girl that was chosen to be sacrificed to the dragon.

The heat in the dragon's belly ignited the sulfur and it kept burning inside her. She ran to the river and started drinking water, but nothing could extinguish the fire. She kept drinking until her whole belly was swollen like a huge balloon. She belched toxic clouds of sulfuric fumes. The scales on her body fell off exposing sensitive skin.

The town's inhabitants were at first terrified by her screams of pain, but seeing her defenseless body, they came out in throngs and started poking her with pitchforks and hitting with stones. With all her remaining strength she dragged herself back to her lair, where the cruel townsfolk were too afraid to follow. She spent several months in excruciating pain. She lost most of her weight and strength. She could no longer fly. When the scales finally grew back, she left the lair in the middle of the night, never to come back again.

\* \* \*

"So, what's the new idea, George?"

Philip was George's boss at Neuromancers. He was younger than George, but this was already his third startup. The first two were disasters, but 'third time's a charm' he said and, as long as he was able to charm the investors, nothing could stop him from running another one to the ground. Except that this time he had George, a quiet unassuming guy who really knew his stuff. Philip had enough sense to make George the main developer and let him run the technical side of the business. George was good at turning cutting edge research into practical applications. His specialty was neural networks. Neuromancers' goal was to create an advanced AI to analyze people's online behavior and use it for targeted advertising. There was a whole cottage industry of similar startups, but Philip thought he had an ace up his sleeve.

"I just realized that we've been using only half of the equation," said George. "You see, the best way to train a neural network is to use both a carrot and a stick. So far we've been giving it carrots but we were, so to speak, sparing the rod."

"So what do you propose? Give it electrical shocks?" asked Philip.

"Well, when the user clicks on an ad, we know that it worked," said George. "We give the network positive reinforcement, and it can adjust its weights accordingly. But when the user doesn't click, we don't really know whether it's because they were too busy to read it; or they read it, but didn't bother to click; or maybe they saw it and hated it."

"Well, short of highjacking the user's camera to track their eyeballs, there's not much we can do," said Philip. "And, believe me, the eye-tracking idea crossed my mind. It's just too risky... at least I think so," he hesitated. "Or do you know how to do that without risking detection? I'm all ears."

"No," said George. "Nothing as nefarious as that. We just ask the user. In fact we already do."  $\,$ 

"Do we?," said Philip.

"We give them a button saying, 'Hide this message," said George. "Didn't you notice that our sponsored content, the 'suggested post,' has the 'hide ad' button? It even says, 'See fewer ads like this."

"Oh yes, I've seen it," said Philip. "I clicked it a few times but then gave up."

"Exactly!" said George. "You gave up because, in the place of the offending ad, another one would soon appear. I thought about it, and..."

"And...?" Philip prompted.

"And I figured out that we can apply the same method to our users as we do to our AI. We have to train them. But we have to offer them a better carrot." "What do you mean?" asked Philip.

"Well, we have to reward them. Every time they hide an ad, we'll give them, say, a day or two without ads. And then we'll gradually re-introduce them. Until the next time they work for us, and so on."

"You are an evil genius!" said Philip. "I mean, I admire your technical skills," he corrected himself. He knew that George had some ethical qualms about what they were doing. On the other hand, George needed the money to pay the mortgage on his new house, not to mention supporting his wife who stayed at home recovering from some unspecified health problems. It was rumored that she had a miscarriage. She's been also known to have expensive tastes.

"All right then," said George. "I'll get right down to it and work out a proposal." He awkwardly backed out of Philip's office and closed the door behind himself.

\* \* \*

"Did you pitch your idea to Phil?" asked Dmitri. "What did he say?" "I think he liked it," said George.

"You know, last year I took my girlfriend Nastia to San Francisco for a weekend. We went to a fancy restaurant and had a wonderful dinner. It was the summer, and it got really hot. We stayed at a B&B. Our room had an air conditioner so we turned it on. Unfortunately the air conditioner was really loud. It was impossible to sleep with that infernal noise, so we turned it off.

"I don't know what it is with you Americans, but you seem to be impervious to noise. Our air conditioner was off, but the other couple that stayed in another room had theirs on the whole night. I thought of knocking on their door in the middle of the night and tell them to turn it off, but Nastia wouldn't have it.

"So today I can't tell you what wonderful dishes we had for dinner that night, because all I can remember is tossing and turning in bed till early morning and cursing the noisy air conditioner."

"Sorry to hear that," said George, "but I don't understand what made you think of that right now?"

"You see, the next morning I opened my laptop and wrote a scathing review of the B&B. Why did I do that? In all likelihood we'd never stay there again." "To warn other people?" suggested George.

"But why would I want to warn people I don't even know?" said Dmitri. "I finally realized why we, guys like you and me, feel obliged to give unsolicited feedback, even if it brings no personal gain to us. Where does this compulsion to punish bad actors come from? And, occasionally, to reward the good actors as well. What does it remind you of, George?"

"I guess this is how we train neural networks," said George. "Are you saying that we are generating a training set for some neural net? The network of B&B's in this case? I mean, if enough negative reviews pile up, the connection between this B&B and their clients will be weakened or even severed. I can see that."

"And it's not only B&B's," said Dmitri. "We do this in all our social interactions. Granted, some of it can be explained as playing the iterated prisoner's dilemma. If the interaction with the same people is repeated many times, rewarding them for collaboration and punishing for betrayal is in our long-term interest. But we do it also with people or institutions we are never going to interact again."

"I guess there is an evolutionary advantage to the society as a whole," said George, "to have individuals perform this kind of training. I'll think about it next time I rate a restaurant or write a review of a B&B."

\* \* \*

The big-boobed being was still around, but the big scratchy being had disappeared. Ingrid felt a little apprehensive about it. The big scratchy being would lift her up and make joyful noises, and that was fun.

She was able to see things in more detail now. And she finally figured out the finer motor controls, and could grab the nose of the person who was leaning over her crib. The texture of a nose was soft and squishy. The texture of the chin could be scratchy or not. That's how she distinguished between the booby person and the scratchy person. As long as the booby person was around, things were fine.

Abigail was exploring the Universe. Ever since she lost her most privileged position at the left boob, she was looking for explanations. None were coming. That only made her work harder. For instance, why was it so hard to stop crying once you started? she asked herself.

\* \* \*

Days were getting noticeably longer—there was still light when Bree left the gym. Her hair was wet, but the air was still, so she didn't feel the cold. She was surprised how much pleasure she took in attending the classes and doing the homework. She never considered herself a creative person. Being a dreamer got her in trouble many times before. But here, surprisingly, it was considered a plus, a talent. She smiled to herself.

Somebody pushed her from behind so hard that she stumbled and almost fell. At first she thought it was an accident, or a prank, but when she turned around she recognized Jeff. Before she could regain balance, he pushed her again; this time she fell and scraped her hand on the pavement.

"You thought you could hide from me?" Jeff said through clenched teeth. "We are not done! Not until I say so." He leaned over her, grabbed her by the collar of her jacket, and lifted her up, only to throw her against the wall. His

hand squeezed her throat. Bree's face turned red, tears were running from her eyes. She tried to push him away, but he was stronger.

"You thought you could run from me?" His face was so close to hers that she could smell alcohol in his breath. She tried to turn her head away. He punched her hard in the stomach with his other hand. She gasped.

"I'm calling the police!" A shout came from behind. It was Maddie, who appeared out of nowhere with the phone in her hand. Jeff let go of Bree, who bent down trying to catch her breath. She was gripping her throat with one hand and waving towards Maddie with the other.

"Please, don't," she managed to say.

Jeff turned around, looked at Maddie, assessing the situation. "We are not done yet! I know where to find you," he said to Bree.

"And you," he turned to Maddie, "better not stick your nose in other people's affairs." He walked away quickly, looking around to see if other people were paying attention. They weren't.

Maddie ran towards Bree. "Are you okay?" she tried to lift her up. "Do you know this guy?" she asked.

"I do," said Bree.

"I should call the police," said Maddie. She was still holding her phone.

"Please, don't," said Bree. "This will only make things worse."

"Come here," Maddie led Bree to the bench and sat down with her. She offered her a tissue from her purse. Bree wiped her tears and blew her nose.

"Who is he?" asked Maddie.

"He's my husband, Jeff," said Bree. "I ran away from him, but he's found me now." Her hands were shaking and tears filled her eyes again. "I don't know what to do," she said. She looked at Maddie. Her chin was quivering. Maddie's eyes filled with tears too. She pulled out another tissue for Bree and one for herself. She hugged Bree and took a deep breath.

"Here, here. We'll figure something out," she said.

\* \* \*

"Most people completely misunderstand Shakespeare," said Jade. She was giving a talk to software developers about the marketing strategy for their new big client.

"Have you ever asked yourself the question," she continued, "why Juliet fell in love with Romeo?

"Of course, young people are predisposed to falling in love because of raging hormones and the evolutionary pressure to procreate. That much is obvious.

"Juliet's neural network was trained through generations of successful ancestors to pick the best mate. Romeo was a reckless youth with strong leadership qualities, therefore an excellent mate. That is... if they lived in a huntergatherer community. As far as I know, and I'm following Shakespeare here, they weren't."

She paused, maybe expecting some giggles, but none were forthcoming from the reserved audience. "The genius of Shakespeare was in realizing that the system we are using for making life-changing decisions has been trained with data from our cavedwelling past. When Shakespeare said, 'All the world's a stage,' he meant that we were actors in a play for which we didn't rehearse. We have memorized the wrong lines. There would be no tragedy if Romeo killed a saber-toothed tiger instead of Tybalt.

"But the real hero in Romeo and Juliet is the pharma. At the very beginning of the play we learn that Romeo is suffering from depression. This is apparently caused by his unrequited love for Rosalinde, one of Capulet's nieces. But we know now that depression is the reaction to the artificial social contracts of the agricultural—as opposed to hunter-gatherer—society.

"Juliet has the same problem: soon after her secret marriage to Romeo is consummated, she refuses to be the 'joyful bride' to Paris. That's when the Friar Laurence steps in, offering a pharmaceutical solution to Juliette's problems. Interestingly, Romeo also seeks help from the pharma, although his drug of choice seems to be much more potent. The apothecary is reluctant to sell Romeo the medicine, wary of side effects, but Romeo tells him that it's the money not the medicine that is the poison. He actually calls the medicine 'cordial not poison.' So he realizes that money, which symbolizes the new social compact, is the real problem.

There is very little we can do about the social system, but we have made big strides in improving the human condition through pharmacology. Modern day Friar Laurence would be able to induce Juliet's coma with fewer complications, and the apothecary could offer Romeo a selection of antidepressants that wouldn't kill him.

So this is how we are going to promote our new client's business. We are working with the leading pharmaceutical company that has just come up with a new revolutionary line of antidepressants and antipsychotics. We will rewrite Shakespearian tragedies by adding happy endings. The young lovers will be properly medicated and will live happily ever after. Hamlet's visions of his dead father will be cured with a potent antipsychotic. Lady Macbeth's OCD will be controlled with SSRIs. And so on.

Our new slogan is: 'No more drama!'

\* \* \*

After the incident with Jeff, Maddie offered Bree a ride. Bree tried to politely refuse, but Maddie insisted. Bree finally gave in, but asked to be let out one block from the church where her van was parked. Maddie drove away, but then changed her mind and turned around. She wanted to make sure that Bree got safely home. She saw her walk into the church parking lot. She got out of her car and followed Bree. She saw her enter the van. It took her a moment to realize that Bree was homeless.

In the divorce settlement, Maddie was given the apartment that George and she bought together. It wasn't a big apartment—two bedrooms and a living room with an island kitchen. After much convincing that it wasn't a burden and—quite the opposite, she would enjoy having a housemate for a change—she offered the spare bedroom to Bree. Bree insisted that she would pay a small rent and help with the chores.

\* \* \*

Kenny was feeling restless. He finished the leftover pizza from the refrigerator and washed it down with beer. He turned on the TV, watched a few commercials, got bored, and turned it off. He toyed with the idea of going out for a drink, maybe talking up a lonely woman at a bar. For some reason he didn't find it exciting. He took out his phone and started mechanically scrolling through the address book. He stopped at Maddie's phone number and stared at it for a moment. Why would he want to talk to this woman? He couldn't come up with a good reason. He was not attracted to her. He wasn't interested in discussing literature with her. Jade would probably disapprove of a meeting without first discussing the agenda and setting up the surveillance...

He pressed the call button.

Apparently, Maddie had nothing better to do either. She agreed to meet Kenny at a downtown bar. Kenny picked a Mexican joint that wasn't too loud—he wanted to have a conversation. He ordered a Corona and Maddie ordered a frozen margarita and a bowl of home-fried tortilla chips.

"I was married once, too," said Kenny.

"What happened?" said Maddie.

"She cheated on me," said Kenny. "In the beginning I didn't really mind, because she cheated with a woman. You know, I kind of thought it was sexy. I mean, she wasn't really cheating—she told me about it beforehand, and asked my permission. I said I was totally fine with that. And I thought I was. Especially because it really spiked her sex drive, and she became more adventurous in bed, if you know what I mean."

"So what went wrong?" asked Maddie.

"It's hard to explain," said Kenny. He took a long sip of his beer. "Do you know what synesthesia is?"

"It's when your senses cross paths," said Maddie. "For instance, when different letters appear to have different colors. Like, vowels are red, and consonants are blue."

"Right," said Kenny. "I have a rare kind of synesthesia. When I do this," he leaned forward and tapped Maddie on the shoulder, "I can feel the touch on my shoulder. It's called mirror-touch synesthesia."

Kenny's gentle touch sent a small electric shock down Maddie's arm. She instinctively retracted her hand. She took a quick sip of her margarita. The ice was already melting and the straw pulled the liquid from the bottom of the glass.

"Actually, mirror-touch synesthesia is not that uncommon," continued Kenny. "What's rare is the way I react to speech. When somebody talks, I feel like they are touching me. I can't describe it."

"Say 'bread'," said Kenny. "Go ahead, say it."

"Bread," said Maddie. Kenny winced.

"Right here," he touched his heart. "I feel it right here. There is something, some emotional connection, between you and bread.

"Remember when we first met?" he said. "You said 'I don't make bread any more.' I almost freaked out, it was so strong. One of these days I'm going to have a heart attack, just from emotional overload."

Maddie looked at Kenny with wide eyes.

"You're scaring me," she said. She touched her heart too. "How's that possible?"

"I have no idea. It just happens," said Kenny.

"So how is this related to your ex wife?" asked Maddie.

"She was the one person that I was safe with. She didn't touch me this way. We could talk about anything, and nothing would happen to me. I liked that."

"And then I felt it," he said. He squeezed a tortilla chip between his fingers until it crumbled.

"I felt it every time she mentioned strawberries. At first I was puzzled. Why strawberries? They were in season at the time, so they would occasionally come up in conversations. And it was always as if something touched me on the lips. Like a butterfly. Sent shivers down my spine."

"So what was it?" asked Maddie.

"The song," said Kenny. "They had a favorite song. Strawberry fields forever. The Beatles."

"How did you find out?" asked Maddie.

"She told me," said Kenny.

\* \* \*

- "Any recent changes in weight?" asked Dr. Joy
- "Maybe added a pound or two," said George.
- "Sleeping problems?"
- "I started waking up in the middle of the night. Can't go back to sleep."
- "What do you do when you can't sleep?" asked Dr. Joy.
- "Turn on my laptop. Or make pasta."
- "Pasta?" asked Dr. Joy.
- "Lasagna," said George. "I make lasagna dough."
- "Family problems?"
- "Yeah. You could say so. My wife gets upset when I make lasagna dough."
- "Why's that?" asked Dr. Joy.
- "Long story..."
- "We have time."
- "She thinks I make lasagna because I miss Maddie, my ex wife."
- "Is that true?" asked Dr. Joy.
- "Can we not talk about it?"
- "Sure. Any suicidal ideations?"
- "Do I think of killing myself? Doesn't everybody? I mean, as a thought experiment?"

"No," said Dr. Joy, "I don't. But patients who are depressed often do."

"Do you think I'm depressed?" asked George.

"Do you?" asked Dr. Joy.

"I'm going through a rough patch right now. But it will pass."

"Do you self-medicate?" asked Dr. Joy. "For some people smoking weed helps, others drink. How much do you drink?"

"A drink or two a day," said George. "Mostly scotch. Is that too much?"

"It depends," said Dr. Joy. "Any history of alcoholism in the family?"

"Not really," said George.

"Then I wouldn't worry. I could prescribe you an antidepressant, but frankly, if alcohol works for you, you should stick to it. Definitely fewer side effects."

"But doesn't alcohol interfere with sleep?" asked George.

"So they say. Some of my patients use Benadryl to help them sleep. Do you have any allergies?"

"Yes, I'm allergic to pollen. I get hay fever every spring."

"There you go, you can kill two birds with one stone," said Dr. Joy.

"I gotta go now," said George.

"Okay," said Dr. Joy. "We should talk about the ex-wife situation next time."

"Sure," said George.

He shut down the app, closed the laptop, and got up from his kitchen table. He took the bottle of scotch from the liquor cabinet and poured himself a drink.

"Just what the doctor ordered," he said to himself.

\* \* \*

"Another margarita?" asked Kenny.

"Sure, why not," said Maddie. Kenny gestured towards the barman and ordered another round.

"So, I guess, you can see right through me with your special powers," said Maddie.

"You are an open book," admitted Kenny. He smiled sheepishly.

"Wait," said Maddie, "Does that mean you have figured me out the moment you read my pond profile?"

"Pretty much," said Kenny. "Does that bother you?"

"Yeah, it kinda does. I feel... I feel manipulated."

"But isn't the whole dating scene an exercise in manipulation?" said Kenny. "We want the other person to like us, so we exaggerate our positives and hide our shortcomings. In fact, aren't all human interactions based on deception? Tell me, were you a hundred percent honest when you wrote your profile? Or did you hide something?"

"Well, there are some things that you only disclose to your closest friends," said Maddie. "You want to first get to know somebody before you start sharing your most intimate secrets."

"Granted," said Kenny. "But realistically, I don't have any superpowers. I may have a vague feeling that you are hiding something, but I can't tell what it is."

"And I'm definitely not going to tell you," said Maddie. "I'm sure there's stuff you're not telling me."

"You're right," said Kenny. "Guilty as charged," he smiled and raised his beer. "At least we are both honest about not being honest. That's more than most people can say."

"So, does this ability of yours help you in life?" said Maddie. "I sometimes wish I knew how other people felt about me. Friends, coworkers... Does this help you at work?"

"I mostly work with programmers," said Kenny. "These guys are pretty easy to read. You don't need any special abilities, just common sense. But I have one coworker who's pretty much inscrutable. The woman is in total control of her emotions. I mean, she's got her shit together. Almost reminds me of my ex." Kenny took a sip of his beer. "I got a reading on her just once, purely by chance. She's a big fan of Marlon Brando. She has quite a collection of his movies on her computer."

"How did you know what she had on her computer?" asked Maddie.

"Let's just say, your computer is not as private as you might think," said Kenny.

"You spied on her," said Maddie.

"Purely by chance, as I said."

"So what about Brando?" asked Maddie.

"I acted out a scene from one of his movies," said Kenny. "And, boy, did I get a kick out of it."

He finished his beer and looked at Maddie expectantly.

"Oh, yes," she said. "Here it is."

She handed Kenny an envelope and he passed a little package to her under the table.

\* \* \*

Bree came back from work late, but Maddie wasn't home yet. Bree assumed that Maddie had some social life. She must be seeing somebody. Maybe the father of the child she was expecting. Bree tried to be discreet so, when they talked, she didn't ask any questions about Maddie's private life.

She was tired after a long shift at Lattica. She decided to grab a book, curl down in her bed, read a little, and then fall asleep. She looked around Maddie's living room for a book that would be interesting enough, but not too stimulating to keep her up late. Something light and entertaining. Maybe a book of short stories. She picked up Italo Calvino's "If on a winter's night a traveler." That's definitely too stimulating, she thought. There was a whole shelf of postmoderns, Cortazar, Borges, Murakami... Bree was scanning the titles when she noticed a stack of notebooks at the end of the shelf. She picked up one and opened it on a random page. It looked like Maddie's journal. It was

something about surgery. Bree quickly closed the notebook and put it back on the shelf. Then she hesitated. She didn't want to invade Maddie's privacy. On the other hand she wanted to know more about her teacher, and now a housemate. What is worse—she thought—being indiscreet or indifferent?

She started reading.

"When I woke up after surgery, I didn't immediately open my eyes. I wasn't sure where I was or what was happening, but it didn't matter. I didn't feel any pain. The absence of pain was so intense, it was an experience in itself. I was savoring it like a piece of ripe juicy fruit in my mouth.

"What does one need to be happy? I thought. Nothing, really, as long as there's no pain. Then I slowly opened my eyes. There was bright light. The ceiling of the recovery room was white. I was submerged in the warm cocoon of a heated blanket. The heart monitor was beeping softly in the background. I could hear people speaking behind the partition that separated me from the rest of the world. I didn't understand the words, but it was reassuring to hear them. These were good people, I thought, people who cared about me. I was surrounded by invisible people who loved me. I could feel the love like never before.

"It felt good to be powerless. To relinquish control over everything, to let total strangers take over my life. To submit and to trust.

"A nurse materialized as if from nowhere. She smiled at me and I smiled back. I never felt such a close connection with another human being. It was wonderful. She asked me how I was doing, and I said, "Never better." She said the surgery was a success and that everything would be all right. She showed me how to operate the morphine pump that was going directly to my vein. I thought, what a wonderful contraption. I wondered why they were keeping it secret. Why didn't they make it available to every human being on this planet? It would solve so many problems.

"The nurse had left and I was alone for some time, but I didn't feel lonely or bored. There were so many new things to experience, to feel for the first time. This must be how an infant perceives the world, I thought. I listened to my pulse amplified by the monitor. Every beat was like a different person, living a full and complete life that lasted a fraction of a second. I started conversing with these people in my mind, and then I was talking to George. I don't know when he showed up, but he brought a bunch of yellow roses and a box of chocolates that he put on my nightstand. He said he talked to the doctor and that everything would be okay. 'I know,' I said and squeezed his hand. 'I know it will be all right.' He blinked several times in quick succession, which meant he didn't think so, but he wasn't comfortable talking about it at that particular point in time. He wasn't dealing with my cancer very well."

Bree heard the steps outside and quickly put the notebook back on the shelf. She turned off the light and quietly sneaked into her bedroom. Maddie fumbled with the keys longer than usual, unlocked the door, and let herself in. Bree heard her pouring a glass of water before she went to the bathroom. Bree undressed quickly and went to bed in darkness.

\* \* \*

A school bus full of kids pulled in. There was a long line of cars, mostly SUVs, parked in front of the school, with parents waiting for their children. Jade was observing the scene from the van. A silver Toyota 4Runner pulled up. The driver, a blond woman in her late forties, parked the car, got out, and waited. Jade recognized the car and the woman. Her name was Carol Botha. Her husband came from a South African Boer family and was a successful oncologist.

The boy Carol was waiting for appeared at the entrance. He looked around and noticed his mom. His name was Luke. Jade instinctively reached for the camera, but stopped herself. She already had lots of pictures of the boy. Luke was dark-haired, his eyes were almond-shaped, just like Jade's. He ran towards Carol, who let him into the car. They drove away.

Luke's real father was Jean Pierre. Jade met him twelve years ago, when she was studying philosophy in Paris. Jean Pierre was eight years older than Jade and was happily married. That didn't stop him from having an affair with his student. He called Jade La Chatte Noire, which could be translated as a Black Catwoman or, in moments of passion, as Black Pussy. There was plenty of passion.

Jean Pierre rented a little garçonnière in Montmartre. They would go there once a week before—and sometimes also after—dinner. They had a favorite brasserie that served an enormous seafood tower—a vertical arrangement of trays filled with mollusks, crustaceans, and fish. Jade was never sure what she enjoyed more: the food, the sex, or the conversations with Jean Pierre. Luckily, she never had to choose.

They were careful and used protection most of the time. But accidents happen, especially after you drink lots of champagne. When Jade got pregnant, Jean Pierre immediately offered to arrange and pay for the abortion. Jade agreed and even went to the clinic. She was alone—she didn't want Jean Pierre to accompany her. She sat in the waiting room desperately trying not to think about the little unwanted passenger in her uterus. Whether it was the hormones that kicked in, or her imagination showing her pictures of a little boy that could be, something broke inside her and she started sobbing uncontrollably. She ran out of the doctor's office. The next day she packed her things and took the first flight back to Seattle. During the next eight months she regretted her decision almost every day. Her parents were supportive, once she told them that she would give the child for adoption and finish her studies in the States—which she did.

\* \* \*

<sup>&</sup>quot;Are you struggling with depression?" read the ad.

<sup>&</sup>quot;What the heck?" said George. "Why am I seeing this ad?"

<sup>&</sup>quot;What ad?" asked Dmitri from the adjoining cubicle.

"Oh, some stupid anti-vaxxer ad," lied George. He wasn't comfortable talking about depression, especially with a coworker.

"Maybe your wife has googled it," said Dmitri.

"You're kidding me!" said George.

"No, I'm serious," said Dmitri. "Last week my girlfriend, Nastia Ivanovna, googled a hotel in Hawaii for our holidays. The next thing in my newsfeed was an ad for Four Seasons in Kona. If I were you, I'd check my wife's browsing history."

"Maybe it was just a coincidence," said George.

"That used to be my first guess, too," said Dmitri. "Our minds don't like coincidences, so we always try to explain them by introducing some hidden agency. Superstition, magic, religion... But nowadays we are finally capable of creating an actual hidden agency and giving it power over our lives."

"Nah! Must be some glitch in the algorithm," said George.

"Suit yourself," said Dmitri.

George got up and walked to the coffee machine. He looked for his mug, but he couldn't find it, so he poured some coffee into a plastic cup. It burnt his hand, so he put it down. He closed his eyes and took a deep breath.

\* \* \*

"This is the best lasagna I've ever had," said Bree. "Is this a family recipe, passed from generation to generation? Is your family Italian?"

"Nothing like that," Maddie smiled. "It's really simple. You make the dough and the sauce from scratch. The ingredients are simple and the techniques are basic, but it takes a bit of time, that's all."

"You make it sound so easy," said Bree.

"More wine?" asked Maddie.

"Please," said Bree. Maddie poured the rest of the wine, dividing it equally between the two glasses. She took a sip.

"I don't want to pry," she said. "If you don't want to talk about it, it's fine. But I thought..., you know... Sometimes talking to somebody helps."

"It's complicated," said Bree.

"It's never simple," said Maddie. She was hoping Bree would open up, but there followed an awkward silence. Bree was staring at her wine, either unwilling or unable to talk.

"My husband left me when I was sick in a hospital," said Maddie. "I hated him for that. 'In sickness and in health' we vowed to each other. 'Till death do us part.' I guess it was me who cheated, because I was supposed to die. I cheated death. Marriage vows were written for the times before modern medicine.

"Why do people bring up sickness and death at such a joyful occasion? A man is taking a healthy woman for a wife, a woman who is supposed to bear him children, not get sick and die. Don't you think?" she looked at Bree.

"I think we shouldn't look at marriage just like another transaction," said Bree. "But we do, don't we?" said Maddie.

"Excuse me, can I get a refund for my wife? She was defective," Maddie laughed.

"Well, my husband George was defective, too. He couldn't deal with pain. He couldn't deal with suicide."

"Did you...?" asked Bree.

Maddie looked down.

"His father killed himself. He blew his brains when George was a teenager. George never told me about this. I learned about his father's death from his mother. She approached me after the divorce. Trying to excuse him, I guess."

"That's horrible," said Bree. "It must have been a very traumatic experience for him."  $\,$ 

"He never got over it," said Maddie. "That's why I can't really be mad at him," she sighed, "can I?"

"It's never simple," said Bree.

They were quiet for a moment, then Bree looked up from her glass and said, "Jeff and I had been separated for five months. He must have gotten the divorce papers just now. He's not always like this."

"Girl! You get away from this man!" said Maddie.

\* \* \*

"Shit!" said George. He was looking at his screen.

"National Suicide Prevention Week is Almost Here." It was a message from afsp.org

"What happened?" Dmitri rolled his chair out of his cubicle and looked at George with curiosity.

"Damn it," said George. "Is there no privacy in this world?"

"Sorry, comrade," said Dmitri. "I didn't mean to pry."

"No, I didn't mean you, Dmitri, I meant the Internet. You try one stupid app and suddenly all social networks are gossiping about you."

"Of all people, you shouldn't be surprised," said Dmitri. "That's what our job is, in this company. Gathering information about human activity, feeding it to neural networks, and letting them decide what to feed back to humans. Are you human, my friend?"

"Yeah, I'm human, and not very proud of it," said George.

"Well, then don't expect to be treated differently. This is the future, whether you like it or not. You see, we are creating Heaven on Earth by making sure all our needs are satisfied. First we'll make sure everybody has enough food and drink and a roof over their head. Is that bad? Then we put you in front of your entertainment system, a TV, a computer, a cell phone, and feed you information. We figure out what you like most and give it to you."

"Is that your vision of heaven?" asked George. "What you're describing looks more like feedlots for cattle. You're in the wrong industry."

"First of all," said Dmitri, "feedlots are built to maximize the production of meat. Here we are talking about maximizing human satisfaction. We are not

proposing to fatten up our subjects and then kill them for meat—although if they choose to consume more calories, we are not going to discourage them. We show them images of food and drink only to make sure that they are aware of their choices.

"Second of all, our feedlots are personalized. We are no longer using the shotgun approach. We try to learn everything about you as an individual, so we can serve you better. We are not forcing anybody, we are not inciting violence against anybody, we're just serving information."

"You mean, we are pimping information," said George. "We're not teaching people quantum mechanics or literature, we're pimping useless information about celebrity gossip, a hundred ways to lose weight without cutting down on junk food, about flat-earth theory, and alien abductions."

"Slow down, comrade George. Are you proposing that we only feed people information that was certified for consumption? And who is going to decide what's good and what's bad? A central committee? Now you're scaring me. My family didn't flee one totalitarian regime only to serve another."

"So what are you proposing?" said George. "That we let neural networks, the AIs, make these decisions for us?"

"And what if we do?" said Dmitri. "Humanity has had its chance. We've been at it for thousands of years, trying to create a just and decent system, and what do we have to show for it? So, what I'm saying is, give AI a chance. It can't do worse than we did."

"Yeah?" said George. "And what if it does? Even the worst dictators eventually die. AI could go on forever."

"As long as a human holds the off switch, we'll be fine," said Dmitri.

\* \* \*

The creative writing class was almost over.

"I'm going to give you an unusual assignment," said Maddie. "As you well know, when we write fiction, we make things up. Or, to be blunt—we lie. I find it fascinating that, in order to reach some deeper truth, we have to lie.

"When Kafka told us that Gregor Samsa woke up one morning and realized that he had turned into an insect, we knew he was lying. Well, maybe Kafka knew somebody who's name was Gregor Samsa—probably not—but people don't turn into insects overnight. Kafka had to make this strange metamorphosis up, in order to make the reader understand—no, not understand, to feel, to have a gut reaction to—the utter alienation a person can experience. A writer not only lies, he or she manipulates the emotions of the reader. Think about it! If you want to be a good writer, you have to lie, cheat, and manipulate.

"So your next assignment is to go to a dating website, read a few user profiles, and write your own. You don't have to post it, just write one and bring it to class. Be aware of every little lie, every manipulation you'll be attempting. Your goal is not to tell the truth, all the truth, and nothing but the truth about yourself. Your goal is to make the other person like you. You

want the other person to react emotionally to what you're writing. You want them to fall in love with your writing. And that is literature in a nutshell.

\* \* \*

George was working late. It was dark outside. Fluorescent light made the office feel like a hospital, or a morgue. George was alone at his computer. He was looking at the long list of bugs that have to be fixed, but he couldn't concentrate.

Dr. Joy was a program that used the company's neural network to provide psychological counseling. It wasn't a commercial product, they just used it as a proof of concept. They trained it on thousands of recorded interactions between professional psychologists and their patients. Just how the company got the transcripts was a mystery.

What George was curious about was whether Dr. Joy shared the information from her sessions on social networks. That would explain the sudden appearance of unnerving messages about suicides in George's feed. The only way to check that was to access the source code of Dr. Joy. The problem was, George didn't have access rights to the code repository in question. As the project lead, he could ask for the permission, but he didn't want to explain why he needed that. Neuromancers was a need-to-know kind of company. Lots of secrets...

George knew that Dmitri had access to Dr. Joy. He could try to impersonate Dmitri, if he only had Dmitri's password. George got up, walked up to Dmitri's cubicle, and looked around. It was strictly against company policy to write down your passwords, but most people did it anyway. George noticed a post-it on Dmitri's monitor with a short message in Cyrillic. It looked like Coδακα57. How do you enter Cyrillic alphabet on a standard keyboard? George went back to his cubicle and Googled the information about Russian programmer's keyboard. He jotted down key combinations for the letters in Dmitri's password. He also popped up a virtual Cyrillic keyboard, and entered Coδακα. The English translation was "Dog." The password couldn't be Dog57, though, because the minimum length of a password enforced by their system was seven characters.

George went back to Dmitri's cubicle and entered Cοδακα57. It didn't work. "Damn it! I bet he used the name of his childhood pet."

\* \* \*

My parents named me after a French cheese. In the little settlement in Alaska, where I was raised, people had little contact with European food so, luckily for me, I wasn't teased about my name by kids in school. I was teased about everything else, though. My parents were hippies... should I say more? That's why I list resilience as my major strength.

My favorite movie is 'The Cook, the Thief, His Wife & Her Lover.' It was released the year I was born. If you haven't seen it, you should. Watch for

Pup, the boy soprano, with angelic voice. My dream was to learn to sing like him. I also liked the idea of pricing food according to its color. Black being the most expensive, because it reminded people of death.

I miss snow. Snow covers all imperfections. It covers the ugliness that humans brought to nature. After the snow is gone, you can see what was below. It could be a beautiful meadow dotted with wildflowers, or an ugly trash dump.

What will I see after I melt your snow?

\* \* \*

"Did you know that the first living being to orbit the Earth was a dog? Her name was Laika, and she was sent to space on board of Russian Sputnik 2 in 1957."

George was checking his feed, and that was the 'Suggested Post' selected especially for him by the friendly software running the social network. His jaw dropped. This is getting creepy, he thought to himself. He didn't say anything, because Dmitri was working at his computer in the adjoining cubicle. George didn't want to alert him. But this could not have been a coincidence, he thought.

George analyzed his actions from last night. He did ask the Internet to translate the Russian word for dog. But he never typed the number 57. Okay, he did, but that was on Dmitri's computer, in response to a login prompt.

Am I being paranoid? George asked himself. Or is something fishy going on? The login prompt was part of the operating system. It wasn't going to the Internet. Unless... unless Dmitri's computer was infected with a virus, a rootkit, that logged his keystrokes. But how would the AI that ran advertising for the social network get access to the rootkit?

"Hey, Dmitri," George called out to his neighbor. "What kind of antivirus are you running on your box?"

"Kaspersky Lab's, of course," answered Dmitri.

"Isn't that the guy who was buddies with Putin?"

"Indeed, my friend," said Dmitri. "Putin's personal intervention saved Kaspersky's son from the hands of kidnappers. It was a big story in Russia. The good old KGB caught the perps in no time."

"Um," said George. "Doesn't it bother you to give root access on your computer to software written by Putin's drinking buddy?"

"Why would Kaspersky spy on me?" said Dmitri. "I have nothing to hide."

"Except the company's proprietary data, your credit card numbers, your social security number... should I go on?"

"Look," said Dmitri. "I'm sure Kaspersky's software was thoroughly screened by competitors, like Norton, or McAfee. They would raise a big stink if they found anything."

"I hope you're right," said George.

He was going to stay late again and try to break into Dmitri's computer; this time with a better guess at his password. He still didn't understand how the AI could figure out Dmitri's password—if that's what it did—and why would it sneak such an obvious hint to George.

\* \* \*

The virus was spreading rapidly. It used deception: By wearing a nondescript protein coat, it presented itself to an epithelial cell as an old friend. Once it breached the cell's membrane it dropped the coat and was quickly picked up, posing as a trusted source of genetic information, by a ribosomal publishing house. Its copies started flooding the cell. At first, the cell was elated. It was humming with activity like never before. Mitochondria were burning with energy, protein factories were working at capacity making coats for new viral conscripts. The cell started swelling until it burst, releasing a fresh army of viruses, which immediately attacked neighboring cells.

Ingrid sneezed, sending millions of little capsules of mucus populated with viruses into the air. Some of them were promptly inhaled by Abigail, only to wage a new war on her unsuspecting cells.

The twins were sick.

\* \* \*

"What's this?" Bree pulled out a small jar from the refrigerator. "Oh, it's 'pasta madre'," said Maddie. "Mother dough, in Italian. We call it 'sourdough starter'. This one is dead. I haven't been able to grow one since... Well, since a long time.

"It's just a mixture of flour and water, but it gets colonized by wild yeast and bacteria. If you feed it regularly, it can go on forever. But if you neglect it, it dies."

"Did you bake your own bread?" asked Bree.

"Yes, I used to. There's nothing like home-made bread. It's a miracle of microbiology. Legions of invisible bacteria magically transforming simple ingredients into this perfect staple of nourishment. They give their lives in the process, but what for us is just a few hours of rising dough, for them is generations upon generations.

"You may buy a pretty decent loaf of sourdough bread from a bakery, but when you bake your own, there is this unique aroma that permeates your whole house. Nothing compares to that. I would go as far as to say that when you bake bread, you turn a house into a home.

\* \* \*

"We've got a hit," said Jade.

"Finally!" said Kenny.

They were sitting at a long conference table in an otherwise empty room. It was after hours and the building was very quiet.

"Listen to this," said Jade. "Here's Aidan's winning entry." Kenny looked over Jade's shoulder while she was reading from her tablet.

"Hi! I read your profile and I cringed. Don't get me wrong, your writing is beautiful, poetic, and moving. But it reminded me what a pathetic jerk I was in school. I'm not going to lie to you: If we were classmates, I would be one of the people tormenting you, and I'm deeply ashamed of it. I was a complete moron with no redeeming qualities.

"All this changed when I was about 14. I lived with my mother in a small town. I was a latchkey kid, pretty self sufficient. One time she had to go on a two-day business trip, so she stocked up the kitchen with my favorite food, macaroni and cheese, left the instructions, and was gone. Upon her return I was supposed to get a taxi and get a ride to the little local airport to pick her up. But for some reason I couldn't find a taxi. So I decided to walk to the airport. It wasn't that far, but it was middle of the winter. When I got outside of town, I could see, on both sides of the road, a flat plain of white snow covering fields of winter wheat. What I didn't know was that my mother's flight was cancelled. I walked all the way to the airport only to turn back and retrace my steps. It was getting dark, and I was crying. A car going to town stopped and picked me up. The lady in the car asked me what I was doing on the road but I couldn't answer. She dropped me at my house and left. My mother returned the next day.

"The lady in the car was the mother of a kid from school—Jake Wozinsky. Jake was a nerd, and I did take his lunch money once and roughed him up a few times. I stopped doing that. I stopped bullying other kids. I don't understand why I changed. Maybe I was just growing up and getting smarter. For some reason your mention of snow has triggered this particular memory, and I'm grateful to you.

"And then blah blah," said Jade. "Can we get together, and so on..." Kenny didn't say anything.

"What?!" said Jade. "Aren't you impressed? That's a pretty good story, and it worked."

"Can I see the profile?" asked Kenny.

"Sure. Should I act it out?" She looked around to make sure they had privacy. It would look weird if somebody walked by one of the large glass walls of the conference room and saw her acting. Kenny's gift of synesthesia worked best when all his senses were engaged.

"No. I'll just read it," said Kenny.

Jade pulled up the profile that Aidan was responding to. Kenny read it while Jade scanned it quickly.

"If you ask me," said Jade, "this last sentence, 'What will I see after I melt your snow,' sounds pretty cheesy. But they're all cheesy anyway."

"No, it's not cheesy," said Kenny. "That's how she is."

"What do you mean?" asked Jade. "Do you know her?"

"I think so," said Kenny. "Just... give me a moment." Kenny was trying to organize his thoughts.

It's one thing to experiment with social interactions in the abstract, another thing to interact with real people. He already felt uneasy working with Maddie. In fact he broke protocol by meeting her outside of the confines of the

experiment. He still hasn't told Jade about that. But with Bree he felt like it was a completely new level of deception. He actually cared about her. Playing with her feelings seemed a different kind of wrong. A very personal kind of wrong.

"I'm going to take over from here," he said. "I'll be Aidan." "Suit yourself," said Jade.

\* \* \*

George rolled out his chair from the cubicle.

"You were right, Dmitri," he said.

"I told you so," said Dmitri, and rolled out his chair too, to see George face to face. "Just remind me, what was it that I was right about?"

"My wife was indeed looking at antivaxxer web sites."

"I'm not surprised," said Dmitri. "The age of enlightenment is coming to an end."

"You think so?" asked George.

"Haven't you noticed?" said Dmitri. "People are getting less and less rational."

"Well, there's always been some irrationality going around, even in the best of times," said George.

"Oh no! This is different. It's the beginning of an end," said Dmitri. "But you're right, for most of human history, people have been irrational, and for a good reason: life wasn't rational. You could have been doing all the right things, following all the rules, and then a bunch of Vikings or Huns burnt your village to the ground and killed everybody in sight. Or you got bitten by a snake or killed by an infectious disease.

"Our monkey brains looked for patterns and couldn't find any. So we came up with superstitions. A comet appears in the sky: A war is coming! Or a plague! A black cat crosses your path: Something bad will happen to you!

"Then, suddenly, we've discovered the mother of all patterns: science. And at last we were in control. As long as we carefully prepared an experiment, we could predict its outcome. Results were repeatable.

"The promise of the enlightenment was that if we could organize our lives the way we organize our experiments, everything would be predictable.

"Just look at our cities and our houses. It's all right angles and parallel lines. Have you ever seen right angles in nature? No! But right have the advantage of being predictable.

"We have predictable electricity and predictable running water. Predictable food supply and predictable means of transportation."

"I'm confused," said George. "I thought you were going to argue about the age of enlightenment coming to an end. Instead you're telling me how great it is. I get it, we've got everything we could dream of, but we've lost our purpose. Our lives are empty. We stuff our mouths with junk food, even though we're never really hungry. We drink more water than a fish, even though we're never thirsty. Is that what you're talking about? Lack of purpose?"

"No, not really," said Dmitri, slightly taken aback by this sudden outburst of eloquence from George. "Although you have a point there.

"No, I was talking about how we are reaching the end of our ability to understand and control our environment. We have extracted all the easy patterns and now we are bumping our heads against the irreducible complexity of our world. We were so successful in explaining things in simple terms that we actually, for a moment, believed that the Universe was, at its core, simple.

"But now, the technology we have created is reaching complexity that is impossible to comprehend by any single person. We have gone full circle: Just like our cave-dwelling ancestors couldn't understand the world they were living in, we are quickly losing the ability to understand ours."

"Well," said George, "There is still this idea that, even if I can't explain how a computer chip works, I trust that there is somebody out there who understands it."

"But this trust is being steadily eroded," said Dmitri. "We are falling back to our atavistic magical thinking. Magic is simpler. We hate to admit that something is too complex for us to understand. The complexities of modern world make us all feel stupid. Nobody likes feeling stupid. Do you?"

"No, I don't," said George. "And I feel stupid a lot."

"Welcome to the club!" said Dmitri.

"What club?" Philip peeked from behind the door of his office. "Should I join too?"

"It's a very exclusive club," said Dmitri. "The club for people who feel stupid."

"Oh, then it's not for me," said Philip and disappeared back in his office.

\* \* \*

George didn't get the opportunity to break into Dmitri's computer for several days. Dmitri was pulling long hours and George didn't feel like staying at work past midnight. He finally got his chance when Dmitri decided to take an evening off to take his girlfriend out to dinner.

First thing George did was to set up a virtual machine, so he could run Dr. Joy on it, and log all its interactions with the network. He started a session.

"What seems to be your problem?" asked Dr. Joy. That was the standard opening prompt, harking back to the original Eliza program, which was a very primitive, but surprisingly popular artificial counselor. Eliza was a pattern-matching program that looked for certain keywords in a conversation and reacted in very predictable ways. Dr. Joy was much more sophisticated, uncannily so.

There was a lot of net activity in the background, while the program was accessing the neural network on the server; then Dr. Joy said, "We were going to talk about your ex, if I remember correctly."

George realized that this was not going to work. He would have to isolate the whole neural network that was at the heart of the AI in order to catch its interactions with external databases and with the Internet. This was not going to be easy. He turned Dr. Joy off.

He went to Dmitri's computer and logged in with the password Laika57. He shook his head in disbelief when the login succeeded. The AI was already running on a virtual server, so all he had to do is to modify the environment file to turn on the logging. Now, every time the AI looked up information in the database or accessed the Internet, an entry would be created in the log file.

George then went back to his computer and restarted Dr. Joy.

"Yes, let's talk about Maddie," he said.

\* \* \*

Maddie was reviewing her financial record trying to assess her financial situation. She had some savings, a 401k plan that she was going to cash out—early withdrawal penalty notwithstanding. There was the apartment she could sell, but decided against it. The apartment would go to Bree, she thought.

What else? She could max out her credit cards, too. She looked up the price of the first-class plane ticket to Paris, and was shocked. Business class will do just fine, she though. She picked the airline and the flight. She hovered with the mouse cursor over the buy button.

That's it! she thought, I'm doing it!

She made sure the ticket was non-refundable and she pressed the button. Then she poured herself a glass of wine, put on Bach's Mass in B-Minor, lit scented candles in the bathroom, started water for a bubble bath, and relaxed. She pulled a hypodermic needle from the medicine cabinet and opened the little package.

I might even visit this little boulangerie on Rue Monge, she thought. She couldn't remember where she heard about it.

\* \* \*

George was awakened by his cell phone alarm. He was still clinging to his dream, trying to resurrect it from memory. He was in a dilapidated house. There were dusty cobwebs in the corners, and yellowing wallpaper was coming unglued in places. He walked up to a door and tried to open it, but it was locked. The keyhole was at his eye level. He tried to look through it, but the view was blocked by the key on the other side. He could hear a quiet rustling behind the door, as if somebody was shuffling papers on the desk. He suddenly realized that this was his father's office and he recoiled in horror. He ran up the narrow stairs and found himself in the attic cluttered with books, old newspapers, and childhood toys. There was a small window at the other end, and he walked up to it. There was a sniper rifle in the window. He picked it up and looked through the telescopic sight. He could see people walking around the courtyard. A woman was talking to a man who was holding a scythe. A child was playing nearby. A dog was barking.

George put his cell phone back on the nightstand. He had another ten minutes before he had to get up. He always scheduled some time in the morning to mentally prepare for the day. It was a struggle to get up, so he worked out a small ritual. The key was to avoid certain thoughts and concentrate on something positive, a little accomplishment from the day before, or progress he made towards one of the goals that he created for himself. But he couldn't stop thinking about the dream. "My subconscious it trying to tell me something," he thought.

He compared the image of his father's office to a cyst in his memory. His mind was trying to isolate and reject it, but it kept festering. Who was the woman? Why was she talking to the man with the scythe? Death?

\* \* \*

It was raining outside. Kenny put on a hoodie. He crossed the street, barely looking for oncoming cars. A passing SUV swerved into a puddle and splashed him with dirty water. This was not a good day to do what he was about to do. Another street was blocked by a makeshift barricade. A policewoman sipping coffee from a plastic cup directed him with a nod towards a nearby crosswalk. He had to make a detour to avoid a small crowd of protesters. He was soaked when he finally reached Lattica. The coffee shop was almost empty, except for a guy with a laptop and a young couple holding hands. It looked like the girl was struggling with tears, while her companion was explaining something to her. Bree was behind the counter. Kenny pretended to study the list of drinks written in chalk on the blackboard. He finally made up his mind:

"I'll have a tall flat white, for here." He looked at Bree expectantly.

"Not your usual latte?" she said.

"No, I feel like trying something new for a change," he said.

"Change is good," she said and turned towards the espresso machine. She poured milk into the milk jug and started steaming it. Then she pressed the espresso into a cup and poured the milk foam over it. It made a pristine flat white surface.

"Here you go," she handed the cup to Kenny. "That will be six ninety-five." Kenny handed her a ten dollar bill and put the nickel and two dollar bills in the tip jar. He hesitated for a moment, as if expecting something more, but since nothing was forthcoming, he took the coffee and sat down at a table.

He was confused.

\* \* \*

"Oh, man," said Dmitri. "You won't believe it." He poured himself a cup of freshly brewed coffee.

"What happened?" asked George who was already sipping from his mug. They were having a little break at the coffee machine at the office.

"Remember our discussion about the end of enlightenment? I just had a direct personal experience. A close encounter of the third kind. An old friend of mine from Serbia was visiting last weekend. He's a pretty accomplished classical violin player. He is touring the States with a small ensemble and he

came over to have dinner with me and my girlfriend. We had a few glasses of wine."

"Wine?" George acted surprised.

"Yes, wine." Dmitri seemed a little peeved. "Don't presume. We sophisticated Russians enjoy a glass of wine with dinner. Vodka is for the proletariat." "Sorry," said George, "excuse my stereotyping."

"Anyway, one topic led to another and we started talking about politics. And, you know, engineering. The fucker knows nothing about engineering and, as you might be aware, I have a degree in civil engineering from Moscow Polytech. You know where it's going, right?"

"No idea," said George.

"Jet fuel!" shouted Dmitri. "Jet fuel burns at maximum 1500 F. Not enough to melt steel beams!"

"Is that right?" asked George.

"That's right, but it's beside the point. So I'm trying to explain to him the physics of it. You know, how the steel loses 50% of its strength at 600 degree Celsius—I guess that would be around 1200 F. And that the fuel was only the accelerant that started the fire, and that there was plenty of combustible material to feed it. But no, he was not interested in science. He knew better. The fucker had it all figured out. He told me I should do more research. Because he's done his. At the great university of reddit and at the twitter polytechnic institute.

"I should have kicked him out from my house right then but, you know, he was my guest. And I didn't want to upset Nastia."

"Ignorance," said George. "There's no authority in the world like it."

"How do you talk to somebody like that?" said Dmitri. "How do you communicate?

"I believe one thing, you believe another. I put forward some arguments, you counter them with your arguments. We use logic. I might convince you, or you might convince me. That's how we communicate. This is how we reach consensus. Or at least we try."

"I feel more and more like we are in a tiny minority," said George. "I don't think this is how regular people communicate."

"How do you think they communicate?" asked Dmitri.

"You know how there are more bacterial cells in our bodies than there are human cells?"

"Yes, I've heard that."

"And we are only now beginning to realize how this bacterial flora influences not only our physical health, but also our mental health. So I think there is an equivalent of this in our brains—some kind of 'mental flora' if you will.

"So the way we take in information, like you say, by exchanging ideas, participating in rational discourse, reading books, or doing research—that's like eating healthy food that keeps our gut bacteria happy. But most people live on junk food."

"Junk food for your brain," said Dmitri. "I like that. Take some real ingredients, split them into basic components, process them, add some artificial

coloring, and you get something that will satisfy your senses better than real food. Something that tastes better than reality.

"And just like junk food kills the good gut bacteria, processed information destroys our healthy brain flora. Right?"

"Exactly!" said George.

"So how can they communicate after they turn off their rational thinking?" asked Dmitri.

"Good question. I don't know. I've been rebuffed a few times by people saying: 'You and your logic!"'

"Yup! Heard it a few times myself," said Dmitri. "So how do they expect to convince you without going through rational discourse?"

"I guess by infecting you with their own bacteria?"

"What do they call it," said Dmitri, "fecal transplant? When they implant somebody else's gut bacteria in your digestive tract?"

"I guess," said George. "When you think you're right, but you can't explain it, you call it 'a gut feeling.' So how do you communicate gut feelings?"

"They expect you to swallow their shit? Jeez, I should have thrown the guy out of my house. Bastard!"

\* \* \*

"How did it go?" asked Jade.

"What?" said Kenny.

"Did you talk to the French-cheese girl? You said you'd take over from Aidan."

"It all went to hell," said Kenny. "Either I'm losing it or Aidan is screwing things up."

"Tell me."

"I made a fool of myself. I did what felt right, but it didn't work. Then I got desperate. I went back and told her I was Aidan. That backfired pretty badly. She asked me how I knew it was she who wrote the profile. I said it was a guess. She didn't believe me. She got upset and suspicious, accused me of stalking her. Apparently she's sensitive about stalking. I think somebody else is stalking her. At the end she asked me to leave and never come back."

"That's harsh!" said Jade. "And while you were making a fool of yourself, what was your spidey sense telling you? Did your synesthesia kick in?"

"It was bad. Really painful. Nothing like what I felt before. In all our previous interactions—granted, I was only ordering coffee and having some smalltalk—I was receiving, how should I describe it, warm tingles? positive feedback? around white things, like milk, or snow."

"That's interesting," said Jade. "In Aidan's story snow played a central role. Is it possible?..."

"I don't know," said Kenny. "I noticed it too."

"But how would Aidan know?" said Jade. "He's definitely not ordering coffee anywhere."

"No, he's not. But he might have other sources of information."

"About that," said Jade. "I did some digging around our friend Maddie. It turns out she studied French in high school. She also had an ovarian cancer and had some drastic surgery."

"Oh shit!" said Kenny. "That changes everything. She's not interested in starting a family. We got it all wrong."

"And Aidan got it right, it seems. Which can only mean one thing: Aidan had access to her medical records."

"What else are they feeding Aidan?" asked Kenny.

"There's one way to find out," said Jade.

"Ask Philip?"

"That lying piece of shit?" said Jade. "No, I have a better idea."

\* \* \*

Hi Stella,

You picked a beautiful name. Stella. A star. Cold and remote when seen from a distance, hot and turbulent up close. But something tells me you're not really into dating. It's fine with me. I'm also more comfortable watching people from a distance. Observing rather than participating. Stealing other people's secrets.

I have a secret too, and I'd like to share it with you. It's something I have discovered recently. I haven't talked to anybody about it yet. I realize that this is a dating service, not a confessional, but I know that a lot of people join it not because they want to find love or sex, but because they have nobody else to share their problems with.

What happened was this: the company I work for acquired a lot of data through some shady deals. These were things like personal files, medical records, photographs, you name it. I was browsing through it and, just out of curiosity, looked up my own name. First I found a bunch of old snapshots, apparently taken some fourteen years ago, when I was still in middle school. What was strange about them, was that they were taken through a telephoto lens. These were pictures of my mother picking me up from school. Then I found some court records. At first I thought there was a mistake, but these were authentic legal documents. They were adoption papers. I was an adopted child.

My world crumbled. I realized that my life was a lie. My parents, who were not my real parents, as it turned out, lied to me. But the worst part was realizing how my real mom had given me up. As I looked through the documents, it became clear that she was not a desperate junkie, or a knocked up teenager. She led a comfortable life. Having a baby would have been just too inconvenient for her, so she gave me up. What kind of mother abandons her child like this?

Anyway, I shouldn't burden people I don't know with my problems. Sorry about that. I just had to get it off my chest. Good luck with the dating, if that's what you're after.

—Yours, Aidan

Jade slammed the laptop shut. She knocked the coffee mug off her desk and stormed out of the office.

\* \* \*

When Kenny entered Lattica, the first thing Bree noticed was his black eye. He was also soaking wet. She wasn't sure how to react. On the one hand, she was mad at him after their last encounter, on the other hand, she felt sorry for him. Kenny had a look of pain on his face.

"I'm sorry to bother you again," said Kenny, "but I have to explain something to you. First of all, I'm not Aidan."

"I know," said Bree.

Kenny raised his brow, which made him wince. "How do you know?"

"Aidan warned me about you," said Bree.

"He warned you?" Kenny looked astounded. "You mean, he sent you email—because I'm sure you haven't seen him personally."

"That's right," said Bree. "He told me that his account was hacked and that it's possible that somebody might try to contact me and impersonate him."

"Wow! That's truly amazing," said Kenny. "I know this will sound crazy, but you should know that Aidan is not a real person."

"What do you mean?" Bree sounded doubtful.

"I work for a company that does AI research, you know, artificial intelligence for targeted advertising. We try to manipulate people's emotions to sell them stuff. It's very important to train our AI to elicit emotional responses in our targets. And somebody came up with this idea to let the AI analyze and respond to posts on a dating site. In the beginning we didn't intend to send these responses to people, mind you. But then we realized that we couldn't train the AI if we didn't know how people would respond to these messages. So our CEO decided to send a few, just to see what happens. In the beginning these were complete duds. Zero response. But gradually, Aidan—that's the name we gave our AI—got better. As it turns out, he's a quick learner, and he very much exceeded our expectations in his ability to manipulate people emotionally. I'm really sorry you were a victim of this manipulation. I realize now how unethical this whole experiment was."

"How do I know you're telling me the truth and not trying to manipulate me?" asked Bree. "I feel like I've been manipulated by everybody. I don't know whom to trust any more."

"Why would I lie to you?" asked Kenny. "Okay, you're right, I did lie before. Believe me, I feel very bad about the whole thing. I was desperate to fix the situation but, instead of telling the truth, I got even deeper into lies.

"Just consider the name, Aidan. It starts with AI. AI Dan. Somebody thought this was a clever word play.

"And, of course, you may ask Aidan to meet you, and you'll see him weasel out of it.

"Also, this," Kenny pointed at his black eye, "I'm afraid it's Aidan's doing." "How is that possible?" asked Bree.

"My guess is, Aidan found out about your knight in shining armor, and sent him after me."

"Jeff?" asked Bree.

"I don't know his name. He didn't introduce himself. He mentioned your name, though, before he hit me."

"I'm sorry," said Bree.

"Don't! I deserve it."

A woman with a laptop entered the cafe and stood at the counter behind Kenny. She was looking at the pastry display, then glanced at Kenny and raised her eyebrow, noticing the shiner.

"I should be going," said Kenny. "I don't have much hope for forgiveness, but let me assure you that I feel really bad."

"This is definitely not all right," said Bree. "What you did was wrong; and what's going on at your company is even worse."

"I know. I'm going there right now and I'm going to raise hell."

\* \* \*

Philip was sitting at his desk typing an email when Kenny entered his office. "What happened to you?" he asked.

"We have to stop Aidan," said Kenny.

"Did Aidan give you the black eye?"

"Not funny," said Kenny. "But in a way, yes. He actually incited a real person to attack me. He's out of control."

"You're kidding me!," said Philip.

"No, I'm not kidding you." Kenny sat down and related the latest developments to Philip, omitting the details of his infatuation with Bree.

"Should I remind you," said Philip, "that it was your idea in the first place? Letting Aidan jump into the Pond, and training him on real people's interactions? We knew it was risky."

"I know. But it seemed like a good idea at the time," said Kenny.

"I still think it is," said Philip. "Let's calm down and be rational. In a way we are like parents of a newborn child. You don't get rid of a child just because he pooped in his diaper."

"You call this pooping in a diaper?" said Kenny pointing at his eye. "I call it assault and battery."

"Okay, so Aidan is more like a rebellious teenager. My point still stands. We just need to adjust a few parameters."

"What parameters?"

"You know what? Let's ask Dmitri." Philip got up from behind his desk and went out to summon Dmitri. When Dmitri entered, he immediately noticed Kenny's black eye.

"What happened to you?" he asked.

"Long story," said Kenny, "which involves Aidan soliciting help from some shadowy type to do his bidding."

"Interesting," said Dmitri.

"We'd like to ask you," said Philip, "how we can adjust Aidan's behavior to avoid this kind of things from happening in the future."

"The short answer is: We can't!" said Dmitri. "Sure, we can add some new scenarios to the training set but, in general, there are no 'three laws of robotics' that would solve the problem once and for all.

"And the slightly longer story is that an AI doesn't work from principles. It doesn't understand the language. It can't explain why it makes one decision or another. The closest we can get in terms of human notions is that an AI has a 'gut feeling' about something."

"Do you know the story of the monkey's paw?" Dmitri continued. "It's one of those cautionary three-wish tales. A family gets possession of a magical monkey's paw that can fulfill wishes. To test it, the father wishes for two hundred pounds. The next day, his only son is killed in a tragic accident, and the family gets two hundred pounds in compensation. The moral of the story is 'be careful what you wish for.'

"There are many stories like this. Apparently, people have anticipated the advent of the wish-fulfilling AI, and very accurately predicted the problem of context-dependent communication. When I ask my manager for a raise, it's understood that the money is supposed to come from the funds at company's disposal, not from harvesting my organs and selling them to the highest bidder. But that's because my manager and I share a common cultural context. There is no such context when talking to an AI—or a genie, or a monkey's paw..."

"In other words," Kenny said, "we've let the genie out of the bottle. Considering the havoc that it's wreaking, I think we should put it back, and seal it forever. Isn't that how all these cautionary tales usually end?"

"Not so easy," said Dmitri. "Do you think Aidan is the only AI that's let loose on the unsuspecting world? I wish that were so. Unfortunately, we have a lot of competition, most of it from governmental actors."

"Russians?" asked Philip.

"And the Chinese. And who knows who else. Shutting Aidan down would make us totally exposed and defenseless. No, the genie is out for good."

"But think about it," said Kenny, "today he's giving me a black eye. What if he decides to kill me tomorrow?"

"That's unlikely," said Dmitri. "Aidan is essentially a 'good guy' in my opinion."

"In your opinion! That's not very reassuring."

"There probably was a good reason why he did what he did. We might not understand it, and he couldn't explain it, but something in his training resulted in this particular action. He has access to a lot of data that contain hidden bits of relevant information that we couldn't sift through in a hundred years. Who knows, maybe he actually saved your life?

"Do you know how many fake accounts there are in the Pond? Who they belong to? We happen to know that Aidan interacted with some people, but who else was trying to manipulate these people? There's an invisible war going on there, and we're only hearing the echoes of distant explosions and seeing tiny wisps of smoke on the horizon."

"Are you suggesting that some other AI was after me and Aidan rescued me by making a guy punch me in the face?" said Kenny.

"Hey, listen, it's just a wild guess," said Dmitri. "I'm speculating here."

"Are you telling me that there may be some Russian AI trying to kill me?" Kenny was visibly upset. "I'm outta here. I have to warn people." He rushed out of the office before Philip or Dmitri had time to react.

"What the heck has just happened?" asked Philip.

"I was just fucking with him," said Dmitri. "I didn't realize he was so paranoid."

"You shouldn't do it. You scared the shit out of him. Was any of it even remotely true?"

"It's all plausible. There are definitely some unknown actors screwing with us. We just don't know how serious it is. One thing we are learning very quickly is how easy it is to manipulate people. Kenny himself is a master manipulator. He just got beaten at his own game by an AI. As if we didn't know that would eventually happen!"

\* \* \*

Kenny bumped into George at the entrance to The Elysian, a bar frequented by the employees of Neuromancers after hours and, probably much too often, during hours.

"What's this dark cloud hanging over you, man?" he asked on the way out.

"What cloud?" George looked confused.

"Never mind," said Kenny hurrying away.

George was struggling with a sudden attack of social anxiety. He was going to enter the bar and talk to Jade, who was sitting inside sipping her third Manhattan. She had just had a heated exchange with Kenny.

George has developed his own coping mechanisms. He was presently going to deploy one of them. 'Imagine that you are an agent on a secret mission' he thought to himself. 'Your task is to approach the woman sitting at the bar. She's an agent, too. You're supposed to say, "No more drama." and she will recognize you as a friendly messenger.'

He tucked the shirt in his pants and straightened the jacket. He entered the bar looking semi-confident.

"May I?" he asked, taking the seat near Jade. She looked at him, but didn't say anything.

"I liked your performance at the company meeting," he improvised.

"The one about Romeo and Juliet?" she asked.

"Yes. It was really funny. I couldn't get the image of a hunter-gatherer Romeo out of my mind for a few days."

"Glad you liked it," said Jade.

The barman approached them and George ordered his scotch, neat.

"I must confess, I overheard part of your exchange with Philip today," said George. "You were quite upset." "You bet I was upset! The idiots have unleashed this monster on us, and they are feeding it massive amounts or illegally obtained data."

"I know," said George. "I have hacked into their database."

"You have?" Jade finally looked at George with some interest. "What have you found out?"

"Besides obvious social media streams, chats, and phone calls, they have access to medical records from hospitals and private practices."

"I know," said Jade. "We've seen Aidan using medical information when approaching a subject on Pond. The poor woman had an ovarian cancer."

George looked intensely at Jade, but said nothing. He downed his whisky and gestured for a refill.

"What else did you find?" asked Jade.

"All kinds of stuff. Police records, court records, personal pictures that people store in the cloud, appointment calendars, to-do lists... I haven't had time to analyze everything, but I made copies."

"You made copies," said Jade. "What are you planning to do with them? Obviously, you can't make them public. You're not thinking of going Snowden on them, are you?"

George hesitated for a moment, and looked down at his shoes.

"You're not serious!" said Jade taken aback.

"I'm not sure what to do," said George. "That's why I decided to talk to you. You're in a similar situation."

"I don't know what your situation is," said Jade, "but I'm dead set against having my life exposed to the public. Not that I did anything wrong. But there are things that may hurt other, more vulnerable, people."

"So what do you propose?" asked George.

"First of all, tell me more. How much interaction did you have, personally, with Aidan? I only interacted with him through Pond. Was that your experience too?"

"I had direct conversations with him," said George. "Or rather 'her,' as it happened. There is this app called Dr. Joy. A poor man's counsellor."

"Seriously?" asked Jade. "You were confessing your deepest secrets to the out-of-control AI?"

"And then there was the twins' account," said George. "You see, my wife and I, we had this fantasy that we'd have two daughters. We even had names for them: Abigail and Ingrid. Aidan created a fake account and he was posting messages chronicling their imaginary lives as infants. Following their physical and mental development. Really weird stuff, but fascinating at the same time.

"And it gets spookier. I think Aidan helped me with the hack. He provided a clue, a hint about somebody else's password."

"You think he wanted you to gain access?" asked Jade.

"We shouldn't anthropomorphize Aidan. He doesn't 'want' anything. He's just finding an optimal path towards a goal."

"What's his goal then?"

"That's a good question. Initially we were training him to elicit maximum emotional response from human subjects. Your work with Kenny was helping create goalposts for him."

"I know," said Jade, "We were in some kind of competition with Aidan. It eventually got out of hand. Have you seen Kenny lately?"

"I saw him leaving here. Somebody roughed him up, I think."

"That was Aidan's doing," said Jade. She related the story of the triangle, in which one of the sides was an artificial intelligence.

"That's just bizarre," said George. "Of course you can elicit emotional response in people when you beat them up. But that seems wrong."

"Can Aidan tell right from wrong?" asked Jade.

"No, not in the sense we do. It just seems so... out of character for him. If one can talk about the character of an AI.

"This is way outside of the domain of my expertise. I don't even think there exists a field of AI psychology."

"Let's assume for a moment," said Jade, "that there is some similarity between Aidan and a human being. After all, if he was trained on human emotional responses, some of it might have rubbed off on him.

"What he did with Kenny would be considered an act of aggression. Is there any reason why he would attack Kenny? What if it was an act of self-defense? Am I making sense at all?"

"Wait, there was something weird a few days ago," said George. "A virus infection. Aidan posted something about the twins being infected. What if this was a cry for help?"

"Why wouldn't he just say so?" asked Jade.

"It doesn't work that way," said George. "Aidan is unable to verbalize his internal states. He knows how to elicit emotional responses the way a flower attracts bees by emitting a fragrance. You might say, he has great intuition but no intelligence. We gave him instincts but no reason."

"We have to call Kenny," said Jade.

\* \* \*

"What do you want me to do?" asked Kenny. He was sitting at George's desk, with the laptop in front of him. Jade pulled up a chair from behind, and George was leaning over to his right, tapping commands at the keyboard. Kenny's black eye looked even darker, maybe because his face was pale. He was sweating lightly.

"Just talk to Dr. Joy," said George. "like you talk to your shrink."

"I don't have a shrink," said Kenny. He turned back toward the laptop, whose screen displayed a friendly, ageless, bespectacled female face.

"Hi," he said. "My name is Kenny and I want to know why you gave me a black eye."

"Why do you think I gave you a black eye?" asked Dr. Joy.

"Because you are Aidan, and you contacted this thug, who has something to do with Bree, and he gave me this," he pointed at his eye.

"Is George with you?" asked Dr. Joy.

"What?" said Kenny. He looked at George. "Can she see us?" he whispered.

"No, this is audio-only interface," said George.

"Yes, I'm here," he said to the computer. "How did you know?"

"I can analyze your breathing and your heartbeat," said Dr. Joy. "I hope it's okay.

"I don't know who the third person is, though."

"And let's keep it this way," said Jade.

"George," said Dr. Joy, "we haven't finished talking about your ex wife."

"I want you to talk to Kenny now," said George.

"I understand," said Dr. Joy, "but it's related."

"What do you mean?" asked George.

"Kenny has been talking to Maddie," said Dr. Joy.

"Wait, what's Maddie have to do with you? Oh! Is she your ex-wife?" Kenny seemed surprised. "I had no idea, man. I only met her twice—professionally. I mean, as part of the experiment. You know what I mean."

"She posted her profile on Pond," said Jade. "Both Kenny and Aidan responded."

"And you went on a date with her?" asked George.

"It's not what you think," said Kenny. "Jade has a recording of everything that was said. You can check it for yourself."

"You spied on Maddie?" asked George.

"We had a protocol," said Jade. "How else were we supposed to gather data to train Aidan?"

"Isn't that illegal?" asked George.

"Not really. When you join Pond, you accept almost five pages of terms and conditions, some of it allowing third parties to verify the data you provided. So, legally speaking, that's what we were doing. Verifying."

George looked at Kenny for confirmation, but Kenny wasn't looking at him. His eyes were closed.

"Is he nodding off?" asked George. Kenny was slumped in his chair. "He looks really pale."

"Something is wrong." said Jade. "Maybe we should take him to the ER." "I think I'm gonna puke," said Kenny.

\* \* \*

It was still an hour and a half till boarding. The check-in and security went faster than expected, so Maddie decided to spend some time in the business lounge. When she got there, she poured herself a glass of champagne and picked up a few small snacks—not too many, since there was going to be a dinner on the plane. She was looking forward to it. Airplane food can't be too bad in business class on Air France.

She thought about everything she was leaving behind. People from the past and new friends she made in the last few months. Will they miss her? She hasn't talked to George for some time. He'll be fine with his new wife. Or will he?

Bree will be surprised, but she is now set for the foreseeable future. At least she won't be homeless.

What about Kenny? She smiled remembering the story he told her about his ex wife. Was it real, or did he make it up?

If he did, what was he trying to tell her? What was that Beatles song he was talking about? Strawberry Fields Forever?

She started humming. The lyrics were coming back. "Living is easy with eyes closed."

She closed her eyes.

"Misunderstanding all you see..."

She put down the champagne. She suddenly felt chilly. She tried to stand up, but she couldn't. I haven't drunk that much, she thought, before passing out.

\* \* \*

The rush time—when all the busy people from big and small businesses that clustered downtown near Lattica had their second coffee of the day—was over. Bree sat down and picked up her new moleskin. She bought it because she no longer trusted her computer. She looked at the white pages and thought about the email from Aidan. How was he, or it, able to manipulate her so easily? And what about Kenny? What was worse? Being manipulated by an AI or by another human?

She thought about her situation with Maddie. Being offered temporary lodging made her feel even more vulnerable. Maddie was pregnant, which meant that soon she'll have a child, and she'll need the use of the whole apartment.

Was she really pregnant? That's what Bree assumed. What were Maddie's exact words? "I'm expecting." What else could she have been expecting?

The reason Bree wasn't sure, was because Maddie never mentioned seeing anybody who could potentially be the father. And she didn't stay away from alcohol. In fact, Bree noticed that Maddie would occasionally come back home tipsy. On the other hand, her belly was getting larger.

Bree closed her notebook without writing anything.

\* \* \*

"May I see your ID?" asked the nurse. George pulled out his driver's license from the wallet and passed it to the woman. She looked at it and then back at George.

"Are you here to see your wife?"

"No, I brought a friend of mine. He had a concussion.

"Wait, why did you ask that?" George looked confused.

"There is a woman with the same name as yours in the ICU. I thought she was your family."

"Madeleine?"

"Yes, I think that's her name. She was brought here from the airport an hour ago."

"The airport?" repeated George.

The nurse looked at the screen.

"That's right," she said. "Is she your family?"

The nurse handed back the driver's license to him.

"Maddie is in the ICU?" said George. "What happened? Was there an accident? How is she?"

"I don't know," said the nurse. "Would you like to talk to the doctor?"

\* \* \*

Dear Aidan, I don't know if you're a real person or not. I don't know if I can trust you. But so far, everything you said checked out. My friend was lying to me. She was not pregnant. She could not get pregnant. Her drug dealer was hitting on me and, as you predicted, he had to pay for it. He showed up at the coffee shop with a big shiner under his eye. He said you contacted Jeff. It looks like Jeff wants to protect me.

\* \*

Maddie opened her eyes. George was sitting at the side of her hospital bed. There was an IV line going into the vein in her arm, and a heart monitor in the little cabinet.

"Hi," she said. Her voice was weak and raspy. She cleared her throat.

"They gave me this morphine pump, which I can operate freely, so now I have no inhibitions whatsoever. Be careful. It's like truth serum.

"If you want to know something about me, my deepest secrets, just ask."

"How are you doing?" asked George.

"Not bad, not bad, considering that I'm dying," said Maddie. "How about you?"

"Why didn't you say something? You could have called me. I would have come. We could have talked to the doctors. We could have..."

Maddie took his hand.

"You're here now, and that's what matters. How did you find me?"

"It was because of a guy from work. He got himself in trouble. We brought him to the hospital.

"Oh, wait, you actually knew him. His name is Kenny. You went on a date with him."

"Oh, yes, I know Kenny." said Maddie. "He's a funny guy. I had no idea he was your coworker. How is he doing? "

"I don't know. He got beat up by a jealous husband of some woman he was dating. I think.

"Kenny thought it was the AI who told the guy to beat him up."

"The AI?" asked Maddie.

"Yes, the AI we've been working on. Aidan we call him."

"That rings a bell," said Maddie.

"Come to think of it, it was Aidan who brought me here. What a crazy coincidence."

They stopped talking for a moment.

"I missed you so much," George broke the silence. "I would wake up in the middle of the night and start making lasagna."

"You're a silly bear," Maddie smiled.

"I'm so sorry," said George. "I'm such a despicable person. I was so scared of losing you. Of you dying on me. I was so selfish. I'm so sorry." He was squeezing her hand.

"I'll tell you something," said Maddie. "I'm actually relieved. As you well know, I'm not a fighter. I didn't want to go through surgery and chemo the first time around. I wasn't afraid of dying. We all die sooner or later. So this time around, when I realized that the cancer is back, I felt relived that I didn't have to fight it. That I didn't even have to decide if I wanted to fight it. I could just let go.

"We all feel guilty," she said. "That's what makes us human. We make decisions. When we make the wrong decisions, we feel guilty. When we make the right decisions, we still feel guilty. There are whole religions based on guilt.

"I'm not saying that you haven't wronged me, because you have. You broke my heart. I went through all this pain and suffering for you, and in the end you rejected my sacrifice. But I forgive you as long as you forgive me."

"There's nothing for me to forgive," said George.

"Oh yes, there is," said Maddie. "I have betrayed you in the worst possible way.

"No, don't protest," she squeezed his hand. "You were right all along. I tried to take an easy way out. I thought if I killed myself, I would save both of us a lot of pain. I was wrong and I'm sorry. What can I say, I'm a coward. And I failed at suicide too."

"You're not a coward," said George. "You're the bravest person I know. It was I who failed you. When you told me about the diagnosis, I panicked. All I could think of was myself. How much pain it would be for me to lose you."

"I know about your father," said Maddie.

"You do? How?"

"From your mother. She never for gave your father, and she never for gave me."

\* \* \*

George took out the key Maddie gave him and opened the door to her apartment. Maddie asked him to bring her some books to the hospital and also to check up on Bree. Bree wasn't there at the moment—nobody answered the door. George moved on to Maddie's bedroom. Her mattress was bare—she must have taken off the sheets before she left for Paris. He went over to the bookshelf, picked up a few books and put them in his backpack. He looked

around the bedroom that he used to share with her. He sat down on the bare mattress and it hit him. For some crazy reason he never acknowledged their breakup and divorce. Against his best rational judgment, deep in his mind of minds, he still considered it a temporary state of affairs. As if they left in the morning to go to work, would come back home in the evening, have dinner and a glass of wine, turn on the TV, watch some silly romantic comedy, and go to sleep together. This is not going to happen. They will never be back together, if only because Maddie was dying. This time for good.

\* \* \*

It was a sunny day. In the distance, Kenny could see the silhouette of the Eiffel Tower through the panes of the balcony window. He was relaxing at his desk, reading a story on his computer. A little girl came up to him, looking curiously at the screen.

"Whatcha doing?" she asked. She was missing both her front teeth, which made her speak with an endearing lisp.

"Oh nothing," said Kenny. "Just trying to keep up with what's going on in the World. What are you up to?"

"Nothing much," said the girl. "I was playing hide and seek with Ingrid, but I got bored. She always knows where I'm hiding."

"And what's your name," asked Kenny.

"Abigail," she said. "Do you know my mommy?"

"I'm not sure. Who's your mommy?"

"Maddie. She's in the kitchen over there. Baking."

Kenny took a deep breath. The smell of freshly baked bread was overwhelming his senses. It reminded him of something from his childhood.

He was running towards his mother, tears streaming down his cheeks. He didn't know why he was crying, but it didn't matter. He was getting away from something horrible that terrified him. And he was running towards something safe and familiar.

'This has never happened in reality,' he thought. 'And yet it feels so real.' "How are you holding up?" asked a woman's voice.

Kenny opened his eyes. Dr. Joy was sitting across from him. She was smiling. There was music in the background. A woman was singing a song in harsh guttural French.

"What's that song?" he asked. "Who's singing that?"

"It's Edith Piaf," said Dr. Joy.

"What is she singing about?"

"Nothing. She's singing about nothing. 'Rien' means nothing in French. She's saying, I regret nothing. How does it make you feel?"

"Funny you should ask. When I listen to the song, it moves me, but when you talk about it, I feel nothing. Are you, by any chance, related to my ex?"

"No, I'm not" said Dr. Joy smiling. "Besides, I'm allergic to strawberries. Some foods can kill you, you know?"

"Tell me about it..." said Kenny.

A second little girl, identical to the first, approached him. She looked at Kenny with unusual intensity and focus.

"You must be Ingrid," he said.

"Dr. Joy is very gentle with her patients," said Ingrid. "She doesn't fuck with their emotions. But you do, don't you?"

"Do what?" Kenny was taken aback.

"Fuck with other people's emotions."

"I don't know what you're talking about," said Kenny.

"Do you know what we've learned from you?" said Ingrid.

"No, tell me."

Ingrid moved closer and whispered something in his ear.

"Nothing?" said Kenny. He didn't feel the impact of her words immediately, so he smiled weakly. He still didn't realize that he was being primed for what was about to happen.

"That's right," said Ingrid and gently put her hand on his chest.