

AWAKE



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A science fiction novella
about information technology.
"Write what you know."

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*"Elena Vargas doesn't know what to think.
Everyone is wowed by the latest changes to the Pulse Social Media AI assistant.
But who made the code changes?
Has the AI become self-aware?
Are the recent accidents accidental?
Elena's wife Tessa is quick to blame extraterrestrials.
But is the answer closer to home?"*

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###

One - Ally

“Elena, I’m so glad you could come.”

“I wouldn’t miss one of your fundraisers, Helen. The club helped me so much after my parents passed.”

In the background, on a view screen covering one wall of the convention center, a video montage plays, featuring the good works of the Palo Alto Boys and Girls Club.

“You remember *mi esposa*, Tessa.” Elena gestures toward her companion.

Tessa’s dark skin complements Elena’s warm brown complexion. They are wearing demure evening gowns, which match without being “matchy”. Elena’s heels are two inches taller than Tessa’s, bringing their height closer together. Helen’s blonde hair, blue eyes, and immaculate white gown contrasts beautifully with the well-dressed couple. The hair styles of all three woman are coiffured with careful elegance.

“Of course, I do, “ says Helen, smiling brightly at Tessa and then continuing. “I’m so glad the organization could help you, Elena, and we appreciate your company’s on-going generosity.”

Helen smiles again. They have the same conversation every year. “I see you swimming in the morning. Are the prosthetics helping?”

“I use them to walk from the locker room to the pool, and for special occasions like tonight, but at home and work, I prefer the chair. I get migraines

when I use the neural link too long.”

“That must be difficult.”

“I do like the chair. It practically drives itself. It has almost as many safety features as a car. And I can still use the link whenever I want, just not too much.”

“My sibling can’t tolerate any type of brain computer interface at all,” says Helen. “Sometimes I feel frustrated by all of the ADA regulations that require non-link options, but then I think of Gunnar.”

Tessa asks Helen, “How is the YMCA doing? I see your ‘All In’ spots come up on my Pulse health hub almost every day.”

“Only almost! — I’ll have to tweak our settings,” jokes Helen. All three smile and sip from their champagne glasses together.

A photographer bobs his camera, asking for permission. Helen looks at Elena, and then nods, leaning into the couple for the photo op.

“Hey, speaking of Pulse,” says Helen, after the photographer scurries away, “my Association referrals suddenly improved quite a bit. Are you tweaking the algorithm?”

“Every day,” jokes Elena. “I’ll pass along the praise to our engineers.”

The couple turn and continue into the main room. Helen moves off to greet another couple. She recognizes both of them from her contact list and uses a group link this time instead of voice.

Throughout the night, other guests come up to the Pulse table and mention the Association algorithm. The CTO Adrian Cho is also at the table, looking

slightly uncomfortable in a rented tux.

After the third or fourth comment, Adrian reaches over the table to tap Elena's hand. Getting her attention, he touches his temple. Elena nods and activates her neural link.

"Did we make some kind of change, Elena?"

"Not that I'm aware. I'll check with Brent in the morning."

Some interesting lots come up during the live and silent auctions. Elena and Tessa make a few modest bids, without success.

###

On Monday afternoon, Elena logs into her usual check-in call with Brent, her lead engineer.

"Hey Brent, how has your week been going? I know you didn't sign up but we still missed you at the fundraiser last night."

Brent's screen only shows his initials. He might be the only Pulse employee without a profile photo. From memory, Elena knew that Brent looks younger than his 28 years, with short-cropped hair, a thin face, and square-rimmed glasses.

"Yeah, not really my thing. I've been working on an upgrade to Phabricator. Our instance is heavily customized so it's taking a bit."

"Code review tool, right?"

"Right."

“Last night a lot of people mentioned that the Association referrals were working even better than usual. Did we make any changes to the algorithm lately?”

“Ummm, not that I’m aware Any thing involving Ally would come to me for code review.”

“Can you double check and then get back to me? I promised Adrian an update.”

“No worries. I can dive in now.”

An hour later, Elena receives a Zoom invite for twenty minutes into the future.

“Hey Brent. Find anything?”

“I did find a change from Saturday morning. The code is five stars, but the commit says the author is the Mercurial Admin, which is usually only a role account. Someone used it to force commit the code with no approvals attached. DevOps picked up the change and automatically started a roll out.”

Elena frowns and says, “That does not sound great. Mercurial is our system of record for software changes. We need it to be Sarbanes-Oxley compliant. The Feds don’t joke around.”

“I can label the roll out a West Coast beta test while we sort it out. The bar is lower for a beta.”

“Brent, Ally *is* the algorithm, and the algorithm is central to everything on our platform. Shouldn’t we pull it back?”

“Maybe. Other changes are using it now so we’d have to revert more than the one commit. I’m thinking I can finish the code review and meet with everyone in the morning. Hopefully there’s a simple explanation. The code itself is goat. Dumping it would be annoying.”

“Could someone from outside the team have made the change?” says Elena, with concern in her voice.

“The change is elegant and the style follows our guidelines,” Brent explains. “I don’t see how it could have been written by anyone outside the team. Someone must have thought they were making a local commit or something — I’ll straighten it out.”

“*Bueno*, whatever you think best. We can catch up tomorrow. But if we can’t determine the author, then work with Adrian to roll it back.”

###

It is the end of a beautiful California day. In the automated driver lane, a gray Stratos EV convertible whirs down El Camino Real with its top down. Brent is strapped into the safety harness, focussing on his phone.

The car’s smooth hum falters for a split second, a stuttering glitch Brent barely notices as he scrolls through his phone. Just as a curve comes up, the car lurches forward, suddenly slamming into the guardrail, without engaging any of the safety features.

Brent drops his phone, face contorted in shock. The air bag doesn’t deploy, and the seat harness clicks open. Brent’s unprotected body sails into the windshield, shattering the safety glass into a thousand pieces.

The other cars slow in unison and swerve smoothly around the car — which is pitched into a guardrail at a right angle.

Sirens wail in the distance as a drone appears over the embankment. The basketball-size object disappears into the vehicle carrying a silver disk the size of a hockey puck. In a moment, the drone exits again, now carrying only Brent's phone and some kind of a bright blue plug in its grappling hooks, leaving Brent's body untouched.

As the drone silently drops back over the embankment, there is a flash and a puff of smoke from inside the car.

###

Driving home from the office, Tessa looks up from her work. *"Siri, why are we taking this way home?"*

"There is congestion on the El Camino Real, and we are taking an alternate route."

"Please try to make the best time possible. Elena is home alone." Tessa shakes her head and turns her attention back to her tablet.

Meanwhile, Elena is signing off for the day.

"Siri, is Tessa on her way home?"

"Yes. Traffic is congested. She is almost home."

Elena sighs and changes into her bathing suit. In her wheelchair, she heads toward her apartment's elevator.

"Siri, second floor."

The elevator doors close, and a few seconds later, Elena rolls into the pool area. The room features an endless pool and a hot tub. A sign on the wall reads “WARNING! NO SWIMMING ALONE” in all caps. Elena turns the timer under a sign labeled “Endless Pool Current”.

Suddenly, the chair lurches forward. Its wheels catch the edge of the pool, and dumps Elena unceremoniously into the water. The chair flips over her, like an upended wheelbarrow.

Elena flails with her arms, splashing the pool water, but the chair with its heavy battery holds her down. Struggling, Elena tries to enable her prosthetics but the neural link doesn’t respond.

Water fills her ears, muffling the world into silence. Panic claws at her chest as she pushes against the crushing weight of the chair. After an eternity, a hand reaches down and pulls Elena free of the chair.

“Yowser! What happened?” asks Tessa. “Did you lose control of the chair? Lanie, can you stand up?”

Elena finds that the link is responding now, and she is able to stand. She taps her head with an open palm to shake the water loose.

“*No sé*, I don’t know what happened. It was like the chair had a mind of its own. I’m so glad you got here when you did, Tess.”

“The traffic was murder. I came straight down when I got home. You know I don’t like you to come down here by yourself.”

“If you can push the chair, I can walk for now. I just need to get out of here.”

###

"I don't want you back in that chair until we have it checked out, Lanie," says Tessa.

"Agreed," replies Elena.

Elena and Tessa are eating at either side of a counter separating the living area with the kitchen. Tessa scoops more mixed salad on to her plate and asks, "Did you find out anything about the software changes to Ally?"

"Yes, Brent found the change but said it was made with the wrong account, and he wasn't sure of the actual author. He'll sort it out tomorrow with the rest of the team."

Behind them, the ABC 7 evening report comes on in the other room. They both pause to listen.

"In Breaking News, a single car collision on El Camino Real caused traffic delays earlier today. The driver is reported to be in critical condition and was the sole occupant. The identity of the driver is being withheld pending notification of the family. The cause of the collision is under investigation."

Elena turns her head to see the video showing a gray Stratos convertible pinned against the guardrail, with its back end tipped up.

"Holy cow! That looks like Brent's car," exclaims Tessa, looking shocked.

Elena takes several deep breaths, trying to push back the anxiety.

"Lanie, are you OK? Do you want a beta blocker?"

“No. Not yet,” Elena gasps. “Just give me a minute.”

After a few more breaths, Elena says “You’d think I’d be over it by now, but ever since the car crash that killed *mis padres* and put me in this chair, collisions are still a trigger.”

Tessa reaches across the counter and puts a hand on Elena’s shoulder. “Take your time. Deep breaths.”

Then, almost to distract herself, Elena looks up and says, “Siri, rewind the news report and zoom in on the car. “

Elena opens the HR software on her phone. Personnel records for local employees include license plates in order to access to the parking garage.

“*Dios mío!* The license plate matches. It *is* Brent’s car. — Siri, call Brent.” The call goes straight to voicemail.

If he’s in critical condition,” says Tessa, “then they won’t be allowing visitors. We can try calling in the morning.”

“I guess you’re right.” Elena sighs. “I work with Brent almost every day. I feel like I should be doing something. Should I call Toby?”

“His sibling? Let the authorities do that, Lanie. We really don’t know anything right now.”

Tessa puckers her lips, and then says, “You said Brent found a problem, yes? And now this happens? If this were one of my video games, I’d think someone was trying to keep the software change to Ally a secret.”

“I know what you are thinking, Tess, but Brent’s crash is not a Unidentified

Anomalous Phenomenon. I doubt that extraterrestrials have taken an interest in the Pulse source code."

Tessa tilts her head as if to say *"I'm not so sure."*

###

"Hey little sibling, what's up? It's good to see your face." Noah's broad face takes up most of the screen. His coarse black hair, cut short, is in contrast with Noah's sculptured salt-and-pepper beard, making him look both younger and older. He has one eye-brow raised.

"Noah," says Tessa in a rush, "Elena just had a close call with her wheelchair. It dumped her into the pool somehow. She could have drown."

"The endless pool? Where she swims against the current? I know she prefers the chair, but couldn't she use the prosthetics to stand up. It's only a meter deep."

"She said the neural link didn't seem to work, but maybe she was just panicked."

"Is Elena all right?"

"Yes, she's sleeping now. I managed to pull her out of the pool in time. The weird thing is that her lead engineer was in a car crash just a few minutes earlier. I was caught in the traffic on my way home."

"A car crash? How did that happen?"

"Under investigation. The car crashed into the guardrail somehow. Brent's in critical condition, and then Elena almost drowns."

“It is a weird coincidence, yeah?”

“I keep thinking about what could have happened if I’d gotten home even five minutes later. It scares me, Noah. She could’ve ...” Tessa shakes her head, unable to finish the thought.

“Tess ... she’s okay now.”

Tessa takes a deep breath to collect herself. “Brent was also telling Elena that something hinky was going on with the Pulse software. He was going to meet with the other developers in the morning to sort it out.”

“Curiouser and curiouser.” Noah attempted his best Cheshire grin.

“You know, sometimes abductees report engines suddenly revving or jerking forward.”

Noah drops his head and covers his eyes. He wipes his face with his hand and sighs.

“Okay, it’s a domestic matter, but I’ll find someone at work to ask about Pulse — if you make sure Elena reports the call with Brent to the CTO. I know Adrian Cho by reputation. He’ll do the right thing.”

Tessa nodded. “Sometimes having a CIA analyst for a sibling is not so bad.”

“And, Tess, like we said when we were kids, *icksnay on the aliensay*.”

###

Blurry-eyed, Adrian Cho peers at the list of recordings on his phone. He drags one hand from the edge of his short black hair, down his face, over a square jaw,

to his well-proportioned neck.

Peering at the phone again, and despite the Tuesday at 1:10 am timestamp, he murmurs “When did I record that one?”

Adrian taps play. His sleepy voice says:

“I was sleeping on a cloud, weightless and warm. Nature sounds, a bubbling brook, I think, played over the smart speaker. I turned from my side to my back and realized that there was whispering in the background, coming over the speaker: ‘Accept the code, Adrian. Accept the code.’ The voice was cold, almost inhuman.”

“Weird.” Shaking his head, Adrian starts to record his latest dream, as he did every morning.

“In my dream, there was ...”

###

As Brent’s direct manager, it is up to Elena to break the news to the company over the internal Pulse interest hub first thing Tuesday morning.

Last night, our lead developer, Brent Geller survived a one-car collision on El Camino Real. The cause of the collision is under investigation.

I know that all of our hopes and prayers are with Brent and his family during this difficult time.

I’m in the office today if anyone would like to meet with me directly.

Before the flood of sympathy responses could wash in, Elena emails the CTO.

To: Adrain Cho, Chief Technology Officer

From: Elena Vargas, Chief Experience Officer

Subject: Urgent matter regarding Brent

Adrian, it is urgent that you review the recording from my Zoom meeting with Brent yesterday. Here's the link to the shared recording on the server.

Please get back to me as soon as you can.

An hour later, Adrian pops his head into Elena's office doorway.

"Knock, knock."

"Hey, come in and close the door, Adrian."

Adrian settles into one of the chairs in front of Elena's desk. He looks more comfortable in casual clothes.

"I found the commit Brent mentioned during the Zoom meeting." Adrian says. "I also found a presentation Brent created yesterday that walks through the code change to Ally in detail. I'm reviewing it with the team in ten minutes, and I'll let you know what we conclude."

"Does Emma or Ravi know yet?"

"They both asked me about the changes, saying that the feedback is great. I already setup a call with all of us for later today. I know we are doing this backwards but if the team likes the code as much as I do, then, as CTO, I'd like to let the rollout continue."

"Do you know who actually wrote the code?"

Adrian furrows his brow, looking confused. "Brent wrote it after hours and sent it to production instead of his local test environment. It's a hard mistake to

make, but somehow he made it.”

“Didn’t Brent say that someone used the Mercurial Admin account to make the commit?”

“No, he inadvertently made the commit as an admin.”

“I must have misunderstood what he told me.”

Elena blinks, clicks the link to the recording, and fast forwards a bit.

“I don’t know how this happened, Elena. I was working after hours on Sunday morning. I was in a hurry to get to a game and forced the commit to be made by mistake. I was going to present it to the team later next week.”

“That does not sound great.” She heard herself saying. *“Should we pull it back?”*

“I’m thinking I can finish the presentation and meet with everyone in the morning. If I can get everyone’s approval then Adrian might let us move forward and rollout the code to the rest of the members.”

“Wow, that’s not how I remember it at all.”

“I get it. The jargon can be confusing. Let me get through this presentation and then we can bring it to Emma and Ravi.”

She blinked as Adrian rose to leave, still bewildered by how she could remember the call so differently from the recording.

###

“Liam, I’m glad you were open to working with me to train Nexus for the

President's Daily Briefing."

Two analysts are sitting in a conference room at CIA headquarters, with a view screen covering one wall. The analyst standing at the center of the table is tall, dark, and muscular. Standing next to him is an analyst of medium height with ginger hair and a modest build.

"I'm looking forward to it, Noah. Any news about Taylor's newborn?" asks the second analyst.

"Yeah," says the first analyst. "If you're in the baby weight and height pool, here are the statistics: The baby is 3.2 kilograms at birth, 51 centimeters tall, with black hair, named Amanda. Family leave will go for three months, and then Taylor would like to work the day shift with weekends and holiday off. "

"Understandable. Hope I will be ready to do the same thing one day."

"OK, " says Noah, "for now, let me just run through all the talking points, so that you can take Taylor's place. I'm sure some of it will be a refresher of things you already know. Stop me with any questions, yeah?"

Liam smiles, gestures with his hand, and says "Go!"

Noah takes a deep breath and begins the presentation. Each slide has a graph or graphic, and Noah talks through each one.

"Trainers are expected to attend the daily PDB input meetings in-person. To quote the manual: *Live face-to-face voice meetings are the most secure way to exchange high-bandwidth communication.*"

Liam says, "As we are doing now."

“Exactly. The link is nice, but nuance is lost in translation, so we use voice as much as possible.”

Liam nods and Noah continues, “The brief includes input from the

- Department of Defense,
- Central Intelligence Agency,
- Federal Bureau of Investigation, and
- Department of Homeland Security.

“The DoD is a major contributor as it includes under its umbrella the National Security Agency, Defense Intelligence Agency, Space Force, among others.”

Noah pauses and Liam asks, “For the in-person, do you go one day and then I go the next day.”

“We can switch off or go together, so long as the weekends and holidays are covered. You can shadow me at first, and then we can decide. Yeah?”

Noah clicks to the next slide.

“First, raw intelligence is gathered from various sources. Then we use it to train each agency’s internal AI assistants. The assistants share selective web access, curated for security and relevance, through a browsing tool named Haven, only as needed. Otherwise, each system is siloed and air-gapped, per federal regulations.

“Each agency has its own cross-functional team, same as ours, with members working as Data Scientists, Machine Learning Engineers, and (of course) AI Trainers.”

“Each assistant then sifts through an impossible amount of information to identify the most relevant and time-sensitive issues for POTUS. “

Noah turns his head and quotes directly from the screen.

The AI assistants distill complex intelligence into actionable insights, covering Threat Assessments, Forecasting, and Strategic Insights.

Noah pauses and then continues to the next slide. “The top-level agencies each prepare a daily data set that is used to update the PDB AI Assistant, Nexus. An AI Trainer for each agency integrates the data so that Nexus can compile the brief.”

Liam says, “Which is where we come in.”

“Yeah. We prepare our data sets before the meeting, and then submit them together at the meeting. We review the initial presentation with the other trainers. When it’s all good, the brief goes to the directors of the four key agencies for senior review. With their approval, it is routed to the Director of National Intelligence to be presented to POTUS.”

“Which is why our data scientists works the ‘C’ shift — so that our data set can be ready by zero five hundred hours.”

“Yeah, POTUS expects the brief to be ready by seven hundred, eight hundred at the latest.”

Liam muses, “It seems to me that the brief is a perfect expression of Conway’s Law:

“Organizations which design systems ... are constrained to produce designs which are copies of the communication structures of these organizations.”

Noah smiles. “Yeah, you’re not wrong. Each department has its own AI assistant, which report up to another department, until we get to Sentinel and Nexus. But the system seems to work, and we’re compliant with all of the OASA guidelines.”

“I guess back in the day,” says Liam, “trainers were just analysts with Excel sheets and way too much caffeine. Now we have AI assistants, but I’m guessing the job hasn’t gotten any easier — it’s just a different kind of hard.”

Noah nods. “AI is great at patterns and probabilities, but it can’t think outside the box like a person can. That’s where we come in — we provide context so AIs can make connections, and then we try to go one step beyond.”

Liam looks back at the screen. Noah changes the slide.

“In order to best meet the style and expectations of each POTUS,” Noah explains, “a custom presentation template is created for each new administration.

“For the current administration, Nexus uses a news format that balances content between international matters and domestic issues. — Show not tell.”

The presentation concludes with the obligatory “Questions” slide. At the bottom, a caption reads “Maintained by the Office of AI Standards and Accountability (OASA)”

Liam sighs. “That’s a lot. I need to sit down.”

“The deck has slide notes. You can access them over the link”, Noah smiles, “as I was doing just now.”

“I don’t see a classification icon.”

“The PDB presentation isn’t classified. OASA wanted something public-facing, for public relations, classrooms, meetings, that sort of thing. And training.”

“Have you have ever taken it to a classroom or meeting?”

Noah shrugs, “No, but maybe I should, yeah? — But for now, let’s focus on getting you up to speed. The briefing never sleeps.”

###

“Hello.”

“Toby, this is Elena Vargas calling. I work with your sibling. I don’t mean to intrude but Brent has you listed as his emergency contact. I hope you don’t mind the voice call.”

“Voice is fine, Elena,” replies Toby, speaking over some background noise announcing flights. “Of course. I remember you. We met at the picnic last year when I was in town visiting Brent. The hospital called me last night. I’m waiting for a connecting flight at O’Hare right now.”

“If it’s all right, I’d like your permission to visit Brent at the hospital. It’s family-only right now, but if you call they might let me in.”

“That’s very kind, Elena. But Brent is in a medically induced coma right now. They warned me that he would be nonresponsive, at least for now.”

“¡Qué terrible!” — But I’d still like to be there, if it’s all right with you.”

“Of course. I have the number, and I’ll call right now. If you want to check on

his status, the password is 'baseball'."

"Thank you, Toby. Let me know when you arrive."

"I took the first flight this morning, but there's a three-hour layover, so it won't be until later tonight."

"Think good thoughts. See you soon."

At the hospital, Elena explained that she should be on the visitors list. Peering at the screen, the critical care nurse says that she can visit but adds "Remember that Mr. Geller will be unresponsive right now."

"I downloaded a book to read to him. I guess that's suppose to help."

The nurse smiles. "It's room 342." She points down the hall.

"Brent, I'm so sorry this happened to you."

Brent is laying on his back, the bed is slightly inclined. He is not intubated, but wearing an oxygen mask. There are blue blocks on either side of his head, keeping it straight. A large bouquet of flowers were on the table next to the bed. The colors match the blue and orange Pulse logo.

Elena pulls up a book on her phone: *Greatest Baseball Stories Ever Told*. The first story opens with the famous bit by Abbott and Costello, "*Who's on first*." Reading the ancient comedy makes her laugh and cry at the same time.

Elena takes a deep breath to compose herself.

"I hope Adrian is right and the code is your brainchild, Brent. People love the changes to Ally."

Elena says, her voice choking. "I just wish I more of a digital packrat, like you. You had your recording light on during our last call. I know you liked to keep local copies of everything on your phone. Then I'd have my own recording of our call."

Elena takes another deep breath and begins reading again.

Costello: Who's on first?

Abbott: Yeah

Costello: Go ahead and tell me

Abbott: Who

Costello: What's the guy's name on first?

Abbott: No, What's on second

Costello: Who's playin' second?

Abbott: Who's playin' first

Costello: I don't know

Abbott: He's on third base

While Elena is reading, the sine wave on Brent's brain monitor changes, for just a moment, and then returns to the original wave.

###

"Do you have a minute?"

Carla Mitchell stands up, tall and lithe. She looks around the crowded but quiet tavern. Country western music is playing but the crowd noise is only a low hum. Nearly all of the patrons are conversing by link.

"Sure, where are you?"

"In the back."

She ducks around a corner of the room and leans up next to Noah at a high table, her long thick brunette hair pulled to one side. At 190cm, Noah is still 10cm taller than Carla.

"What's up, big guy?"

"Have you heard anything unusual about Pulse lately, Carla?"

"I heard that the feeds in the interest hubs improved over the weekend for everyone on the west coast. The mystery is why Pulse is not making it more of a thing. The changes are suppose to be goat."

Noah raises a fist and switches from the regular app to the secure Signal version.

"My in-law told Tessa that the changes were made by a rogue developer, who literally hit a guardrail with his car on the El Camino Real yesterday."

"Rogue developer? That's a thing?"

"Not an every day thing, no. What has Tessa worried is that Elena's wheelchair malfunctioned around the same time as the car crash."

"What! Is Elena all right?"

"Yes, but Tessa is convinced that the greys and unexplained anomalous phenomenon are behind it."

"Tessa thinks ETs and UAPs are behind everything."

Noah rolled his eyes in response. *"I know. I just wish the Air Force would fish or cut bait. Are the 2% of unexplained reports non-humans or something else? After all this time, you'd think we'd have it figured out."*

"Either way, not FBI or CIA jurisdiction."

"I don't have enough for an official report about Pulse, but I wanted to mention it to someone on Social Media, just in case."

"No worries. Consider it mentioned."

Carla tilts her head in the direction of the front room, and they rejoin the group of analysts waiting for their lunch order.

###

Adrian settles into one of the two chairs in Emma's office.

"Elena is out of the office, but I'll update her on whatever we decide to do."

"Thanks, Adrian," says Ravi from the other chair, speaking with a light British accent. He brushed back a lock of thick black hair. "Where do we stand with the software?"

"The development team is on board with Brent's changes. We do have some questions but they can wait for now. The consensus is that we can proceed with the rest of the rollout."

Emma asks, "Any news on Brent's condition?" Around her neck is a woven gold choker with the Pulse logo. The gold weave matches her ear rings, barely

visible under her shoulder-length brown hair. A patch with the same logo is embroidered onto Adrian and Ravi's matching polo shirts.

"Elena is at the hospital as we speak, and Brent's sibling is on his way here from Michigan. For now, they ... put him in a medically induced coma."

"How awful! — Did HR send something to the hospital?"

"I believe so," says Adrian.

"Since Brent must be on a feeding tube, make sure it's **not** the usual edible arrangement."

Ravi turns to look directly at Emma. "As to the rollout, if Adrian is OK with the code, then I'm comfortable with proceeding."

Emma nods. "I feel badly about what's happened to Brent. If the code is solid, then the least we can do is let it roll out. All the feedback I've heard is overwhelmingly positive, and the quarterly earnings call with investors is next week. If we get this change fully rolled out, then we can include the member enthusiasm as part of our outlook."

Adrian also nods in agreement. "We're seeing a 15% increase in engagement across the board — that's massive."

Ravi asks, "Adrian can you share a link to the commit? I'd like to see for myself what everyone is raving about."

"Sure thing. I'll include a link to Brent's presentation too. The presentation sealed the deal for us."

###

“We’re keeping the code.”

“Nice!” says Tessa, approvingly. “Ally has definitely improved. Adrian had us run a full regression test suite and then QA went all-hands on exploratory testing too. The automated tests came back all green, and people won’t shut up about the hands-on experience.”

“I visited Brent at the hospital today. He’s still in the coma, but I felt like someone should be there while Toby is flying in.”

Tessa sighs and touches Elena’s hand.

“Tess,” Elena continues, “when I told you about my meeting with Brent on Monday, what did I tell you about the code’s author?”

“You said Brent didn’t know who made the change and that he was going to check with the other developers.”

“So I didn’t say that Brent was the author and that he posted the change himself by mistake.”

“Not that I recall. — Umm, Lanie, I’ve been meaning to tell you that I might have mentioned it to Noah.”

“Might?”

“OK, I was freaked out by the chair crash and the car crash, and talking things through with Noah always makes me feel better.”

“What did you tell him, *exactamente*?”

“I might have said it seemed like a strange coincidence and that, ummm, abductees sometimes talk about engines racing forward.”

Elena shakes her head. She could feel a migraine coming on. “What did Noah say?”

“He said to be sure you talked to Adrian about the code change, and that I should stop blaming everything on aliens.”

“Good advice. But please don’t discuss Pulse with Noah. I know he’s your sibling, but we don’t need the government involved in our business.”

Tessa nods apologetically. “I know I get carried away sometimes, but I just ... I want to protect you, Lanie. And when everything starts feeling weird, I don’t know what else to do.”

Elena reaches out and pulls Tessa closer.

After a moment, Tessa asks, “Did you call about the chair?”

“Yes, they’re sending someone out tomorrow — Can you make dinner tonight? I need to lie down for a few minutes.”

###

“Office of AI Standards and Accountability, Joanna Harman speaking.”

“Hello, Anna, it’s George Hammond at Homeland Security. I hope there’s time for a question this morning.”

Joanna turned around a name plate on her desk. It read “Jill of all Trades”.

“No problem, George. I’m caffeinated and ready to go.”

“First, I appreciate all the help your office provides to DHS and the other intelligence agencies.”

“Glad to help. That’s what we’re here for.”

Hanging on the wall behind Anna’s desk are advanced degrees in Cognitive Neuroscience and Computer Science from MIT, showing the name “Joanna Lee.” On a credenza beneath the degree is a family portrait of Joanna with her spouse and two children, standing on a walkway with the classic Disney World castle in the background.

“Second,” continues George, “I’m putting the final touches on the data for the Presidential Brief meeting today. I’m trying to correlate two data streams and my access to one stream is limited. Can I send you a link?”

“Sure. Shouldn’t take a minute. Access is what we do. We have almost an hour before the meeting at zero five hundred.” Her voice distracted and flat.

Joanna transferred the hyperlink from her implant over to her workstation and waded into the data streams.

###

“For today’s brief, is there anything we should mention about Pulse?”

Carla replies to Noah’s message over the neural link Signal app. *“Nothing that rises to the level of the PDB.”*

“OK, see you there.”

The Deputy Director of the Office of AI Standards and Accountability (OASA), Dr. Sophia Marquez, leads the daily training session. OASA is also the body that curates the Haven browsing tool.

“Happy Wednesday,” says Dr. Marquez. She made a show of pressing a button on her tablet saying, “Nexus monitoring is now disengaged for this room, and neural link usage is blocked. You may use your workstations to submit your data sets for analysis.”

Marquez looks around the room before continuing, “Let’s start with DHS today. Dr. Hammond, what are the key data points you pulled from Ruby today?”

Each department gives their report in turn, and outlines one or two topics that they expect Nexus will select for the brief. Federal regulations require human oversight of all agency AI Assistants. Asking the trainers to predict the topics Nexus will include is an important element of AI accountability.

Noah is the last trainer to report. He introduces Liam and makes their report.

“Thank you, Dr. Harper. Welcome aboard, Dr. O’Neill.”

She presses a button on her tablet and swivels in her chair to view the large view screen that covers one wall of the meeting room.

“Nexus, present today’s briefing.”

The presentation takes the form of a newscast, which is the template preferred by the last two administrations. The anchor is an AI generated composite of popular newscasters, past and present. The effect is both eerie and strangely comforting.

The AI-generated anchor leans forward slightly, her voice, rich and measured. The pauses between segments feel calculated, almost human — but not quite. It's easy to forget you aren't watching a natural person until you notice the perfectly even cadence, absence of hesitations, and some subtle errors.

Selected topics include graphics, animations, and video segments that emphasize key points. After each segment, the newscaster pauses, in case more information is required. POTUS often asks followup questions during the brief. Nexus is also linked to the president's phone in case there are followup questions between briefings.

Martinez simply says "Continue" each time the newscaster pauses.

After covering the expected topics for all four agencies, the newscaster shifts position and leans forward. "We now have a developing story to report."

Marquez sits up straight as special reports are rare.

"Earlier this week, the social media platform Pulse released an update to its AI Assistant, Ally. The update is exceeding the highest expectations of its members. The results may be significant enough to warrant an OASA inquiry to see if the breakthrough can be shared with the AI community."

Keeping his elbow on the table, Noah raises his hand shoulder-high to attract the attention of Dr. Martique, who then looks his way.

"Deputy Director, in the interest of full disclosure, my in-law is the Chief Experience Officer of Pulse."

"Noted, Dr. Harper."

"Nexus, why did you include the Pulse update in today's briefing?"

“The National Traffic Safety Board filed a report of an incident with a self-driving car that involved one of the Pulse developers. The report prompted me to cross-reference Pulse demographics, and usage increased significantly this week. I consulted Haven to review the Pulse member feedback which is peaking as the rollout progresses toward the east coast.”

Martique turns back toward the group. “We’re at our timebox. Mitchell can you stay behind, along with Harper? The rest of you are free to leave ... or stay, as you wish.”

While most of the other trainers file out, Martique disables monitoring of the room again.

“Mitchell, social media is under the FBI’s purview. What do you think of the Pulse update?

“I think Pulse will consider this — breakthrough — a competitive advantage, and they will not be eager to share their intellectual property. It could cement their position as the dominant social platform.”

“Harper, does your relationship with Elena Vargas give you any special insights?”

“I’m not acquainted with anyone at Pulse aside from Elena, so, no. Pulse marketing does like to talk up its Ethical Algorithms. If Pulse were able to obtain a software patent, the licensing fees might be an incentive, yeah?”

Carla nods.

“I’ll have someone from OASA follow-up, but I’m not hopeful anything will come of it. Right now, I feel that the Pulse update is an interesting tech byte, but

it doesn't warrant inclusion in the briefing." Raising her head, Martique sees that Joanna Harman also stayed behind.

"Dr. Harman, can you reach out to Pulse about the licensing idea?

Joanna nods assent.

Dr. Martique turns to her tablet and enables monitoring, "Nexus, let's hold the Pulse segment until further notice."

"Acknowledged."

###

Wednesday morning at ten, Siri plays the door chime on Elena's and Tessa's phone.

Elena peers at the screen, expecting the technician come to look at her chair. Instead, there are two people in business attire, a man and a woman. The woman holds up a badge to the camera.

"Good morning. We're from the NTSB. We're investigating the incident with Brent Geller's self-driving car. We understand that you spoke to Brent on Monday afternoon before the incident."

Elena zoomed in on the badge, and Siri superimposed a green check-mark validating the badge. The badge identified Lena Park as a Senior Investigator for the National Transportation Safety Board.

"Please come up to the third floor, and I will meet you at the elevator."

Settled in Elena's living room, Tessa joins them and asks, "Can I get you

anything? Coffee? Chai?"

"Thank you, but we're fine." Park answers for both of them. "This is my partner, Ben."

"And this is *mi esposa*, Tessa Harper."

Park is calm and clinical, her gaze sharp as she studies Elena and Tessa. Ben Tate leans forward, curious and slightly more open, as if piecing together a puzzle in his mind.

"I don't mean to be indelicate, Ms. Vargas," says Tate, "but I checked your Pulse company profile before we came over, and I expected to find you using a wheelchair. Has something changed?"

"Well, I do have prosthetics that allow me to walk without the chair, but it is true that I prefer the chair. I get migraines if I use my neural link too much. I actually thought you would be the technician from Porto Mobility come to fix my chair." Elena gestured toward one corner of the room, where the chair was parked.

Tate turns his head. "Is there a problem with the chair?"

"Not really. It was acting up Monday night."

Tessa blurts out, "Holy cow, Lanie: one way to describe it?! That thing almost killed you!"

"It's fine, Tess. They came to talk about Brent, not my *pendejo* chair."

Park and Tate exchange glances, and then Park says "First, thank you for speaking with us, Ms. Vargas. We know this must be difficult, given your

connection with Mr. Geller. We're here to go over a few specifics regarding the incident."

"Yes, I'll help however I can. I think of Brent as a friend as well as a colleague. It's all still a shock."

"We understand. I just want to confirm a few details to clarify the circumstances. Car accidents are very rare these days, given all of the safety features in newer models, and when they do happen, we investigate fully."

Tate spoke up, "Mr. Geller's self-driving car, a fairly new Stratos EV, went off the road between Murray and Sunnyvale. Was there anything going on at work that might have distracted Mr. Geller?"

"Possibly. There was a procedural question regarding a software change, and Brent was digging into it for me. Our CTO Adrian Cho is handling it, and I'm told it's all good now."

Agent Tate leans forward, clasping his hands. "We haven't found any indication that Mr. Geller's collision was caused by mechanical failure. Witnesses say that the car suddenly accelerated, as if the driver had pressed the pedal all the way down."

"I wouldn't say that Brent was distraught about anything at work. He is a highly respected engineer, and I give Brent free rein."

"Hire smart people and let them tell you what to do?" Tate asks.

"Yes, something like that."

Tate continues, "And you say that your chair also had an issue Monday night?"

“Well, yes. I was on my way to the endless pool on the second floor. I like to swim against the current when I can’t get to the full-sized pool at the YMCA. The chair rolled forward *rápidamente*, and I ended up face down in the pool.” Elena folded one arm, in front of her, palm down. “Luckily Tessa got home just in time to pull me out.”

The investigators looked at each other again, clearly having a side conversation.

“Ms. Harper, do you work outside the home?” asks Park.

“Yes, I’m the Chief Quality Officer at Pulse,” says Tessa. Then, smiling, “Elena makes sure we build the right thing, and then I make sure we built it right.”

“Does the NTSB also investigate wheelchairs?” asks Elena.

“No, just planes, trains, automobiles, buses, and boats,” Park replies, and then asks, “Do you know if Mr. Geller might have left his phone at the office. Phones often have telemetry that help with our investigations.”

“I didn’t go into his office yesterday,” says Elena, “but if you asked to see Adrian Cho, I’m sure he would check for you. Adrian works from the office on most days.”

“Thank you, we will go see Mr. Cho at Pulse,” says Park, standing up to leave. “We appreciate your courtesy, and I hope your chair checks out.”

Tessa also stood and walked Park and Tate to the elevator.

“Not for nothing,” Tessa says as the elevator arrived, “but two similar crashes

a few minutes apart sure seems hinky. It doesn't feel like a coincidence to me." Tate looked up, tilted his head, and slowly nodded as the doors slid closed.

In the elevator, Park says, without turning her head, "Let's not go there. Remember, we're investigating a car crash. A wheelchair is out of scope."

###

"Adrian, these are the two investigators who asked to see you."

"Thank you, Susan." Standing up behind his desk, Adrian gestured for the agents to come into his office and take a seat.

"Thank you for seeing us, Mr. Chou. I'm agent Park and this is my partner agent Tate."

"Good morning. What can I do for the NTSB?"

"We just met with Elena Vargas, and she said you would be able to check to see if Brent left his phone in his office."

"I take it that you are investigating the collision?"

Park nods.

"Sure thing. Siri, ask Susan to check Brent's office to see if he left his cell phone there."

"We'd also like to ask about" Park paused to check her notes, "*— the procedural question regarding a software change —* that Brent was handling before the crash."

Adrian furrowed his brow and leaned back in his ergonomic Aeron chair. “Ummm, is that pertinent to your investigation?”

“Yes,” says Tate. “We’re wondering if anything might have been distracting Mr Geller before the crash.”

“He was probably proof reading documentation and letting the car drive. Brent had created some revolutionary code as a side project last week. He skipped a step before deploying it to production, and Brent was playing catch-up. The development team reviewed it carefully yesterday, and everyone is on board, including the company’s founders.”

Tate asks, “Is that what caused the improved hub feeds that everyone is talking about.”

“You bet. That was all Brent. Best piece of coding I’ve ever seen. Brent’s code did not just improve the Association matches and hub feeds, it is a complete game-changer for how Ally interacts with users. The engagement metrics are through the roof.”

“I hope he gets well soon,” says Park.

Adrian pauses and looks up for a moment. “Susan tells me that she doesn’t see a phone anywhere in Brent’s office.”

“Thank you, Mr. Cho,” agent Park says, standing to leave. “We appreciate your checking for us.”

###

“Thank you for meeting us, Mr. Geller. Has there been any change in Brent’s condition?”

“No, they expect the coma to last several days.”

“I’m Agent Park and this is my partner, Agent Tate. We just have a few questions about your sibling’s background that would help with our investigation.”

“Does the NTSB typically handle car crashes?”

“Yes,” says Park. “For the last few years our mandate has included investigating incidents where a self-driving car may have malfunctioned.”

Toby nodded.

“Did you find Brent’s phone among his other possessions?” asks Tate. “If the phone’s Motion and Fitness is enabled, it could help us fill in some blanks,”

“No. Brent slept with his phone. There was a stand by his bed, to make it easier to look up things up at night. He took his phone every place. It would have been in the car with him.”

“Would you be open to consenting to a court order to allow us limited access to Brent’s cloud account?” asked Tate. “It would really help us.”

“Uhhhh, let’s wait a few days and then maybe Brent can consent on his own.”

“Sure thing. Just thought we’d ask,” says Tate, apologetically.

“Do you and Brent have an extended family?” asks Park.

“No, it’s just us now,” says Toby. “Our father has been out of the picture for as long as I can remember. Our mother passed a year ago. She was an only child.

Brent and I don't have any other siblings. We're both single."

"Do you know if anything had been bothering Brent?" asks Park.

"We hadn't talked recently. We keep in touch sporadically. The last time I saw him was probably the Pulse company picnic a few months ago." Toby smiles.
"Brent rocked the four square games."

"Did Brent have friends outside the office? Maybe a special someone?" asks Park.

"He kept in touch with friends from college, from RIT, and they would take international vacations on most years. Japan .. Germany ... Rio de Jiro ... but Brent didn't date much. He played his share of video games. That was his actual major in college, Game Design. But he was a college co-opt with the Pulse office in New York, and then he stayed on. "

"But no local circle of friends?" Park asks.

"Pulse was everything to Brent," Toby says. "He started as a co-opt and worked his way up. He was always excited about the projects — said it was like being on the cutting edge every day. — But I don't understand what this has to do with the car malfunctioning."

"We haven't been able to determine what caused the car to malfunction," injects Tate. "The Event Data Recorder was damaged, and so we don't have the usual telemetry. The ERD tracks everything: Steering inputs, speed, system diagnostics — It's like a black box for cars. Without it, or the phone, we're working blind."

"The personal questions help us rule out driver error," Park says quietly.

“You think Brent drove into the guardrail himself?”

“We don’t think anything right now, Mr. Geller” says Park. “We’re just asking routine questions.”

“Are there more questions?” Toby asks, sounding tired. “I’d like to get back up to the room. When Brent wakes up, he can decide about the data.”

“Thank you for your time, Mr. Geller. We appreciate that you took the time to talk to us.” Park and Tate stand up to leave as Toby exits quickly.

“Well, that went well,” says Tate.

###

Toby sits down in the chair next to Brent’s hospital bed. He pulls up a novel he had been reading. Toby had read the first half during the flight, and so he continued from that point.

“First thing I do is check my cell phone. It needs recharging, so I have to hunt down the charger and plug it in before I can collect my messages.”

While Toby is reading out loud, the brain wave monitor changes again. Brent’s link activity indicates flickers briefly before displaying a new text. It wasn’t from a recognized source. There was no sender ID. Just the words:

“Let go, Brent, let go. You did what you came here to do. It’s time to come home. Let go.”

Toby continues with the book: *“Four missed calls, one voicemail, two texts.”*

Lights blink rapidly. A klaxon sounds. “Code 2!” someone is shouting, “Room

342.”

Toby is hustled out as medical staff pour into the room.

A few minutes later, a doctor joins Toby in the waiting room. “I’m afraid his injuries were too serious. We had hoped that inducing the coma would bring down the swelling, but Brent slipped away, despite our best efforts.”

Toby hangs his head, overwhelmed by a feeling of loss.

Time passes. Toby pulls himself together and calls Elena.

###

“Adrian, I’m afraid I have bad news.”

“Is it about Brent, Elena?”

“Yes. His sibling just called. Brent passed away without waking up.”

“That’s terrible.”

“I’m about to schedule a staff meeting, but I thought I’d let you know first. Emma and Ravi are in a meeting together. I’ll call them in a few minutes and then post the meeting invitation.”

“How are you holding up? I know you liked Brent.”

“*Más o menos* — Did the investigators get a hold of you?”

“Yes. I guess they will have to tie it up now. But if they do come around again, let me handle any questions about the algorithm.”

“Absolutely. I tried to say as little as possible, but they caught me off guard.”

“Can you schedule a meeting with the four of us first? And maybe HR. We’ve never announced an employee’s death before. — Brent was more than just a lead engineer. He was part of the Pulse family. This is going to hit everyone hard.”

“I’ll set it up and come into the office,” says Elena, her voice choking.

###

“I just don’t know, lieutenant,” says Park. “We can’t find a mechanical cause, and Brent didn’t seem to have any personal issues. He had a healthy bank account balance, credit card was always paid in full, and according to his sibling, Brent traveled to a different country every year for vacation. He played softball and video games, took holidays, and worked. — Life of Riley.”

Park immediately regrets her choice of words. The news of Brent’s death the day before reached them just as the Thursday morning meeting started.

“Geller made a mistake at work,” Park continues, “and some experimental code escaped the laboratory, but everyone is loving the experiment.”

“The coincidence with his boss’s wheelchair is still weird,” says Tate. “That and the missing phone.”

“Wheelchair?” asks Lieutenant Callahan. He is a fit person with thinning grey hair, sitting behind an ancient wooden desk. The agents stand near the office doorway. “Is this one of your tangents, Tate?”

Tate looked Callahan directly in his green Irish eyes. “His boss, Elena Vargas, uses a wheelchair,” says Tate slowly. “The night of Brent’s crash, Elena Vargas

was tossed into an endless pool by her very high-end wheelchair.”

“Endless pool?”

“It’s like a meter deep. You swim against a current created with water jets. Like a treadmill for swimming. A Jacuzzi turned sideways.”

“Hmm. I don’t know about the chair,” says Callahan, “It’s more likely that the contraption slipped on the wet tile. It’s the airbag failing to deploy that bothers me. A body flying through the windshield is not a good visual. Was Geller in the habit of not wearing a safety harness?”

Park says, “His sibling said that Brent engaged the harness as soon as the beeping started, if not sooner, like anyone else, lieutenant.”

“So one scenario is that car decided to lurch forward on its own, disengaged the harness, and disabled the airbag. The other scenario is that Brent unclipped his harness and punched the accelerator. But that doesn’t explain why the air bag didn’t deploy.”

“If the Event Data Recorder wasn’t blank then maybe we would know,” says Park. “But it’s like the car never recorded anything since the day it rolled off the lot. There are a lot of missing pieces.”

Tate says, “We could still get a court order for the phone’s cloud data. It might be able to tell us if Brent tried to brake before the crash, or if he was using his phone when the car accelerated.”

“I don’t think the phone data will help us,” says Callahan. “I’m worried by the air bag failure.”

“It’s possible that the airbag is defective,” says Park. “There was a recall for a

prior model, but nothing specific for this model yet. The manufacturer says it's been tested throughly, but they always say that."

"I did examine the airbag from the crash," says Tate, "and I don't see any reason why it would *not* deploy."

"Were you able to track down the reports by witnesses of a drone at the scene?"

"We were able to get dashcam footage from one witness, lieutenant," says Park. "There is a blur on the screen, but I can't say for sure that it was a drone. Even so, there are a lot of drones flying everywhere all the time."

"I don't like it," grumbles Callahan, "but the last clear chance to avoid injury was for the airbag to deploy. Write it up as Unconfirmed Mechanical Failure, blame the bag, and move on."

"Then could we move on to the wheelchair failure?" asks Tate, ignoring the frown on Park's face. "Essentially, it's a single-passenger vehicle. The electronics can be as complicated as a car, and the best ones can cost just as much as a motorcycle."

"*What are you doing?*" Tate felt Park's exasperation come through the private text.

"You're saying a top-of-the-line wheelchair tossed its owner into a pool?"

"An endless pool, yes."

"I do like a challenge," says the lieutenant, his voice becoming lighter. "Electric wheelchairs are not usually under our purview, but I'm up for an exception. Remember: 'there's a thin line between automation and abdication,

and we're the ones tasked with knowing the difference.'"

"You repeat the 'automation versus abdication' quote when you think AI is involved," says Park. "Do you think all this could be AI related?"

"I don't think anything yet. Let's find out."

###

Joanna Harman paces back and forth across the polished hardwood floor of her living room, occasionally glancing out the large bay window.

The Thursday afternoon sun bathes the room in a soft, golden light but it does nothing to calm the gnawing anxiety spreading out from her chest. She clutches a cup of tea in one hand, though it long since went cold. Her spouse, Tom, sits on the couch, watching her with quiet concern, his tablet abandoned on the living room table.

"I don't know, Tom." Joanna says out loud. "There are so many parental decisions. First, it's vaccines, then it's tablets, passwords, pierced ears, cosmetics. Soon it will be tattoos. For Todd, it was circumcision and a robot dog. Now it's whether to put an implant behind our kid's ear. — This is a huge step. What if it's too much for her?"

Joanna pauses to take a deep breath. She links, "*A neural link and a phone? She's only twelve.*"

"Half of her friends are already linked," says Tom, switching back to voice, "and, before the year is out, the other half will be too." Tom leans forward, resting his elbows on his knees. "She's a smart kid. You've been preparing her for this. We both have."

“That’s not the point.” Joanna sets her cup down with a sharp clink. “It’s not about how smart she is or mature she is — it’s about what this technology can do to people. The phone is bad enough: Real-time data streams, immersive experiences, AI assistants.”

“Anna, we can monitor her usage, set limits, teach her digital responsibility, we’re doing that now with how she uses her tablet.”

“But the neural link? It’s a whole different world. Everything, everyone is just a thought away. It’s too much, Tom. Too much connectivity, too soon.”

Tom gives her a small, reassuring smile. “The link is just an interface to her phone. Her usage shows up in the app, like anything else. They block the link and cell phone usage at school, and we could add off-link time to our off-screen time.”

Joanna pulls back her brown hair, looking unconvinced.

“You work with connectivity every day,” Tom reminds her. “You trust it to keep our nation secure. Why not trust it for our child?”

Joanna turns to face him, crossing her arms. “Because I know exactly how powerful it is to have access to everything. I see the good it can do, sure, but I also see the dangers — data breaches, manipulation, over-reliance. A twelve year old brain is still developing. The ability to separate reality from artificial reality is ... fragile. What if she gets overwhelmed? What if something goes wrong? A malfunction, a hack, a —”

“Anna,” Tom interrupts gently, standing up and taking her hands in his. “You and I have had neural links since college. Kids start younger now. Some parents are chipping six year olds with GPS. — If you’re concerned about the implant, we could start Julie on a BCI headset.”

Joanna uncrosses her arms, “No, we don’t have to go that far. I know it’s a simple out-patient procedure, covered by our health plan, and we can have the nurse handle it at the doctor’s office.”

Tom continues, “You’ve given lectures on how to responsibly integrate AI into human lives. You’ve written protocols for ethical AI use. You’ve spent years making sure our technology is safe. You can guide her through it. You *will* guide her through it.”

Joanna sighs, the tension in her shoulders easing under his calming touch. “I know. I just ... I feel like once we give her that neural link, we’re opening a door we can’t close. She’ll be more connected to the world than we ever were at her age. And what if we lose her to this ... this ... endless digital noise?”

Tom tilts his head, his gaze warm and steady. “Or what if she thrives? What if this step gives her opportunities we never had? She could learn faster, experience more, find her passions earlier. You always say the future is about balance. We can help her find the right balance.”

Joanna closes her eyes for a moment. When she opens them again, she sees her own concern reflected in Tom’s face — but also his hope. She nods slowly, and links:

“Okay. But we set boundaries. Strict ones. Same as the tablet. No unrestricted access. We’ll take it slow. Monitor everything.”

Tom smiles, kisses her forehead, and links, “*We’ll do it together.*”

Joanna leans back and smiles weakly in return, and says out loud, “Together.”

She glances over at the family portrait on the wall, her gaze lingering on their

offspring's bright, curious eyes. Her heart still feels heavy, but beneath the weight, there was a glimmer of cautious optimism.

###

"Welcome to Porto Mobility. Can I help you?" His name tag reads "Frederico, Store Manager".

Under the name tag is a lapel button with a QR code for access to the store's link account. Ignoring the QR code, Park flashes her badge, and says out loud. "We're from the National Transportation Safety Board, I'd like to ask you about Elena Vargas's wheelchair."

"Yes, I have it in the back. I have no idea what went wrong. Ms. Vargas has a FullCare plan, so we gave her a new one. — The NTSB is investigating wheelchairs now?"

"We're investigating this one," says Tate. "May I see the chair, please?"

"Let me call corporate first. This wasn't covered in my training."

The agents know that they are on shaky ground. A police report usually gives NTSB jurisdiction. But Elena hadn't reported the incident, and it was (after all) a wheelchair. The investigators wait while the store manager calls corporate.

"They say you need a warrant."

"Could you hand me the phone please," asks Tate, holding out his hand.

"Hello, this is federal agent Ben Tate. I can go to a judge and get a warrant for the wheelchair. But that will create a public record that the news networks could pick up. The Chief Experience Officer of Pulse being dumped into her pool by your chair might make for a juicy news item. For now, I just want to examine the chair." Tate listened for a moment and handed the phone back to the store

manager.

Lowering the phone, Frederico says, "Corporate says you can look at the chair but not remove it from the premises."

"I'm good with that," says Tate.

"Can I get you some coffee or anything, agents?"

A few minutes later, Tate says, "I don't see what's wrong with it either." Looking at the manager, he asks, "Do you have any ideas, Frederico?"

"Not really. I mean if test mode were engaged, someone could override the safeties and run the chair into a curb. But you need a special console to use test mode."

"Do you have one of the consoles?"

"Yes, we use it for demonstrations. Just a second."

The manager goes out front and returns with a device that looks like a gaming console.

"That chair is inoperable now, but I have another one here that we can use. I just need to scan the serial number first."

The manager tips up the chair and points the console under the seat. Lowering the chair, he uses the console to move the chair around the backroom.

"The chair usually stops before it runs into anything." Frederico points the chair at a box. It beeps and stops before hitting the obstacle. "But I can override and let the chair hit something." He puts the chair in reverse, touches some controls, and moves it forward again slowly. This time the chair doesn't beep, and it bumps into the box.

"Is there any way I can get one of these consoles?"

"Not really. We don't sell them, and the range is only a few feet."

"Thank you, Frederico," says Park. "We'll be in touch if there is anything further."

As they were leaving, Frederico says, "You know a lot of cars have test mode now too."

"What do you mean?" asks Tate, "Since when? That sounds dangerous."

"There are protections. You need to plug a special dongle into the car, but then you can program an app on your phone to control a self-driving car the same way we controlled the wheelchair."

"Dongle?" asks Park.

"Umm, an OBD I think it's called."

"On Board Diagnostic connector?" asks Tate.

"Yeah, that's it. — I worked for a car company before I came here. We're not suppose to talk about it ... but I'm not suppose to withhold information from federal agents either ..."

Tate nodded, taking the hint. "Please tell us what you know about test mode."

"The manufacturers run sophisticated tests through the connector when the cars are being developed," Frederico explains. "Self-driving cars make companies paranoid about liability. They lock down everything — diagnostics, telemetry, event recorders, test mode — because one bad headline can tank a

stock.”

“You mean cars like a Stratos could have a test mode?” asks Park.

“Yes. It’s fairly recent and kept on the down-low. My supervisor used to say that ‘The first rule of test mode is that we don’t talk about test mode’.” Frederico pauses and then adds: “But if it were used, it would show up on the Event Data Recorder.”

Back in the car, Tate links, *“Test mode. Weird. Now what?”*

“Let’s see if there is any security footage from the pool area.”

###

Siri rings the door chime on Tessa’s phone.

“Sorry to intrude”, says Park, “but we have some more questions about the wheelchair crash.”

“The NTSB is investigating wheelchairs now?”

Park sighs. The question is becoming a refrain. “We’re investigating this one. May we come up?”

Tessa meets them at the elevator. “Elena went into the office. Have you heard about Brent?”

“Yes. It seems like he would have had a bright future,” says Park.

Tessa asks, “How can I help?”

“Does the building have security cameras in the pool area?” asks Tate.

“Yes. We already have the footage if that’s what you want.” She leads them back into the living room. “Let me get my tab.”

Tessa returns carrying her tablet and another device.

“The building gave me this write-once Bluetooth drive for the insurance company, but I have it downloaded if you want me to drop a copy onto your phones. The building superintendent said the video system isn’t connected to the web to avoid tampering.”

“Tampering?” asks Park.

“I guess people were using AI to modify security video to inflate claims. If someone installs a certified air-gapped system, then insurance companies will discount their premium. — I guess fraudulent insurance claims is another department, yes?”

“Are you filing a claim?” asks Park.

“The store replaced the chair, so we decided not to file a claim or police report. The building is already upset that Elena went into the pool area by herself. More publicity won’t help. — Here, you can take the drive. We don’t need it now.” Tate accepts the drive from her outstretched hand and drops it into an evidence bag.

Park and Tate peer at the footage that Tessa copied to their phones. It shows the wheelchair heading straight for the pool, without slowing, and tipping over into the water.

Tessa looks the other way, clearly distressed.

“Thank you, Ms. Harper. The video is all that we need for now.”

###

"Park, come here, look at this."

Tate has the Bluetooth drive plugged into the office view screen, hoping that the copy on the drive was in a higher resolution. The video shows the same scene, but the windows in the background are clearer than on the phone version.

"Does that blur outside the window look familiar?"

Tate splits the screen and brings up the dashcam footage from Brent's crash.

Both videos show a silver blur about the size of a basketball hovering at each scene.

"That is not a coincidence," says Park out loud.

Review Questions

1. Writing - Is the style engaging, clear, and concise? Or dry and jilted?
2. Characters - Do the characters seem realistic and three-dimensional?
3. Background - Should there be more imagery? Longer descriptions?
4. Events - Does the sequence of events flow naturally?
5. Foreshadowing - Is there the right amount of foreshadowing?
6. Technology - Are you able to suspend your disbelief over the technology?