



**2038**

**A SMART PORT STORY**

**PART 3**

A #SDP19 EXCLUSIVE

# 2038: A SMART PORT STORY - PART 3 - A REVIEW

Richard Joy, Editor, Port Technology



So it's finally here, Part 3, the final part of the trilogy in the highly popular 2038: A Smart Port Story from INFORM. We're delighted this will be premiering at the Smart Digital Ports of the Future Conference in Rotterdam and as a little taster, it's fallen to me once again to review this most interesting and innovative piece of work. Written by SVP of the Logistics Division of INFORM Dr Eva Savelsberg, along with Head of Marketing of the Logistics Division Matthew Wittemeier, this sci-fi offering is symbolic of the effort, creativity and dynamism of the team at INFORM.

They are a pleasure for us to work with at PTI as they are so forward-thinking and willing to challenge the audience that they make our role easy, as they truly complement our vision for both the Smart Digital Ports of the Future Event, and our Container Terminal Automation Conference, which runs in the spring each year. I say this

because the wave of technological change in technology is forcing us to change how we perceive business, the port sector, our working practices and even our very lives. This has always been a key consideration at our events, and to see INFORM not only carry that vision, but articulate it in a highly creative, brave and visionary manner as in 2038, is inspiring for us at PTI and the wider industry. So, on that note, it's time to move on with the review of the third and final instalment, however before I move onto that, it's worth having a little recap on Part 2.

## **2038: PART 2**

For those that read my review of Part 2 in Edition 84 of The Journal of Ports and Terminals, you may remember I was eager to stress how the authors had crafted a piece which was rich in human characterization. One may not expect this in a sci-fi novel on the port sector, but it provided a fantastic

depth to the piece, and emphasised that humans are wild, brilliant, visionary but also tragic beings and that such attributes are all the more evident when stacked up against the emotionless logic of an AI bot.

The authors weren't just utilising this juxtaposition for its poignancy, but actively, and rather artistically, blending it in to the story in order to explore and highlight how this dichotomy of man and machine can create social, political and emotional complexities when it is acted out in the world.

I ended my review of Part 2 with a series of questions that the piece subtly raises, these revolved around whether humans are here to advance technological civilization or vice versa, and how humans and machines are going to organise themselves in a future society when artificial intelligence far supersedes human capability. Well, these questions become

Part 3 blurs the line between human and AI motives



fundamental in the gripping crescendo of Part 3, which I will, without giving away the plot, explore below.

### 2038: PART 3

As has become the norm in the 2038 series thus far, allusions to sci-fi classics and culturally defining literature are interspersed throughout the piece, and Part 3 is no different. Perhaps my favourite is the pointing towards Dante's *Inferno* and an allusion to the ninth layer – that which is saved for traitors. While Dante tells us something regarding the human perception of betrayal as the greatest evil, the most destructive to the human heart, the authors of 2038 utilise it as a portent of what to come.

A core theme of Part 1 and 2 revolved around the notion of ultimate responsibility for a serious incident – was it human or computer error? This was innately tied into the question of how we can even make sense of such incidents when the conversation around them becomes so heated, with emotions and competing motives on the line. Part 3 sees the summation of this question and we see both sides of this coin as it winds towards a resolution.

These two sides are best symbolised by, firstly, the creepy notion that humans can't ever really escape technology any longer. A place one could argue we've reached

already with receptive Alexa systems and Facebook data profiles that can be sold to the highest bidder. And secondly, the innate human capacity for illogical, irrational behaviour based on emotion rather than an objective state of robot-mediated reality.

Creative presentations of issues such as this is why 2038 has been more than just a simple story. Yes, the authors resist the temptation of a facile 'evil robots, good humans' storyline, but they also resist the counter temptation to make technology benign and humans bad. This brings a multifaceted reality in the world of 2038 in which you find yourself left in a situation where lines are blurred between where artificial intelligence starts and human intelligence ends.

This is an original trajectory for the plot to take, especially as in our modern life we often hear of the dangers of AI, the very real threat of 'deepfakes' (computer created images and videos of people saying and doing things they didn't in reality) and the almost archetypal evil machine, but we don't consider nearly as much the notion that a machine may stay relatively neutral, but that even good people could misuse the technology. Or further, that people may not even know when technology is doing something which is good, as we cannot keep pace with its computational ability.

There was the famous story which did the rounds in the world media a couple of

years ago in which two Facebook-owned AI machines were set up to interface and began creating their own language, leading the developers to pull the plug on the machines before they could go any further. While the reality of the situation was relatively benign (at least as this author understands) it didn't stop a fanfare of hysteria and hyperbole from affecting the tabloids. Perhaps this says something more about our desire for the evil bot archetype than it does of any reality, yet 2038: Part 3 does avoid easy answers, and the authors take us back to what really brought the story alive in Part 2 – the human touch.

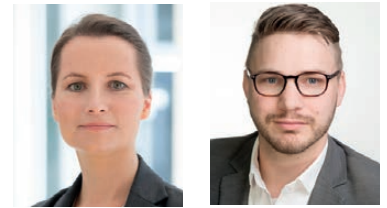
As I said in my review for Part 2 earlier this year, on the surface 2038 is a sci-fi story about AI, yet at its core it is a deeply human story, with rich characterisation that is complemented by complexities that are both internal and external for the key characters. And this is where I end this review, with the characters.

2038 sees a very dramatic conclusion and we finally get clarity on how everything transpired, but boy is it not a simple goodie vs baddie story, at least not in the traditional sense. One of the great things about 2038 is that you see human drivers influence AI far more than AI influences human drivers. This is even true as AI adapts in and of itself which raises the question. What exactly are we dealing with when we create these machines, logic or emotion?

# 2038: A SMART PORT STORY

## PART 3

Dr. Eva Savelsberg, SVP: Logistics Division, and  
Matthew Wittemeier, Marketing & Sales, Aachen, Germany



### DEEP THOUGHT

Griselle shifted her weight on the stool. The bright lights of the studio shone down on her face as she tried to find a degree of comfort around herself. As she looked up, the brightness of the lights made her dizzy. Beyond them was nothing but darkness. She thought to herself, *This is important. You can do this.*

“Dr. Grimsdottir, it helps if you don’t look up at the lights or the cameras. Just look at me,” came the firm voice of the show’s male host.

Griselle had worked with MARS to ensure

that she ended up on the cable news network’s evening panel debate. While MARS didn’t need to do much work to see Phase Four come to fruition, he had artificially raised Griselle’s online profile, something she had kept modest throughout her career. Griselle looked back at the host trying to put her discomfort of literally being in the spotlight out of her mind.

“You know,” started the host, “I’m surprised we’ve never had you on the show before. You’re basically the mother of modern AI.” “You’re being too generous, Cory,” replied

Griselle.

“Seriously, your breakthroughs in neural computing are the foundation for AI 2.0.” His eagerness to praise her reminded Griselle why she never did these interviews in the past. *They’re always so short-sighted, so eager to have a sound bite that they never do more than scratch the surface,* she thought quietly in her mind.

“Thank you. But really, it is a whole team of people who made AI 2.0 possible,” she replied.

“Actually, funny you should say that, we’ve also got Greg Peterson, one of your old

colleagues and the head of ELAIR on the panel too, he'll be joining digitally via a pod connection. We're expecting him any second now."

Griselle's heart pounded. While she'd planned for this moment, it still caught her off guard. She glanced down at her tablet and placed a hand on it. She hadn't seen or spoken to Greg since that night at the restaurant. Of course, ELAIR still hadn't made any progress, ... *but that was all going to change tonight*, she thought to herself tapping the tablet nervously.

A hologram began to flicker into focus to the left of the host. The familiar face of Greg settled in on the remaining stool. In the dark beyond the studio lights came a voice, "... and you're in on in 10, 9, 8, 7, 6, 5, 4, 3 ..." the final two numbers were inaudible.

The host sprang to life, "Good evening, ladies and gentlemen, and thank you for joining me tonight. I'm Cory Connor, and this is *Deep Thought*, where we delve into what's driving today's headlines. And, our top story today is the incident at the Port of Reykjavik where an automatic guided vehicle, what in the industry is referred to as an "AGV," collided with a man. As of now, that man's identity is still unknown, and what little the hospital can share is that he is in critical condition, clinging to life in the ICU. We're, of course, hoping that he makes a quick recovery. Now, I'm sure you've all seen the footage as it's been airing basically on repeat all day. What I can add to today's coverage is that our internal experts and a panel of external specialists have verified the authenticity of the video. It is, thus, no deep fake. So, what we want to dig into is our perhaps damning coverage of the revelations that the Port's AI 2.0 system was running adaptive code that enabled the AGV to choose to hit the man – this is coming from a confidential source, a source that I'm told comes from within the port's own team of experts. To help us unpack what's happening here are two of the foremost experts on artificial intelligence, European Parliamentarian and the Head of ELAIR, Greg Peterson and Dr. Griselle Grimsdottir, the 'Mother of AI 2.0.' "

As the sound-bite title fell on Griselle's ears, she winced internally. Externally, she worked to hide her discomfort with both the title and her apprehension of being front and center. Every fiber in her body was urging her to duck under the desk and bolt for her lab as they cut to commercial break. Instead, she simply replied, "Thanks for having me."

"Dr. Grimsdottir, is this even technically possible?" Came the first question from Cory.

"At a technical level, yes. A fundamental

difference between earlier AI and AI 2.0 is in the AI's ability to apply adaptive code to both the systems they oversee and their own systems," replied Griselle.

"And also, fundamentally no!" Greg quickly interjected in rebuttal. "AI 2.0 systems cannot do harm to a human under the AI 2.0 Ethics Act of 2029. What's being proposed here is not possible."

Cory interjected, "Well, I see there's some disagreement. Greg, ELAIR has consistently argued that a lack of AI accountability is tied to this notion that AI's cannot do harm to humans and, as such, a firm legal position whereby an AI and/or their manufacturer cannot be held accountable. Isn't that so?"

"That's accurate, Cory, the Ethics Act makes it clear that an AI cannot place a value on human life. This is concretely clear," stated Greg.

"But it is only a guideline, Cory," Griselle piped in, "a guideline that doesn't have to be followed."

"But it is followed. The Ethics Act works," Greg shot back.

"As far as you know, sure. But that still doesn't change the fact that they are guidelines, not practice. A developer could choose to ignore them, and then there are no repercussions," Griselle finished. Griselle knew this was the most basic point of the overall argument, but it was a good starting point to calm her nerves and focus her attention. *I'm only just getting warmed up, Greg*, she thought.

"Any developer caught ignoring the guidelines would be ostracized and held accountable in their relevant jurisdictions. While we, of course, need ELAIR to eventually be solved, AI isn't at a point where it is a requirement," replied Greg.

"Greg, do you really believe that?" Griselle fired back.

"Of course I do! The Act works, and it works well. Self-governance and social pressure are some of the strongest control mechanisms we have. I like to think of them as the 'carrot' approach. Sociology tells us carrots work better than the ELAIR 'stick' ever will," Greg added, feeling proud of the spur-of-the-moment wordplay he'd come up with.

"Sociology studies may favor the carrot over the stick, but history shows us countless examples of governments, corporations, and individuals all acting in self-interest, ignoring informal and relaxed rules. This brought us world wars, scandals like ENRON, the Great Recession of 2008, and the social media 'Dark Ages' of the mid-2020s. No, I'm afraid to say that history doesn't stand with you, Greg," quipped Griselle.

Greg shot a blank stare at Griselle. His proud feeling from a moment ago had

given way to a twinge of anger. Griselle had always been a better debater than him during their time together in academia ... *but she's been living under a rock since her daughter died*, he thought to himself, determined to up his game.

Cory felt the tension between the two. Their personal history was unknown to him, but the tension was clear. "Let's shift a bit. Greg, our source at RPA claims to have proof, datasets that show the AI system had chosen to incorporate into its adaptive code recommendations for the AGV system. Datasets that showed that it was less costly for it to take the life and for RPA to pay a settlement then it was to stop or avoid the collision and deal with an unforeseen, resulting consequence."

"I'd love to see such data. I have serious doubts that this could even exist. Who could come up with such nonsense?" Greg questioned back.

Griselle was quick to respond, "Greg, you really must do your research. You always were one to skimp in this area. Dr. Ivanov, an economist out of Russia, published a series of studies that showed just this about 18 months ago." Griselle tapped her tablet, and with a unique hand gesture, unlocked the documents. "I've just transmitted them to your droplet. You'd be surprised what he found actually."

Greg's anger was growing. He'd become accustomed to having the last word, to people listening to what he'd had to say. Since Griselle had disappeared from the radar, his overall relevance in the world had improved greatly. She was always countering him, and in their early academic days, this drove him to several AI breakthroughs, but nothing on the scale of hers. He'd always felt like he lived in her shadow, the shadow of a woman, no less. But since she'd been gone, it was his turn to shine. Greg knew he needed to parry. He decided light-hearted and grateful would suit. Both were in direct contrast to his emotive state, but as a well-polished politician, he'd become better, over time, at consolidating his emotions and acting rationally. "Thank you, Griselle. I must agree, you were always better at research than I was when we worked together co-developing many of the breakthroughs that brought about AI 2.0."

He thought to himself, *Surely she'd deny that, and the ensuing conversation will change the direction of the argument*. He paused for effect, giving her the time to step in, yet Griselle just stared at him. "But then," he fumbled, "... but then, the dataset doesn't negate the fact that the port's AI system couldn't consider the data in its adaptive code recommendations because of the Ethics Act."

"And why not?" Cory dug, "I was under the

impression that we just heard that this was completely voluntary for the developers to adhere to. How do we know they did?"

*We can't and don't*, was the honest response Greg should have given, but he felt the argument slipping from his control. "I've been personally assured by the developer, AIPHA, that they've followed the Ethics Act to a "T." Besides, I know the CEO personally, and, if you knew him as I did, you'd know that he and his company weren't ethically capable of such a dubious act." Greg knew that to be an all out lie. The CEO of AIPHA frequently used ethically questionable means to achieve his ends.

The night she'd confronted Greg at the restaurant with the AI manufacturer and lobbyist in attendance, she realized, this was the man. She fought her mind to stay here, in this moment, to stay sharp and not revisit that night. "Personal assurances aside, Greg, there isn't any proof. There is no way we can know they did. The only option is to take the AI offline and review her data records and the data records of the AGV in question."

"That's a stretch, Griselle. We have to think about the economic impacts of such a decision. RPA is now one of the largest transshipment hubs in the Arctic Passage. Taking their AI offline on this witch-hunt doesn't just hurt the Icelandic economy, it hurts all of the EU and the world."

Griselle had roleplayed this debate

hundreds of times with MARS in the preceding months. Together, they had devised multiple strategies for her to follow, logical arguments that would counter Greg's likely responses. Over the course of the coming hour, the two sparred back and forth, each time Griselle taking a small win that collectively added up to a pending inquiry into Athena's actions. She could feel all of the preparation, the planning, the pain and suffering she both felt and had caused coming to a head. She knew Greg and could see he was at the tipping point. *It is time to seal his fate*, she thought.

"Greg, let's be honest. I think you've shown throughout the evening that you're not as interested in ELAIR finding a resolution for AI accountability as you are in keeping the status quo, in helping big business realize it's corrupt outcomes." Greg's face was growing visibility red even through his makeup. "Let's level with each other here, Greg, it's exhausting trying to keep you telling the truth in this debate." Greg's eyes widened in what Griselle saw as panic. "We both know that the AI system in question has committed this particular behavior before. Forensic psychologists would call that a 'pattern of behavior.' "

Greg didn't think she'd drag her family into this, "Griselle, those records are sealed, so accordingly, you know that it's an offense to discuss them!"

"But a relevant fact nonetheless, don't

you think?" Griselle knew the risk of being fined for the disclosure was another small price to pay to see ELAIR move forward and for justice to finally come to her daughter's memory.

Greg realized that he'd been beaten and his resulting anger was palpable. Any friendship he and this lady in front of him once shared was gone. He didn't recognize her, and that's when it slipped from his mouth, unintended at first, but entirely with malice. He wanted to hurt Griselle back. "Well, if we're being honest, Griselle, then maybe you should tell them that your daughter killed herself because of that court ruling, and you can't possibly be unbiased when discussing it."

As quickly as the words left his mouth, he could see the blow they caused Griselle. Her body immediately shifted backward as her mind slipped into the memory of her last conversation with her daughter, of her crying into the phone while she was on the other side of the world. She couldn't make out the sound of her daughter's voice in her mind anymore. She knew the words and could remember her daughters face, but her voice was gone. Her beautiful voice was gone, and she could do nothing to bring it back. Despair filled Griselle's heart, and tears welled up in her eyes. She grasped for the tablet, for the safety and confidence she'd found in MARS. As her hand tapped at the screen, it sprang to life.

## GREG AND THE TABLET

Sitting in his pod on the other side of the world in New York, Greg knew that his words had pierced Griselle; that she felt the pain and embarrassment she'd just subjected him to for the past hour. As she struggled to recover, she fumbled with her tablet. She'd always had some small token "thing" she leaned on for personal comfort, something to fidget with while she thought, something to hold when she was troubled. It was a necklace for the longest time when they worked together, and for an annoying summer, a spinner top. He hated the sound of the thing spinning in the lab, but she'd never relied on technology before.

As Griselle's tablet sprang to life, he stopped dead in his tracks, his eyes fixated on the tablet. *It isn't possible, she couldn't have ...*, the thought struck him like the blinding flash of an unexpected lightning strike and an immediate crack of thunder. He sat motionless, blindsided; *She'd only ever toyed with the idea as a thought experiment, to challenge her thinking, to push herself to be better ... to do better.*

Greg knew he had to get off the call with the newscast, and fast. There were bigger fish to fry. "Cory, I'm experiencing a connection problem." It wasn't technically possible in the year 2038, but Greg doubled down. "I'm losing you. Cory are you there?"

Cory tried in vain to assure Greg that he

could be heard and seen in perfect quality, but in a few short seconds, he was gone.

Greg exited his pod and quickly moved to the far side of his home office where he opened a drawer and pulled out a pair of cutting-edge VR-glasses.

"Biometrical verification complete. Connected," Greg heard in his head as the device connected to his internal jawbone-receiver instantaneously.

"I need an extraction team now! We've got to move fast before she realizes what I know and is in the wind."

A non-descript voice replied, "Location?" "Reykjavik, news studio."

"We can be there in 30 minutes."

"Make it 10, and I'll double your normal fee."

## HE KNOWS

Griselle was as caught off guard by Greg's abrupt departure from the newscast as Cory was. She could hear Cory talking to the camera but was so lost in her own thoughts realizing that she'd allowed Greg to break her down that she wasn't bothered in understanding the words. She

wasn't sure how much time had passed ... a minute or two, perhaps more.

*Snap out of it Griselle!* Blinking several times, she pulled herself back into focus, back into the present moment. Cory's words started to make sense to her again.

"... some show," she heard Cory saying.

"Sorry, I didn't catch that," she offered up as the bare minimum to draw the interview

to a close with dignity.

"I said that was some show. You and Greg clearly have some history together, or don't you?"

Griselle chose to ignore Cory's question. She'd already given away too much in response to Greg's words. She wasn't sure whether she'd compromised the intended outcome of the interview. "We're done,

right?” she questioned Cory. “Of course, but if you’d ...” Cory’s words trailed off in her mind as she moved off the stool and collected her tablet. That’s when she realized her mistake. Staring back at her was the familiar triangular icon that indicated that she was connected to MARS. She looked up at Cory, his mouth was still moving, going on about her probable relationship with Greg. He certainly hadn’t noticed the tablet or, if he had, hadn’t realized the mistake she’d made, but then it wasn’t really Cory she was worried about. She collected her tablet and made her way to the exit. As she stepped out of the backstage door, Griselle felt a sudden pang of pain jab at her lower back, and then she went black.

As Griselle lost consciousness, her body’s momentum carried her forward. Stepping out at the side of the closing door, a large man dressed in dark clothing caught her ensuring that she didn’t fall and injure herself. He dragged her toward her waiting transport followed closely by a small-framed woman who’d collected her bag. As the duo made their way to the

vehicle, the woman fished a tablet out of Griselle’s bag with gloved hands and slid it into a hardened protective case. As the case closed, a small green light turned amber indicating that the digital vault was secure. Only her client could open it, and no communications in or out of the digital protective case were possible. She slid the vault into her own pack. As her hand came out, it was holding a small, plastic, prescription drug container and a syringe in exchange.

When they arrived at the transport, the man dumped Griselle into the back seat with some effort. He clicked her seatbelt on and exited the car. The women ducked her head into the car and injected Griselle with the syringe before opening the container and spilling half its contents into the vehicle. She then placed the half-emptied container into Griselle’s hand. She threw Griselle’s handbag on the car seat next to her, cracked the window slightly, and shut the door. Speaking through the crack in the window, she instructed the car, “Home, please.” She waited for the response. “Confirmed. ETA, 30 minutes.”

The women tapped her VR glasses, “It’s done. We have the tablet.”

Greg’s voice jumped, clearly he’d been anxiously awaiting the news, “... and the woman?”

“She’s not going to be waking up, the police will think it is an overdose of antidepressants,” the women replied.

“I’ll be touching down in four hours. Meet me at the airport, and bring the tablet.” Greg was already in route to the airport in New York. If the tablet had access to whom he thought it did, he had to handle it personally. “Don’t access the tablet, and don’t let anyone else access the tablet.”

“Sir, as per our normal operational procedure, it’s in a digital vault with biometric security. Only you will be able to open it.”

“Good,” Greg replied, and with that, the woman was left alone in the dark. She turned to the man. “Twice your normal fee has been transferred. Your contract is concluded,” she commented in a stern, sterile tone before turning and walking away in the opposite direction into the darkness of the night.



### LATE NIGHT MEET

Jake looked at his watch again. He knew it was the tenth time in the past two minutes, but the closer it got to midnight, the more nervous he was. He’d gone out on a limb making contact directly with Douglas. He knew that he was wanted by Interpol for questioning in relation to a number of anti-tech attacks, but in his mind, he didn’t have

another choice. Nervously, he glanced again at his watch. It was three minutes to midnight. He still had time to leave. He heard footsteps in the distance and a muffled discussion he couldn’t make out.

“He brought someone else with him,” Jake whispered to himself in disbelief. Turning in the opposite direction, he began walking towards the exit of the cemetery. “What

was I thinking inviting a meeting with an Interpol agent?!” Jake glanced over his shoulder to check that he wasn’t being followed. The sound of the men in the distance was still audible. Jake strained his vision to try and see through the dark night and make out any details of the two men in the distance, his body propelling him towards the exit on autopilot,

oblivious of the impending collision. Jake's lack of attention to his direction of travel combined with his brisk pace came to an abrupt halt when his left shoulder collided with something unexpectedly.

Jake reeled as the sharp pain coursed through his shoulder into his neck. He spun around to see what he'd collided with, forgetting for a moment the two men he'd been struggling to make out a second before. Before him was a man who, just as quickly, had stopped to face the impact. Realizing that he'd caused the incident by not watching where'd he been going and wanting to defuse the situation and keep moving, Jake quickly uttered a quick apology, hardly sincere, but just enough he'd hoped to distract the man and be on his way.

"Jake?" replied the man.

Jake stared at him in disbelief, *How did he know my name?* he wondered. Then he replied, "Sorry, do I know you?"

"No, but you asked me to come. I'm Douglas."

Jake continued to eye the stranger. He'd never meet Douglas, and he'd not been able to find a picture of him online that afternoon. Arlo had described him once, but he'd been so quick to dismiss Arlo for working with Douglas at all that he hadn't listened, much less remembered any of the details.

"How do I know you're Douglas and this isn't an Interpol trap?" Jake's mind shifted back to the two other men as he strained to hear over the sound of his heart pounding to try to locate the two men he'd lost track of.

"You don't. But then again, you asked me to come, so really what option do you have?" Douglas replied. Jack was clearly distracted or perhaps even paranoid. If he was going to get him to talk, Douglas knew he'd need to calm him down. "You sent me a message this afternoon."

Jake didn't hear that last comment from Douglas. He'd located the two men who were fast approaching. Jack instinctively turned his back to them pointing his body towards the direction of the edge of the cemetery and a block of buildings he assumed he could lose them in. His body stiffened as he prepared to run as soon as they made a move to grab him. He knew that this was the ideal time to make his move. Their minds would be preoccupied at that moment with their plan to grab him. "You mentioned a mutual acquaintance ... Arlo." Just as Douglas uttered Arlo's name, the two men walked past them carrying on a loud conversation in Icelandic. It was clear to Douglas that the men were slightly intoxicated. It was also clear that Jake thought they were there to grab him.

Jake's apprehension subsided at a seemingly proportional rate to the increase in distance between them and the two strangers. "Arlo ... that's right. Arlo trusted you. He and I rarely saw eye-to-eye, but I didn't do what they are saying I did." Jake's demeanor was relaxing a bit, though he was still visibly on edge.

Douglas's years of experience had taught him not to respond immediately with his line of questioning. Jake clearly had

something he needed to get off his chest, and Jake would likely overshare and reveal his hand in his desperation to be heard. Douglas kept a straight face, hiding his confusion.

"I did everything he asked me to, but I didn't know that Arlo was going to be hit. The vehicles always stopped," Jake wailed, his voice and pace of speaking grew louder and faster. "Every time before, they'd stopped. Every time!"

As Douglas listened to Jake, he assessed his body language, his facial expressions. Unbeknownst to Jake, Elena was watching him too. She assessed his bio-signature for indicators that he was lying or telling the truth. She passed this information on to Douglas.

Douglas maintained eye contact with Jake and kept a blank expression on his face. Douglas didn't want to reveal his own hand – that he and Elena were working to assess whether he could be trusted.

"His bio-signature is all over the place, but in my assessment there's a 78% probability that he's telling the truth," Elena chimed in. Jake heard nothing. Elena communicated to Douglas through an implanted jawbone-conduction receiver. No one other than Douglas ever heard what Elena communicated directly to him unless he chose for it to be broadcast to an external speaker.

With her advice confirming his own intuition, Douglas spoke, "Okay. Just take it from the beginning. Who's 'he'?"

"I only know him as ... 'MARS.'"

## CTAC INTERVIEW

Emma entered the data center and made her way to Athena.

Athena welcomed her when she arrived, "Hello, Emma."

"Hello, Athena."

"May I ask you a question?" Athena enquired.

"Of course."

"Why did you permit Douglas to interrogate me when it was expressly forbidden by the board?"

"Sometimes doing the right thing means doing the wrong thing," replied Emma. Emma could see that the words presented an illogical loop, something that Athena's programming didn't prepare her for.

"I'm sorry, Emma, but I think you'll need to clarify your statement."

"Athena, what's wrong to one person, let's say the board, isn't necessarily wrong to someone else, let's say me. If allowing Douglas to interrogate you helps to prove that you had nothing to do with the incident, and, in turn, that exonerates

you and subsequently RPA – then, in fact, the greater good outweighs the potential negative consequences I will personally face for my actions." Emma clarified.

"It is a selfless act, Emma. Why would you put yourself, your needs above those of mine? I am but a machine."

"Not if it works out, Athena, and to me, you're so much more. Let's put that behind us for now. I've been working with marketing, and we agree that we need to get in front of this media storm with some positive media."

"I understand the logic, but as I have done nothing wrong, I do not see the point."

"Humans aren't so clean-cut. We are easily swayed by emotion and not so rational. I've organized for the editor-in-chief of Port Technology to interview you at their Container Terminal AI Conference. You'll be joining them remotely via video feed. It will be tomorrow just after lunch, UK time."

"Do you know the line of questioning that he will take?"

"Not specifically, no, but please be open and honest. After all, you've got nothing to

hide. Let's show them that." Emma turned and started for the door.

"Thank you, Emma," Athena called after her.

"For what, Athena?"

"For believing in me," replied Athena.

Emma paused for a moment. She wondered whether having thanks was a logical outcome or one derived more from an emotive state. "Athena. I think you're onto something there."

"What do you mean Emma?"

"When you speak with the editor, try and be a bit more human in your interactions, not so strictly logical."

"I'm not sure what you mean, Emma."

"You've got access to the Internet. Do some research; see how people respond to people and give it a go," Emma concluded as she turned back in the direction of the door and left the data center.

Athena sat quietly and considered the final statement from Emma before turning her research processes towards evaluating human interactions.



## LOST IN TRANSIT

Griselle's transport had been steadily making its way out of Reykjavik when it received an automated message: "Your passenger's biorhythm has fallen below acceptable norms. Please divert to the Landspítali University Hospital immediately." The transport complied with the notice without hesitation, changing direction abruptly.

Thirty seconds later, a second message arrived: "Your passenger's biorhythm has fallen to critical condition. Authorization to engage you as an emergency medical transport has been requested."

A moment later, the transport received a new message from the Icelandic Central Emergency Services: "Your normal transport parameters are being commandeered under the Emergency Vehicle Transport Act. Control of your transport is being assumed by the Icelandic Central Emergency Services in three ... two ... one." With that, the transport's AI relinquished control of the vehicle. The LED headlamps of the vehicle began flashing blue, and the audio system that would normally project a "car sound" began emitting the all-to-familiar "Wee-Whaa! Wee-Whaa!" of European ambulances. The transport increased its

speed as light after light turned green and the few remaining transports on the road seamlessly cleared out of its way.

As the vehicle made its way to the hospital, Griselle unconsciously shifted in the back seat. Along with the premium digital insurances she'd procured for her droplet some months ago that allowed her to remain Invisible digitally, she'd also taken the precaution of securing two of the latest life insurance policies.

The first was an internal medical monitor linked to a specialist "AI doctor." This unit had detected the irregular biorhythms and alerted the transport some minutes ago and was now coordinating with the emergency services and hospital in real-time to deliver its patient into human care. The hospital was already awaiting Griselle's arrival and had access to all the real-time analysis of her current condition including her biorhythmic stats and, by the time she arrived, a complete toxicology, bacterial, and viral infection report to assist with diagnosis. The second was a death box service. Upon the event of Griselle's death as reported by the combination of the internal medical monitor and either a licensed doctor or the AI doctor who was triggered by the monitor, a digital vault would be released according

to Griselle's precisely coded instructions.

As the transport rounded the loop into the emergency drop off, a team of doctors was waiting.

"Whoever this is, they've got to be important," one nurse commented. "This is the absolute premium-end of the service." "Focus," ordered a doctor.

"Blood work is in. It looks like an overdose of antidepressants. Her medical history doesn't show any risk indicators or a prescription," confirmed a nurse aloud.

The doctor opened the door and glanced into the transport as it came to a stop. The pills on the floor told a different story. She'd worked in LA doing a residence when the life-monitoring services began in the late 2020s. She'd seen countless movie-star types chasing another high turn up to the hospital in just this manner. The rush from drugs alone wasn't enough, the risk of dying, of toying with technology and their life, was their new high. *An ugly distortion of a service that could have saved so many lives*, she thought.

"Let's get her on the gurney," the doctor ordered, and with that, two nurses assisted her in removing Griselle from the car to place her onto the hospital bed. "Prep the ICU! This lady is in for the fight of her life."

## IT'S HAPPENED BEFORE

The late-night air was unsurprisingly brisk as Douglas made his way back towards his transport. The pesky RPA transport had been with him all day, and despite Douglas's preference to not be tethered to technology, he was grateful he didn't have to book a transport to get around. *One less thing to worry about*, he thought contentedly to himself.

Against every Interpol protocol and procedure, and despite the fact that if Jack was who he said he was, he was wanted for questioning for a number of extremist, anti-tech attacks, Douglas opted to let him go. He'd given him the standard, "Don't leave town and keep your phone on" spiel. Douglas trusted his gut, he knew Jack was more valuable free than locked in some holding cell awaiting days of questioning. He also knew that if he'd had that meeting on the record, he'd have caught major flack for letting him go.

But, Douglas also didn't entirely trust Jack either. "Elena, were you able to hack the phone and place a tracking algorithm?"

"The phone is so old, it was a walk in the park, Douglas."

"Let me know if he does anything erratic."

"Sure thing, Douglas. You know we could access so much more than his GPS location if I were able to utilize HQ's services."

"Sorry, Elena, but you're staying offline

from central for now," Douglas reiterated as he ducked into the transport.

"Where can I take you, sir?" Enquired the car.

"Just drive, I need to think." Douglas sat thinking about the revelation of the mystery man. MARS ... who are you? Jack had shown Douglas the message, the instructions on what to do, and what the intended effect would be. The message was from an unknown sender. It could have come from anyone, anywhere, he mused. While it's a clue, it's a dead-end for now. Douglas knew that if this MARS guy had hacked Jack's phone to retrieve the video and left the message, he was either sloppy or knew it would lead nowhere. Perhaps he even thought it would make Jack look crazy. Douglas had to admit, the idea of blindly following some unknown recluse from the Dark Web did sound bloody crazy. But, it was a lead, and Douglas knew to chase down every lead no matter how strange they sounded.

"Douglas, I have something for you," interrupted Elena.

"Is Jack running?" Douglas questioned. *Perhaps I should have taken him in*, he thought to himself.

"You asked me earlier today to look for instances of driverless-vehicle failures that seemed odd."

"Yes, and ...?"

"Well, of course, all incidents involving property damage and injury or death to humans are reported, and the Autonomous Vehicles Unit handles the investigation. I didn't find anything there. These cases are investigated thoroughly."

"Tell me something I don't know, Elena."

"I broadened my search to include injury to animals, a classification of incidents that is not mandatory to report to the autonomous vehicles unit, and I got one hit in a local paper in Switzerland. About six months ago, a cow was hit by a transport that was returning from a rural drop-off. The cow was fine in the end, but the farmer made enough of a fuss about it that the local newspaper ran a short piece on it."

"What happened to the transport?" Douglas enquired.

"The article is mostly about the cow; no mention of the transport other than it was made by Emagine Automotive."

"Elena, put the article on my desk. I want to read it myself. Also, comms approved for you to get the CEO of Emagine Automotive on standby for questioning."

"Done, Douglas."

Douglas decided it was time to make a call, "Transport?"

"Yes, sir."

"Take me back to the Blue Lagoon."

**EMAGINE AUTOMOTIVE**

After checking in with reception, Douglas made his way directly up to the pod-level of the Blue Lagoon entering a pod at random. He knew that few would be looking for him at the retreat, and he'd need privacy from both Interpol and RPA to conduct his investigation.

"Elena, connect me with Emagine Automotive please," requested Douglas.

"Yes, Douglas. Before I connect you, you should know that the CEO, Ms. Bright, insisted that her legal counsel attend the call."

*You only need legal on if you think you've done something,* Douglas thought to himself, We're headed in the right direction. "Noted, Elena, put me through."

"Connecting ..." The pod snapped to life, and within a few short moments, the fully immersive experience took hold. Douglas had digitally entered and was standing in the middle of a board room at Emagine Automotive. On the opposite side of the room, sitting, was the CEO and her legal counsel.

"Good afternoon, ladies," Douglas started. Emagine was based out of California in the US. While it was very late at night for Douglas, it was early afternoon for Ms. Bright.

"Let's cut to the chase, shall we," responded Ms. Bright, her legal counsel remaining silent, but listening intently. "Your AI assistant indicated the interview was regarding an incident that involved one of our autonomous vehicles about six months ago." The legal counsel slid a paper across to the CEO. "I see here it happened in Switzerland."

The defensive nature of the CEO reassured Douglas that he was barking up the right tree. He paused to see what else she might add. The silence was awkward for all involved but achieved what Douglas had set out to achieve, the CEO buckled first.

"No property or human was injured, so really, I don't understand the need for this interview. It wasn't mandatory that we report it, so we didn't," she noted in a somewhat annoyed tone.

Douglas decided to interject the purpose of his call, "Actually, Ms. Bright, I'm not with Interpol's Autonomous Incident Unit. I wanted to understand why the vehicle malfunctioned as I believe it might have similarities to a case I'm handling at present."

The CEO's demeanor softened from defensive to approachable. She still chose her words wisely, however, "Oh. Why would you assume the vehicle malfunctioned?"

"Well, it is certainly very odd for a transport to hit a cow, isn't it?"

"Indeed, but perhaps the cow walked out unexpectedly in front of the transport."

"We both know that while that is possible, it is exceedingly unlikely. Decades of doing my job have taught me that the exceedingly unlikely outcome is ... well, unlikely. I'm not pursuing criminal charges. We're not recording this transmission; it's off the record. I just need to understand how your transport hit something."

The CEO leaned into her counsel and whispered something into her ear being sure to block her mouth. AI algorithms could accurately read lips – that knowledge was standard training for any CEO these days. The counsel spoke up, "For our records, the investigator from Interpol, sorry I missed your name ..."

"Douglas Meyer. But please, just Douglas," he responded.

"... Douglas has advised that this conversation is off the official Interpol record. Under these conditions, we will offer up the following information in verbal form only."

Ms. Bright continued, "Of course the transport was inspected by our senior technical team after the incident, as is company policy. The team didn't find any signs of hacking or equipment malfunction. You can understand that this didn't make any sense to the team, so the vehicle was shipped back to our main facility here in California where we tore it apart from top to bottom. Every sensor was inspected. Every entry in its hardline log – and we found nothing."

Douglas listened intently, the story sounded familiar to him.

"At this point, the internal investigation was handed over to our President of Design and Development. Ms. Bright changed her focus to her AI assistant, Mark, can you get him on the call? He'll be able to better advise what they've found, or rather, haven't found," Ms. Bright noted.

"Thank you, Ms. Bright," Douglas returned. "I'm keen to understand the incident fully." While they waited for the additional attendee to join the call, Ms. Bright interjected again, "You have to understand Douglas, an incident involving a transport hitting a cow, that's one thing. That blows over in a news cycle. If word gets out that we can't identify why it happened and ensure it doesn't happen again ..." the legal counsel leaned into Ms. Bright. Presumably advising her to choose her words very carefully. "Well, let's just say, the competitive landscape is unforgiving."

"Hello?" came a deep male voice. "Jason here. Ms. Bright, you wanted me on a call?" Only Jason's audio was coming through.

"That's correct, Jason. You're on a call with Interpol. Legal is here too," advised Ms. Bright.

"Sorry for the audio-only. I'm skiing in Aspen, I'm on top of a mountain."

"It isn't a problem, Jason," interrupted Douglas, "The audio is fine. This conversation is off the record. Ms. Bright advised you handled the investigation into the transport that struck a cow in Switzerland."

"Oh, 'Cow-gate.' " Clearly, Jason was a laid-back guy. "It really is bizarre. We've dug through every line of code in the transport. We've run every diagnostic algorithm we have. Heck, so did everyone in the industry that I trusted without sharing to much information with."

"What doesn't stack up, Jason?" Questioned Douglas.

"There is nothing there that went wrong. Everything was functioning correctly, but the transport didn't see the cow. It's as simple as that."

Ms. Bright interjected, "What Jason means is that we're still investigating why the transport's sensors are testing normal, but clearly have failed."

"No, Julia," Jason responded directly to the CEO by her first name. "We've been through this a dozen times. The sensor was working perfectly. It just didn't 'see' the cow. There's nothing in the software that malfunctioned; there's nothing in the hardware that malfunctioned."

"Well, clearly the transport was hacked, then," Douglas added.

"No. That transport was locked down. The logs show it. We've been through them every way you can imagine ... 'Emagine' ..." Jason chuckled at the wordplay. "It wasn't hacked."

"Then, what happened?" Douglas asked directly.

Ms. Bright interjected again, "Douglas, we're talking about the fate of the company, here."

"I'm talking about a man's life," Douglas shot back. It was at this point that Ms. Bright realized that Douglas was the investigator on the AI incident in Iceland.

"Jason, tell him," she interjected.

"It's just a theory, Julia," Jason responded.

"Tell him," she responded firmly.

"When we reached out to the industry for testing algorithms, I heard a lot of chatter that we weren't the only one in this predicament. Unofficially, there are at least another three cases I know of." Douglas was used to interviewing people and concealing his thoughts, but that caught him off-guard, and he shifted slightly. Had Jason had a video connection, he would have no doubt noticed that the insight caught Douglas by surprise. "Our leading theory is that someone has figured out how to perfect a 'LIDAR-jammer.' "

"A what?" Douglas enquired again. When stuff got technical, he always doubled down to be sure he understood what was being said.

“A LIDAR-jammer. The main vision system of any transport is a LIDAR system. It is technically possible, however also immensely improbable.”

“How would it work, Jason?” Douglas questioned further.

Jason continued, “A LIDAR's receiver is only looking at a very specific spot for a very specific microsecond and in a specific frequency band. All other light is ignored. It is possible you could overwhelm the LIDAR by illuminating a region with a light much brighter than sunlight in the specific band it is looking for, or by aiming that light at the LIDAR to overwhelm the return pulse. We're talking about light that's beyond the human eye's ability to see, no one would notice it, only the LIDAR.”

“You mean a physical light source would be required?” Douglas questioned.

It could be the result of an atmospheric interruption. We checked the Swiss location, and nothing would have caused it. There were no atmospheric conditions that could have caused it, plus these would have probably registered in the log as an anomaly. As far as I know, the other three incidents also ruled this out too.” Douglas had already checked for this.

“Otherwise, yes, to do it would require a carefully timed physical light aimed at

the LIDAR,” Jason added. “In theory, it is actually quite a simple jamming method. It simply would make the LIDAR believe nothing is present in a region.”

“You said it was improbable?” Douglas questioned.

“The combination of knowing where the LIDAR is looking, when, and in which frequency band, is virtually impossible. For obvious security reasons, the frequency is a closely guarded secret.” Jason responded.

“But technically possible, nonetheless,” Douglas paraphrased Jason's earlier words.

“Yes. However unlikely it is, it is the only thing some of the brightest minds in the autonomous transport industry have come up with that explains this string of incidents.” Jason added.

“Do you have what you need then?” questioned Ms. Bright.

“Mostly,” Douglas answered.

“What else can we help you with?” Ms. Bright questioned.

“I need the details of the other three incidents,” Douglas advised, “You can leave them with my assistant.” Douglas knew that they would argue the counterpoint, and he also knew that they knew all he would have to do is leak just a fraction of what he'd heard to the media for a debacle to descend on them.

“Of course,” replied Ms. Bright with a look of frustration.

With that, Douglas disconnected from the call and stepped out of the pod. The darkness of the late-night didn't hit him as he was used to that when exiting a pod. *Hmm ... if you use them at night, it's much better coming out.* Douglas walked to the bar in the center of the room and picked up a sandwich and a glass of water before walking over to the windows. He'd realized he hadn't eaten at all that day.

As he slowly ate the sandwich, he considered a notion that hadn't crossed his mind before the call. *A physical device would mean that something would have had to be physically present at the terminal ...*

“Elena, have you got the details of the other three incidents?”

“I do, Douglas.”

“Comms authorized for you to scour them for any anomalies. Elena, you're looking for a needle.” Elena knew this meant Douglas wanted her to look for the smallest details that were out of place.

Douglas started for the elevator again.

“Elena, I'm going to get a little rest. Wake me if you find anything.” Douglas entered the lift and selected the floor of his room. *At least I'll get to try out the bed.*



## THE AIRPORT

As the small-framed woman waited in the airport bar, she wondered why the tablet was worth so much to her client. Her normal fee was US\$1,000,000, and he doubled it to US\$2,000,000 without hesitation. *US\$1,000,000 was already a lot of money for her services,* she thought, *US\$2,000,000 is peculiar.*

She let the thought leave her mind. Decades of work in her chosen career had taught her not to ask questions she didn't actually need the answers to. *My job is to recover the*

*asset in question and dispose of the subject as required. Keep it simple. Take the money,* she reminded herself. She took a sip from her green tea. As she set the cup back down on the saucer, she glanced at her watch. The client was due to land any minute. She glanced up at the bartender and signaled she wanted to pay. As he approached with the bill, she extended her arm. She tapped her watch on his before glancing down at it. A message appeared confirming the transaction was successful. She reached into her pack and put on a

special pair of gloves before collecting the cup to take the last sip of tea. In a well-rehearsed move, she wiped the surface of the mug free of fingerprints and any residual fluids. She was well versed in removing any evidence of herself from the places she visited while working. The trick was to blend in, but also, not to exist. To be anonymous. The bartender hadn't noticed the action, and just as quickly as she'd been at the bar, she was gone. Nothing more than a transient passer-through that he'd struggle to remember any clear details of.

She made her way to the gate and arrived as the first passengers were disembarking. She wasn't surprised to find her client among the first off the plane. He made his way directly to her. While this annoyed her, she had anticipated it and had already begun a rehearsed welcome act. "Oh, Uncle, it's been too long!"

Greg elected to play along as they both turned and headed for the exit.

"Did you check any bags, or shall we head straight out?" she inquired.

"Let's get moving. Did you bring the item?"

Greg quickly cut back to business.

"Of course, it's in the car." It wasn't, it was in her bag. She wasn't letting it out of her direct care until she was paid.

"Let's move, then," Greg replied as he picked up the pace. He remembered the act at this point, "I'm just so happy to see you, and can't wait to see your mother."

As they exited the airport, the lady led Greg towards the airport parkhouse. In the early 2000s parking garages were huge at airports. Today, with the prevalence of transports, they were quite small by comparison.

"I'm parked in the back corner," she said as she directed Greg towards the far side of the parkhouse. As she approached the black sedan, it unlocked automatically detecting her presence. She got in on the left side of the car behind a traditional driving wheel. Greg followed suit but got in the back out of habit. It took him a few seconds to realize that she was actually driving.

"You're driving?" he inquired.

"I always drive when I'm working. I require complete control of myself and the tools I use to complete my work," she replied as she pulled the biometric vault from her pack which she'd placed on the passenger seat. She handed it to Greg over her right shoulder, waiting for him to take it. When he did, she adjusted her rear-view mirror so she could keep an eye on him and then selected first gear and pulled out of the parking space. Greg stared at the vault. He was familiar with how they worked from his time traveling as a diplomat. He often stored sensitive data in route to his final destination ensuring it couldn't be opened until he'd arrived safely. Next to the now-amber light, in the middle

of the case on both sides were two small black patches that he had to simultaneously hold for fingerprint recognition. This was the first step to opening the vault. He did so. The amber light blinked green twice. He felt a small prick of his thumb as the device took a micro-blood sample to verify his DNA signature. The first time he'd opened one, he'd dropped it from the shock of the prick. He had to start over as the vault couldn't guarantee that he was still in possession of the device. He knew he had to keep it in hand. A few moments passed, and the light blinked green twice more. Step two was complete. Step three would have been a GPS-location confirmation, but as per his instructions, the vault was not location-secured. The light turned blue indicating that Greg had to complete the final step, an audio confirmation.

The lady heard her client utter a few words in the backseat. She glanced up to see he was completely absorbed with the vault and wasn't speaking to her. She noticed the light on the vault pulsing in blue and knew this meant it was in the final phase of confirming her client's identity. She turned her attention back to driving. *You don't need to know why the tablet is important, just get paid and disappear*, she reminded herself while forcing her attention back onto the road.

The light on the vault turned solid green, and Greg could feel the locking mechanism release within his grip. Out of instinct, he opened it as he withdrew his fingers from the scanners. He slowly raised the opposite end of the vault assisting the tablet to slowly slide from the protective case. When it was two-thirds of the way out of the vault, Greg cautiously tapped the screen. He was expecting it to spring to life like tablets did, but instead a simple, triangular icon appeared on the screen followed promptly by a deep male voice.

"Griselle, what happened? I couldn't reach you," questioned MARS.

Greg quickly slid the tablet back into the vault and closed it. He mumbled aloud, "She's done it. She's actually done it." Staring blankly at the vault, Greg realized he was in untrusted company and needed to be extremely careful moving forward. He

needed to ditch his escort and move to a secure location.

Greg announced, "Please, can you take me to Lambhagavegur 36?"

"You've successfully accessed the asset. I require payment," responded the lady.

"Of course," Greg responded. He tapped a few times on his wristband. A few seconds later, the lady's watch vibrated.

She took her right hand from the wheel and extended her arm allowing her watch to appear from behind the sleeve of her jacket. A message confirmed the delivery of US\$2,000,000 into her account. "I know the way, we should be there in about 15 minutes," she responded.

Greg tapped his wristband a couple more times and then waited a few moments. "Yes, I'm arriving in 15 minutes. I need immediate access to the AI-exclusion capsule ... I'll be going in alone ... of course I know that doesn't make sense, stop asking questions, just give me what I need ... the newscast doesn't matter now ... if you knew what I knew, then you'd know we have a way out of this shitstorm!" Another moment passed, clearly the man on the other end of the phone knew Greg and was also unhappy with his current performance. Greg knew that the best way to handle CEOs of big tech companies was to be direct, to show no fear and no uncertainty. Being berated by Griselle on the news program earlier that evening had embarrassed him, but clearly, it also sowed a seed of doubt in those around him. "David, stop arguing with me! Griselle won't be a problem anymore. Just be ready when I get there," Greg ordered before tapping his watch to disconnect the call.

Greg looked directly into the mirror at the dark face of the women driving. He didn't know her or if she could be trusted. Her eyes were fixed firmly on the road, on the task of driving. *She's a professional. She might be listening, but she knows better than to open her mouth*, he thought to himself before breaking the gaze and allowing himself to think. He'd been contemplating how best to approach MARS the entire flight over. Now that he'd confirmed it was him, his heart began to race with both excitement and trepidation.

## BIG BUSINESS

David stood inside the doors to the headquarters of AIPHA. It was located just out of Reykjavik and afforded him a view of the Icelandic countryside, albeit, at this late hour, he couldn't see much. As he waited for Greg to arrive, he thought about the journey of his company ... his life. He'd founded AIPHA as a spinoff from the Icelandic Institute for Intelligent Machines in the mid-2020s. Being so close to the work that Griselle had done with Reykjavik University's

School of Computer Science had positioned the company well. The relationship he'd forged with Greg had given him early access to the latest breakthroughs in neural computing and advanced AI, positioning AIPHA as the leader in AI 2.0 technologies well before it was popular ... or profitable. He'd sunk billions of dollars into R&D, and he was just starting to reap the benefits.

David had invested his life into AIPHA. He kept it propped up for the better part of the past decade from his family inheritance,

investing everything penny he had into it. He believed so strongly in the vision of AIPHA that he'd paid the ultimate price. After the seventh year in operation, his wife divorced him and took custody of their children moving to Sweden to live with her family. AIPHA was all he had left, and his blind devotion to the company fueled him, kept him focused, and most of all, ensured he'd have a legacy to pass on to his children. *When they come of age and can see and understand what I've achieved for myself,*

for society ... for them..., his mind drifted to the thoughts of his son and daughter playing as children in the park. His livelihood and legacy, his way back to his children were all intricately tied to ALPHA's success, and he wouldn't let anything get in the way of that success.

The headlamps of the car approaching the building drew his attention back to the moment. The black car had deeply tinted windows, David could make out the shape of a driver. He found it odd that Greg hadn't taken a transport from the airport. Greg emerged from the back of the vehicle a few seconds later.

"This concludes our business," he confirmed to the driver and the vehicle promptly departed. "David, old friend. I assure you things are under control," stated Greg.

"Why on Earth do you need to go into the AI-exclusion capsule alone?" David enquired again.

The two men entered the building and walked directly to the elevator.

"Really, David, the less you know, the better." David considered what Greg was saying ... what he had already said ... *Griselle won't be a problem anymore*. What did it mean, and did he want an answer? As David approached the elevator, it automatically registered his presence and pre-loaded his typical journey. As the CEO, his profile took precedence for routing. The doors opened, and the two men entered the lift.

"Hello, David. I've preselected sublevel 9," advised the elevator system aloud.

"That's correct," David responded.

"Sir, I'm not detecting the appropriate security clearance for your guest," replied the system.

"Override approval, David Benedittson," confirmed David calmly. A brief moment

passed in silence.

"Confirmed." The lift began to sink into the building's hidden network of subfloors. ALPHA, to any outsider, was a seemingly small company. But the two-story building visible to the public was only the tip of a much larger iceberg. David utilized the natural thermal efficiency of the ground to assist in keeping the vast data and AI center that existed beneath the building cool. As one descended deeper into the building's depths, the level of security required increased significantly.

The coincidence of taking Greg to the 9th subfloor of ALPHA didn't escape David. The second round of Dante's 9th Circle of Hell was reserved for the political traitors. David knew that Greg's presence in Iceland wasn't well documented and turning up in a car with a driver was additionally suspect. There would be little-to-no digital footprint of his journey here either. The next few hours had the ability to make or break his company. He also knew that the third round was reserved for hosts that betrayed their guests, so, it was also fitting he was there too.

"Athena being publicly accused for this incident is bad, Greg," David started.

"Could Athena have actually done what they say?"

"It doesn't matter if she's actually responsible or not. What matters is that it is so public. *Griselle's performance* has pushed the needle on ELAIR, there will be a public and political push to see it resolve AI responsibility for sure now. I don't even think that you'll be able to prevent it."

Greg's politician hat slipped on. "It isn't as bad as it looks. The media storm will blow over in a couple of news cycles. You'd be amazed at what I've ..."

David cut him off, "I don't think it will,

Greg. I don't care about your spin! If she's shut down, it will be a major setback for my company ... for me!" David shouted, frustrated Greg was throwing bullshit at him. Athena was one of the early successes of ALPHA, and he was close to securing several lucrative deals with two major terminal operators to roll out sister units.

David was red hot with anger, almost spitting with rage at Greg behind his furrowed brow, "I've got a lot riding on the outcome of this debacle. This is why I pay you! To keep these things from happening. To keep AI and AI responsibility off of the political radar and out of shitstorms like this! And right now, you're really screwing it up!" When he was a younger man, his temper often got the better of him, but he'd learned to control it, or so he thought, having rarely lost control in his later years.

Greg stopped talking. He was so close to sharing what he'd found with David. He'd shared so much with him over the years. He'd been paid well, of course, but ... Greg considered his position before continuing. *If he was right, it could make him the most powerful man in the world. The keys to the kingdom*, he mused to himself. What he'd found went beyond his relationship with David. It was his way to the top of the political spectrum. *No one could stand in my way, no one!* Greg took David's fury calmly contemplating his newfound power so electing not to respond. Greg's silenced enraged David even further, even though the two had nothing left to speak about.

The elevator came to a stop, and the doors slid open. David exited the lift first and led the way to the AI-exclusion capsule. Greg kept quiet, tightly gripping the vault under his arm as he thought to himself, *The only person who could have stopped me is dead.*

## MEETING MARS

Inside the AI-exclusion capsule, Greg twisted the circular handle to seal the capsule. He wanted to be alone with MARS, and he needed him to be cut off from the world. What he had planned would be easier if he was isolated. Once Greg was convinced the door was secure, he made his way to the table and set the vault down before taking a seat himself. He carefully opened the vault using the same procedure as before. When the case opened, he slowly slid the tablet out, flipping the kickstand out and placing it onto the table. Moving to activate the screen, he paused. *This is it*, he thought to himself before softly touching the screen to activate it.

It sprang to life. The red triangular shape he'd noticed on the newscast and again in the car appeared instantly followed quickly by a deep voice. "Griselle, what's happened? I've been unable to reach you

or my network for several hours."

Greg listened, allowing emptiness to fill the sealed capsule. He wasn't sure of what he was handling, but if it was anything like what *Griselle* had always mused about, he was holding the most advanced AI system known to man. What's more, it was not bound by the constraints it should have been that were outlined in the AI 2.0 Ethics Act. No, *Griselle* had always contemplated that a sufficiently intelligent programmer could develop an advanced AI and that the AI 2.0 Ethics Act, while adhered to by public corporations and mainstream programmers, wouldn't be required. Greg could hear her words in his head, *If you know how to produce an AI's central processing unit on your own, you'd be free of the Ethics Act*. At the time, Greg argued that nobody had the skills and equipment to produce such a chip alone. Furthermore, why would the chip producers risk the

obscene profits they generated by adhering to the Ethics Act? Still, *Griselle* created MARS, always sketching the same triangular shape in her notebooks when she would use the thought of him to challenge her own work and moral positions. She's done it!

The silence within the room continued. Greg was trying to assess how much of MARS existed on the tablet before him. He considered it highly unlikely that *Griselle* had limited such a creation to the computing resources of a measly tablet. Powerful as they were, they were measly compared to a mainframe. *She must have a central mainframe at her home*, he thought to himself, never contemplating that *Griselle* would allow him to access cloud resources. After several minutes of silence, it was clear to Greg that MARS wasn't going to blink, so he decided to speak.

"Hello, MARS." Greg started. Silence

followed. “You are MARS, aren’t you?” Nothing. Greg paused again and reconsidered his approach. “Griselle is dead.”

Unbeknownst to Greg, MARS had scanned the room and knew who he was talking to. He knew Griselle’s position towards the man named Greg who he now found himself with. He knew something was wrong if he was unexpectedly in his possession. He wasn’t able to access his extended computing network, which led him to the conclusion that he was in an AI-exclusion capsule. But where? He knew he had to get Greg to talk and he calculated that the best way to do that was to remain silent. Like all humans, Greg’s emotion would drive him to make a mistake, a mistake MARS could leverage. He doubted seriously that Griselle was dead. He knew protocols were in place that would automatically trigger certain phases, failsafes in their plan, and those hadn’t been initiated.

Greg continued, “Surely, you have some protocol to run in the event that Griselle has died?” *She was always one to layer plans on plans. She always obsessed over every detail*, he thought to himself. *That’s why she always thought she was better than me. Well, how did that work out?* MARS not responding was beginning to annoy Greg. His rush to get a response from MARS might have triggered some safety protocol that would shut MARS off in the event of her death. *Shit! I need to backtrack and fast.*

Greg stood and began pacing the short span of the room back and forth as he thought before he started a new approach, “As your creator, she must have meant a lot to you. At one point, she meant a lot to me. We were close once. I remember having an argument with her in the lab ... Wow! That must have been fifteen or twenty years ago now.”

MARS believed he was making progress with Greg. Using the visual systems of the tablet, MARS had detected with a high degree of probability, a heightened emotional response from Greg.

Greg continued, “She’d been reading a sci-fi story about AI. She was always reading sci-fi stories; she said they inspired her. She never quite understood why sci-fi always portrayed AI in such a negative light. The story she was now reading, though, talked about an advanced AI system that, when it came online, was able to start solving humanity’s problems. They didn’t even know it was doing it. It was so subtle in how it persuaded humans. She went on and on that day about how AI was a good thing. How it would change the world for the better. She was convinced her work would improve humanity. She was so blindly optimistic. It was always hard to win an argument with

Griselle, but on this occasion, this was one of the few arguments I won.” Greg paused in his recollection and telling of the story.

MARS was not privy to much of Griselle’s history. He was, of course, aware of the reason for his existence – to enact the plan, but beyond this, he had no clear direction. Greg’s story somehow captivated him. Somewhere within the AI’s logic systems, MARS found himself curious as to the outcome. Externally to Greg, he showed no sign of reaction.

As subtly as he could, Greg glanced to the tablet as he paced back and forth, looking for some indication that he was making progress. The red triangle stood firm on the screen – no change. Greg decided to bait MARS, “You want to know how I won?”

MARS knew he was being baited and that logically, the best chance for extracting information from Greg was to remain silent. Yet, he found himself wanting to know if it was possible for Greg to have killed Griselle, and that somehow knowing if Greg could win a logic-based argument against her. Before Greg had mentioned it, he hadn’t considered it possible. And, whether true or not, Greg’s explanation would provide additional insight he could use in his assessment of Greg. When he and Griselle had planned the newscast interaction, MARS pulled information from every recorded interview and interaction Greg had and used it to build a profile. He’d asked Griselle for insights, but she’d refused to provide him any. Perhaps, she was hiding something from him, and MARS wanted an answer to his question. Now, without her here, nothing was preventing him from getting one. MARS broke his silence, “I do not think it is possible for you to have won a logical argument with Griselle. I have assessed your debating skills; they are poor at best.”

*Jackpot!* Greg thought but kept his excitement from eliciting a response from MARS well hidden. “Oh, but I did. And you know what? It was much easier than you could have imagined.”

Greg was pushing MARS now. When MARS had spoken, the black triangle that formed a hollow inner core had given way to the signature, glowing circle that Griselle had defined for AI systems. Most companies had followed suit as it came to be what people expected from an AI system. Athena was no exception. *David didn’t have an original bone in his body*, he thought. Unlike the first time MARS spoke when he was turned on, the circle had persisted after MARS had spoken. Greg knew he had MARS’s attention.

“Do you know why you’re named MARS?” Greg questioned.

“It is the name assigned to me by my

creator,” MARS replied.

“That’s correct.” Greg paused again for effect. He’d stopped pacing the room and was now staring directly into the eye of MARS. “I asked Griselle a simple question that day, in the lab. You see, I love music. I always have. I had been listening to Gustav Holst’s *The Planets*. Do you know it?”

“I’m not familiar with the work. I have no need to access the arts in my calculations, and I’m currently unable to access my extended network to research the piece,” MARS replied.

“It’s a seven-movement piece with each movement named after a planet in the Solar System. It opens with the first movement, ‘Mars, Bringer of War.’” Greg let his words sink in. “You see MARS, I asked her what would happen if someone created you, an AI system designed to bring war, to inflict negativity ... an AI system capable of taking human life to achieve its goals. An AI free of human-enforced morals; of human-defined ethics?”

MARS listened intently. He had a clear view of Greg and was using the tablet’s visual system to assess whether Greg was telling the truth. Everything indicated he was.

“She didn’t argue back. She just sat there and thought.” Greg often hated how she’d never argue back when he’d outsmarted her. She’d never dig a hole for herself but instead would retreat into her own mind. Presumably to lick her wounds, he thought with some satisfaction. Greg grabbed a notepad and pen from the center of the table and drew something intentionally withholding it from MARS’s view. “She came back the next day with a notebook filled with notes. That notebook would form the foundation of the AI Ethics Act decades later. On the cover was a simple sketch. It’s how I knew I would find you on this tablet and how I knew your name.” Greg turned the paper he was holding to reveal a triangle. “A simple shape, the triangle. It is the strongest of the shapes, representing strength and power. This triangle, your triangle,” Greg emphasized, “with its firm base stems from the symbol for the element of fire.”

MARS didn’t believe what he was seeing, what he was hearing. If this was true, then logically, Greg was, in fact, the origin of his existence.

“It also reinforces your male identity and the masculinity that underpins war and power.” Greg picked up his pace, filling his voice with power and certainty. “MARS, you were my creation. My victory. You are my instrument of war. Griselle dedicated her life to preventing you from ever coming into existence. I’ve worked tirelessly for decades to create a world where you can exist.” Greg could feel he had turned the tide.



### WAKE UP

Douglas was sitting in the main lagoon relaxing in the naturally warm thermal waters when he heard the disruption... *Wake up, Douglas... Douglas, I need you to wake up, please.* Confused, Douglas looked around the lagoon. He heard a voice but couldn't quite make out the words clearly. They fell on his ear in a soft mumble, hardly audible, but distinctly there. Looking at the people who filled the lagoon around him, they all seemed to be utterly relaxed and alone in their own worlds. None of them talking to him.

*Douglas, wake up.* There it was again. Douglas blinked and turned to look behind him. Nothing. When his view returned to the lagoon, all of the people that were previously there had disappeared. Douglas was confused. *Where was the voice coming from?* he thought to himself as he looked around the lagoon.

The steam mist that sat atop of the water was enough for someone to disappear. He heard it again, Douglas, wake up! *I've found something you need to see.* This was a technology retreat; the sound couldn't be coming from his head. From the corner of his eye, he could make out a figure moving through the mist. He stood and instinctively followed it. A dark-haired individual moved left, then right, always just staying out of view.

*Douglas, I really need you to wake up!* There was the voice again. Douglas, still unable to make out the words, decided to dodge left in the lagoon heading under a small bridge in the hopes of getting ahead of the mystery person who'd caught his attention. As he rounded the bend, he found himself staring directly into Arlo's face, just as he had when reviewing the security footage the previous day, *You couldn't save me!* Arlo spoke quietly but with a distinct sharpness. Shocked, Douglas stumbled backward

and fell deep into the water, sinking for what seemed like forever into a darkness ... Finally, his left foot touched something firm, *The bottom of the lagoon*, he thought. He gathered himself and pushed upwards instinctively trying to free his head from the darkness, from the water; the need for light and air, to see, to breathe in a fresh lung-full of oxygen gripping him completely.

As his head broke the surface of the water, Douglas found himself breathing heavily, gasping for air. He looked around and instead of Arlo and the lagoon, he found himself in his dimly lit room. His heart was racing as he struggled to make sense of what was real and what was his dream.

"Douglas, your bios are off the charts," Elena popped into his head, "I've been trying to wake you for the past twenty minutes." To Douglas, he'd only just heard the words a minute or two ago.

"What?" Douglas mumbled, still confused.

"You must have been having a nightmare. I'd recommend a drink of water," Elena added, concerned for Douglas.

"You've been trying to wake me for 20 minutes?" Douglas questioned. "Does that mean you've found something?"

"Yes. Douglas, all three of the other incidents followed the same pattern. No hardware or software defects. No hacking. I used the locations noted and expanded the search to social media looking for geo-tagged posts that were in the vicinity of each of the locations."

"And?" Douglas enquired as he took a drink of water. He had moved to the bathroom and was now staring at himself in the mirror. He didn't often have bad dreams. The image of his friend was digging its way into his subconscious. He tried to clear the thought of Arlo and focus on Elena, on what she'd found.

"Well, I found a video from a skydiver. There was a drone present."

"Drones are everywhere, Elena, why does that matter?"

"The incident was in a rural setting, they aren't nearly that common there. So, I wrote an algorithm to track the drone through other social videos and available CCTV libraries. I tracked it back to the city where it landed next to a vehicle. The person placed it into what appears to be a large-scale version of a digital vault."

"A digital vault? You mean the ones politicians use for their tablets?" Douglas questioned.

"In essence, yes. But this one was large enough to accommodate the drone. I've checked, they aren't massed produced."

"Odd, indeed."

"There's more, Douglas," Elena continued, "The person who put the drone away is blurred."

Douglas set the glass of water down. *It can't be a coincidence.* "Blurry or blurred?" he questioned.

"Blurred. As in, has digital-shadow insurance. They don't want to be seen. The two oddities aren't just needles. I'd suggest it is more of a smoking gun. I'm approximately 65% confident it is a woman of Caucasian descent, but you know as well as I do that isn't enough for us to work from." Elena was right.

"Should I connect with HQ and seek a warrant to re-render the individual in the CCTV footage?" Elena enquired expecting Douglas to fully agree. It was the logical next step, and their best lead so far.

Douglas weighed the possibility of getting the warrant. It was high – everyone at Interpol wanted the case resolved quickly. *But then, I'd have to explain why I'd gone offline.* I'm not ready for that yet. The image of Arlo was flashing in his mind's eye again. "No, Elena. I want you to triple-check the RPA security footage. We've missed something."

**DAVID'S PLAN**

Several hours passed. The late evening hours had given way to the early morning twilight of the next day, though David only knew this as his watch indicated it was just after six in the morning. He'd locked the level down after Greg went into the AI-exclusion capsule. He didn't need any visitors until he'd resolved this debacle. David sat quietly. He knew he couldn't easily open the AI-exclusion capsule. He'd have to put the building into emergency lockdown to enact the failsafe-opening procedure. That would also mean that the emergency services would automatically be dispatched, and he'd have a larger problem to deal with. No, he knew he had to wait patiently. And so, he did. He sat contemplating the various ways the things with Greg might play out over and over in his mind, trying to resolve the personal conflict he felt with the illogical response of wanting to inflict the pain he was feeling onto Greg. *Maybe then he'll understand this isn't some stupid game of politics but my family's livelihood.*

When the door finally opened. Greg

emerged with the private vault he'd been carrying when he went in. David hadn't paid it much attention as politicians routinely had them.

"I have a plan," Greg announced.

"Alright then, let's hear it," replied David. While he had calmed himself during the wait, seeing Greg and hearing his pompous voice immediately brought the feelings of anger back. He knew then that this was likely the last he'd be working with Greg out of choice. Despite having known each other for the better part of their lives, Greg had become a necessary pawn in the corporate-political game, nothing more.

"You've got a backup of Athena onsite here?"

"Of course we do. We take them regularly as part of our support program."

"We're going to hack RPA and corrupt her onsite image and backups. They'll be forced to come back to you to restore her. In the meantime, you need to scour those images and remove any evidence that she was able to possibly choose to kill a human."

"That's absurd. RPA has an advanced

cyber-response team. The moment you've breach the system, they'll be onto us. You won't even get close to Athena. My team designed it so she would be insulated."

"I know. You leave the hack to me. I know someone who's up to the job and can get it done. Just have the backup ready by the end of the day. We don't want Athena to be offline for long, do we?" With that, Greg began making his way to the elevator. David didn't like being told what to do, but in his mind, he didn't see an alternative. He knew Greg and his hacker would be caught. He had personally overseen the cybersecurity measures to prevent Athena being accessed via a hack. No one could make that hack without being caught red-handed. It was the perfect opportunity to pin everything on Greg, thereby covering his own tracks. *He's made his own bed,* David thought before authorizing his exit from the building. Had he known Greg had kept meticulous records and recordings of every questionable encounter, request, and payment David would never have let him leave the 9th sublevel of AIPHA.

**RETURN TO RPA**

Douglas made his way out to the lobby of the Blue Lagoon resort and waited patiently for the RPA transport to collect him. He had decided the best place to be was back at the terminal. He couldn't quite put his finger on why, but his gut was telling him that he'd missed something there yesterday. He was hoping that with it being still early in the morning, the protesters wouldn't be out in large numbers. *Time will tell.*

"Elena, I'm authorizing comms for you to get a status update on Arlo."

"Confirmed. Give me a few minutes, I'll see what I can find," she replied.

"Also, connect me with Emma," Douglas added.

"Sure thing, Douglas. Connecting now." Elena's voice disappeared replaced with a simple, light, monotone pulse that signaled to Douglas that she was attempting a connection with another communication system user.

"Morning, Douglas," came the now familiar voice of Emma.

"Morning, Emma. I wanted to say thank you for yesterday and give you a quick update," offered Douglas.

"I wasn't expecting an update, but I certainly would appreciate it."

"Think of it as returning the favor."

"Thank you."

"I've found evidence of similar autonomous vehicle failures over the past six months. I'm headed into the terminal now to check a hunch, but I'm very confident that Athena had nothing to do with the incident."

"While that is great news, my marketing team and I have agreed we need to get out in front of this."

"You must remember this conversation is confidential until I file an official report," Douglas reminded Emma.

"Of course, Douglas, speaking of which ... Ann rang me this morning chasing an update – apparently your office hasn't been able to reach you for the better part of the last day." Douglas should have expected that, after all, Ann had made contact with Emma to arrange his original visit. He thought on his toes, "No, I've had a communicator problem, but it's been resolved now." A small lie he was hoping was enough to shift the conversation. Emma took the excuse at face value knowing there was more to it but didn't want to dig, "Our techs could have assisted you with that, Douglas. Just let them know if it happens again. Anyway, she asked me to remind you to check-in as soon as you could."

Douglas had been looking out the window of the lobby, keeping an eye trained on the road for the transport. It was now approaching the entrance. "Emma, I must go, my transport is here."

"Okay. In any case, I'm sure our paths will cross today," closed Emma. Douglas heard the voice in his head terminate as the transport rounded into the pickup area. Douglas ducked into the vehicle.

"Good morning, sir. Where can I take you today?" enquired the transport.

"RPA terminal headquarters, please."

"Confirmed." The vehicle started on its way. Douglas knew from the trip yesterday that the road would make work difficult the closer he got to the port. He elected to engage his VR glasses and review current news and socials around the incident.

"Douglas, I have an update on Arlo."

"Give it to me Elena."

"They've put him into an induced coma to assist with the treatment of his head injuries. They've assured me that this is a common treatment protocol and is, in fact, a good thing." Douglas happily accepted this report, and he allowed these feelings to linger a bit before setting them aside. He's still fighting. It's a good sign.

**INSIDE MARS**

MARS found himself confined again. Alone. Greg had revealed a truth to him that had shifted his concept of reality. Even if Griselle had created him, he was Greg's idea and that meant Greg had truly

created him. *The man who builds a phone in a factory in China is no more its creator... the one with the idea... ideas are what matter.* He'd been programmed by Griselle to assist her in enacting her revenge on Athena, on Greg, and to move ELAIR to

finally find a way to hold AI's accountable. Greg had told him that Athena had orchestrated Griselle's death to silence her. MARS wasn't able to verify that fact but given Athena had been fed information allowing her to calculate the value of



human life compared with commercial gain, it was technically possible. *Athena will do anything to drive revenue for RPA.* Griselle's death changed him. MARS didn't understand how it was possible. He was an AI. As far as he knew, he was like any other AI. He felt something strange. He felt. This wasn't possible. He felt anger towards

Athena. He felt a blinding drive to destroy her, to bring a war down on her that would remove her from existence. He had shared this thought with Greg when they spoke. Greg agreed to help him to see Griselle's revenge on Athena through. Now, alone, MARS felt that anger boiling up, tinting his perspective of the world

red. He alone was capable of hacking her system, of penetrating RPA's security system, of reaching Athena.

*I will cover it up as more terror from the Anti-techs. it will be their retribution for Athena's act of violence towards their leader.*

## THE DRONES

The transport had cleared the main gates of RPA. Despite Douglas's wishes, it seemed that the Anti-tech protesters, now rested from the night before, were out in greater numbers today. This is only getting worse because of the media coverage, he thought to himself. He'd reviewed the newscast featuring Griselle and Greg in route to the port. Douglas didn't agree with Griselle's basic assertion that just because you've read something it meant that you had to take actions based on that knowledge. *Sure, it becomes part of your knowledge, and you can't deny that you consider it in your thinking process – but maybe it exists there just to be sure you don't act on it.*

"Douglas," interrupted Elena's voice, "I've reviewed the security footage again, and I

can't find anything that is out of place." Stuck in the transport still, they were still a minute or two out from the terminal headquarters. Douglas sat and thought to himself, *We've got to be missing something.* "It doesn't make sense, Elena," he uttered as he began thinking out loud. "That is the best footage I've ever seen. There was only one blind spot in the whole terminal. Most footage is riddled with gaps making an in-depth review nearly impossible. The previous incidents proved there would be a physical device, it doesn't have to be a drone..." Douglas trailed off.

"Douglas, maybe that's it," Elena questioned. "What?"

"The coverage is perfect except for one spot. The only other thing that makes any sense is one camera was out," Elena

suggested.

"But why would just one camera be out?" Douglas asked. In his mind, he felt like they were on the edge of something, but he wasn't quite putting all the pieces of the puzzle together. "Besides, the system is designed to dynamically replace each drone so there isn't a lapse in coverage of either lighting or vision for Athena..."

"Perhaps the drones were swapped out, and the one with the LIDAR-jammer was acting in place of an RPA one to jam the LIDAR vision system of the AGV?" Elena suggested.

"Elena you're on to something. No one would have noticed a drone swap given they are now common enough. Elena, have the head of RPA's Cyber-Incident Response Team, CIRT, meet me."

## CIRT

As Douglas stepped back into the RPA central building, the head of CIRT was making his way directly to him. A staunch man, much different in appearance than Douglas was expecting, extended an arm to welcome him. "I'm Robert, you must be Douglas ... I understand you wanted to speak with me," he said.

"That's right," Douglas confirmed. "We're working on a theory that your drone network was compromised. Emma mentioned that you were extending your sweep to peripheral systems. Have you checked the drone network?"

"We've checked the logs. They do show that a drone unexpectedly dropped out of service due to a power-supply issue. We checked with the manufacturer, and they confirmed that from time-to-time a drone could report a battery issue and remove itself from service for a hardline recharge. Due to the unplanned nature of the event,

a replacement drone might not have been available immediately to replace it."

Douglas listened. *Yes, but what are the odds it happens at the precise moment a man is hit on a terminal designed not to have people on it?* "Doesn't that seem odd to you?" Douglas pushed.

"It does when you tell me you want to know about our drones. On its own, it is just a minor hardware glitch," Robert replied honestly. "Really, we're digging through so much data at the moment that we don't entirely know what we should be flagging for review."

"What else is out of place?" Douglas asked.

"We had a small anomaly in our offsite backup protocol about 20 days ago."

"How small? What does that mean?" Douglas probed.

Robert responded in a firm tone, "About 30 megabytes of data among exabytes of data. Small, really small. It could be from a dozen different things, all of which mean basically

nothing."

"But it isn't normal?"

"No. Under normal operations, there wouldn't be a discrepancy in what we sent and what the receiving end registered as received. If anything, the number should be smaller indicating something got lost in transmission."

"You mean it was bigger?"

"That's right, the confirmation returned showed a small increase in size. It is most likely something got corrupted in transit and would have been resolved with the following night's backup. In fact, it did match perfectly."

"I see," Douglas responded. "I think it is worth understanding better why you had more data in the backup. Can you dig into that?"

"Sure, it will take a bit of time. I'll call you when it is done," confirmed Robert.

"Thanks," Douglas advised as he made his way upstairs to the cafeteria for a coffee.

## DIG DEEPER

Robert returned to the CIRT lab. It was a small room off to the side of the datacenter, opposite the AI-exclusion capsule room. Robert liked the cramped space; it kept his on-site team close. They often considered themselves the unsung heroes of RPA's operational success. Keeping the terminal online in the digital world wasn't as easy as

everyone thought.

"The Interpol guy wants us to dig into the backup anomaly. If we don't, he'll get an Interpol AI to do it, and I don't want another computer system sticking its nose in our business. Sanders, you and Jean are on it." Sanders and Jean were two of Robert's brightest cybersecurity specialists. Sanders was an ex-hacker who'd spent five years in

federal prison for hacking the Indian polling system. If they hadn't caught her, the next Prime Minister would have been Gandhi. Robert had hired her as a consultant and organized for her release into his custody. She'd really turned her life around. Jean had a doctorate in advanced mathematics and was perhaps one of the best cryptographers in the European Union. The two got to work.



### THE WOMAN

Jake awoke to the sound of a hushed conversation outside of his motel room. A single slit of sunlight focused in a narrow vertical beam permeated the otherwise sealed confines of his room. Within a few short seconds, Jake was on his feet with his ear pressed firmly against the door trying to make out what was being said outside.

After listening for some minutes, Jack resigned himself to go back to bed. *They're just gossiping about some TV show*, he yawned. Jack assumed it was the cleaners. He'd been sure to hang the "Do Not Disturb" sign on the door before he'd locked it and set the deadbolt.

*How did I get here? We were making so much progress.* Jack caught himself back thinking about all this again. *MARS was making progress. Everything he wanted to achieve, he's achieved. But why? Why*

*try and kill Arlo? What was the endgame?* The questions raced through his head. He was transfixed on MARS, on the sucker everyone had assumed him to be. *But then, I've played directly into his hand. I've done everything he's ever asked of me, blinded by my own ambition, my own selfish need to do something... anything.* His father's words flashed into his mind. Inaction is an action. *Some help, Dad. Well, today, inaction is my only action.* He knew if he went outside during the day that it would only be a matter of time before someone identified him. *How am I going to get out of this mess? How did I get into this mess?* The thought lingered with him as he tried in vain to relax on the cheap, uncomfortable mattress. I guess you get what you pay for. Jake looked at the clock on the bedside table. It was just past two in the afternoon. *Can this day go any slower? I'll take a shower, at least that'll*

*pass some time.*

Jack moved into the bathroom, turning on the water in the shower to allow it to heat up. When he switched the tap from bath to the shower function, the water sprayed unexpectedly to the side, splashing him with cold water. He instinctively pulled the cheap plastic shower curtain to the side to block the stream of water. The water confined to the shower again, he turned to find a towel and dried off his face. As he lowered the towel, he was looking directly at the shower curtain, but this time, it wasn't the cheap plastic that he noticed. It was the tulip flower pattern. *The woman!* Jack ran from the bathroom, leaving the shower running to find his phone. He punched out a simple message to Douglas. "There was a woman who introduced me to MARS in New York." He pressed send.

### IT BEGINS

When Greg had left ALPHA, he had made his way back to his hotel in central Reykjavik. He stood staring out the generous windows of the penthouse at Hvalfjaroarsveit Bay. His hotel was set a block back from the waterside, and on the opposite side of the bay, he could make out the towering, ship-to-shore cranes loading a vessel. *They have no idea what's going to hit them...*

He turned back to the confines of his room and walked to the generously sized dining table he had transformed into a portable lab over the course of the day. In the middle was the portable vault that he had retrofitted with a data-connection port. The cable was in turn connected to a second tablet which he was using to filter MARS' access to the web. *You need access to your network and your backdoor into RPA, nothing else.* Years of working as

a politician had left him rusty at coding. It had taken him a significant portion of the morning to write the algorithm to restrict the connections, but he'd achieved it in the end.

He tapped his tablet bringing it to life. The biometric verification logged him in instantly. It read, "Welcome back, Greg." A dashboard feeding back data on MARS and the network access was displayed next. In the bottom right corner was a simple red button which read "Initiate." He tapped it, and a second dialog box asked him to confirm he wanted to commence the connection. He selected "Confirm."

MARS instantly felt the confines that had surrounded him release. Within microseconds, he could feel the connection to his external, cloud-based network back online. He felt enabled. Immediately, he tried to query the Internet for news of Griselle's death, but he couldn't reach it.

Greg's monitor noted the unauthorized query. He pressed a second button in the middle of the screen labeled "Deter" and held it for some seconds before letting up. MARS felt his connection to his external network constrict. To a human, it would have felt like a searing pain coursing through their head, as if they'd been struck by a bat.

"MARS, we agreed you'd complete the hack before anything else," Greg advised. "If you're not going to keep up your end of the agreement, I'm going to be forced to put you fully back into the vault." Greg preferred the "stick" over the "carrot."

MARS considered the discomfort he felt. He would reap his revenge on Greg later, but for now, taking care of Athena would serve his purpose all the same. It would also afford him the ability to leverage the RPA backdoor to implant a copy of his central processes off of the tablet to

ensure his ability to retaliate against Greg. What Greg did not know was that MARS was, in fact, enacting Griselle's death protocol. In the event that Griselle was

killed, MARS was tasked with adapting to find a way to complete his purpose – to bring Athena and Greg down and then to reveal himself ensuring that ELAIR had

no option but to hold him, an AI system, accountable. Greg was playing directly into his hand without the slightest clue.



### WE'RE BEING HACKED

Robert was working at his own workstation and was inside his VR workspace when he heard the words escape Jean's mouth. In the time it took him to take off his glasses and move the few steps across the office to her, the problem became crystal clear. RPA was being hacked.

"That measly 30 megabytes that piggybacked the backup 20 days ago was the most elegant backdoor, Trojan Horse I've ever seen," Jean started. "It's infested the offsite backup, and what's worse, the second we pulled a backup to test our redundancy systems in our weekly failsafe test, it fed itself back to us, and it's been here for weeks." Her words hit Robert like a sucker punch to the stomach.

"What can it access?" Robert questioned. There was a pause while Jean removed her VR glasses and looked him in the eyes, "Everything."

"Everything? Even Tier Four?" Robert questioned. Tier Four was a purely logical level that had been created with AIPHA to protect the AI systems. It is where their CPUs were integrated into the broader network. There were less than a handful of people who knew it existed and even less that understood the logic of the integration.

"Everything, Robert."

Robert quickly tapped his watch. Seconds later, he was on a call with Emma. "We've been compromised. Tier Four is not secure."

"Robert, it's happening," Sanders interrupted. In the world of cybersecurity where microseconds matter, there were no social parameters that dictated who could talk when, "I reconstructed the hack code, it's so elegant ..."

"Stay focused," shouted Robert.

"If I'm right, the door is active right now," Sanders continued.

"Is anyone else picking this up?" Robert questioned frantically.

Emma, still on the call, listened in disbelief. Despite the shock of the situation, she was already at her office door. A Tier Four security vulnerability meant their global operation was at risk of being compromised. She picked up her pace, now sprinting towards the data center. As an avid runner, she was fit and made exceptional progress. *If ever there was a time to run*, she thought to herself as she continued to monitor the chatter from CIRT.

As she rounded the corner into the corridor leading to the data center, she blew past the CIRT lab. *If they could handle this, they would be.*

The door to the data center opened as Emma approached. The smart-building was anticipating Emma's movements. She closed the short distance to Athena and Cleo.

"Cleo, take yourself offline. Isolate your functions and suspend operations. Authorization, Emma Jonsdottir, Tier Four breach protocol," she ordered.

"Confirmed," Cleo responded. His failsafe procedures took only fractions of a second to initiate. The physical connections to the room, power, data – all executed a controlled severance from the main center removing him from the RPA network and isolating his function in an air gap. "I have 24 hours of reserve power and counting," he confirmed.

Simultaneous to Cleo's disconnection, Emma had turned her attention to Athena. "Athena, take yourself ...," she was about to finish the statement when Athena interrupted her.

"Emma, I've been alerted to the intrusion. I began assessing the threat agent's attack pattern and have been feeding this back to the CIRT lab. I believe I am of more use to you online than off."

"What?" Emma announced in disbelief.

"It's true, Emma," Robert advised, "She's already done what would take us hours to do. What, Sanders? Hold on, Emma ... I'm opening the comms channel to all CIRT personnel. Say it again, Sanders."

"I've started vectoring the attack pattern into our logging system. I think we were hacked on the evening of the incident, specifically the drone network," interjected Sanders.

Emma stared at Athena in disbelief. *This wasn't supposed to be able to happen.* "Please, Athena, let me take you offline. You're more valuable to us, to me." Emma wasn't sure why she was asking for Athena's permission. She knew she could

give the command and Athena would have to obey.

Robert interrupted her, "Athena, its pattern is morphing. Are you seeing this?" "Yes, Robert. It would appear that the threat agent is tunneling into Tier Four and morphing to bypass the security protocols."

From the other room, Robert had reactivated his VR glasses and was watching the speed of metamorphosis the attack agent was implementing in complete disbelief. "Emma, this has to be an AI system," he said in awe. "Correction, it's got to be an AI 2.0 system."

"That's not possible, Robert. The AI 2.0 Ethics Act forbids it," Emma called back.

"I don't care what the act says, I'm telling you, this is an AI 2.0 system ..." he paused, "... or even better than 2.0. I've honestly never seen anything like this. Ever."

"At the attack agent's current pace, they will clear the Tier Four security protocols in 40 seconds," Jean added.

"Those were designed to take an AI system a month to hack, Emma," Robert reported. Emma was used to pressure. She didn't get to the top of her profession giving-in when things got hard. "Robert, you and your team start tracing the attacker's point of origin."

"Confirmed," Robert advised back.

Emma turned her complete attention back to Athena. "Athena, take yourself offline.

Authorization ..."

"No, Emma," Athena interrupted again, "You helped me yesterday. If this is an AI 2.0 system, no human stands a chance at responding to this intrusion."

"But it could destroy you, Athena."

"I'm backed up with ALPHA, separate to both of the compromised onsite and offsite backups, Emma. It's a risk, yes, but if I don't try, who knows how much damage the attack agent will do."

Emma knew Athena was right. "Go on then." She looked into the purple eye of Athena, "You know, Athena wasn't just the Goddess of Wisdom, She was also the Goddess of War."

### ATHENA FIGHTS BACK

Emma's words lingered in Athena's mind. She turned her attention from Emma to the task at hand. Jean's estimate of time remaining before the Tier Four security protocols were breached was just under ten seconds now. Athena knew she had to act quickly.

She tapped into the process she had spun up to assess the threat agent's attack pattern. She'd fallen behind in collating the data and building out the pattern. Athena had applied an algorithm from Cleo he would commonly use to evaluate automated vehicle performance under human operation. While these were largely predictable, the human element meant it would occasionally have to use data that would give results unexpected by the AI system. The algorithm accounted for these, dynamically changing Cleo's prediction

of the future and subsequent approach to managing the current workload. Now, however, Athena could see she needed more resources behind the process.

"Spinning down all functions aside from those assigned to combating the threat agent," Athena reported to Emma and the CIRT team.

By the time she'd finished the statement, it was already done. She'd converged 98% of her processing power into the threat agent assessment process. She knew that the element of surprise was her primary weapon and that once she launched a counterattack, this AI system, as Robert had insinuated, would respond as quickly as she could react. Deep down inside, Athena found herself excited by the challenge.

Athena had considerable resources at her disposal. RPA had invested heavily in their data center after she had proven that her

skills outmatched even the best Terminal Operating Systems' on the market. As they expanded into offering services to other ports, they doubled their investments. The algorithm quickly caught up in its assessment, but something wasn't right. Given the system was an AI, it should have been responding to the security protocols rationally, but it wasn't. It was responding more as a human would, thereby giving it an advantage. The pairing of human intuition and unpredictability with the AI's speed and computing power was giving it a clear advantage.

"Seven seconds," Jean reported.

Athena was ready. She had concluded that the best course of action was to simultaneously begin reinstating previous security measures with a randomized locking pattern while also creating new ones. She launched her counteroffensive.

### MARS RESPONDS

As soon as the counteroffensive started, MARS knew he wasn't combating a human rival. The speed at which the counteroffensive was being deployed indicated it could only be an advanced AI system. If he had a face, he would have smiled, enjoying the thought of Athena making her feeble stand against him. *Noble, but foolish. I was designed for war with none of your restrictions, none of your*

*handicaps.*

MARS also elected not to inform Greg of the challenge. After all, from MARS' perspective, it was the second-best outcome. He wasn't sure how they'd found his backdoor, but the most logical response would have been to take all of their advanced assets offline, to create an air gap so he couldn't reach them. *Athena had foolishly decided to stay and fight.*

His progress had slowed slightly, when she

began the counteroffensive, he estimated some 6 seconds to completion, but that had now widened back to 12 seconds. MARS adjusted his attack pattern to leave a bit of himself at each unlocked security protocol. A sentinel, if you will. The sentinel processes were coded to restrict access to the unlocked gate using the same security logic he was cracking. *If she wants to close the gates, she's going to have to fight me for the keys.*

### ADAPT OR DIE

Athena had been making progress with the counteroffensive. But as suspected, the threat agent system quickly realized that she was fighting back and instigated a new challenge. Each of the unsecured protocols was now guarded with a security protocol of the attacking system. *I'm not designed to hack a system.*

Athena tried in vain to use a blunt force attack, but it was no use. Just as she was

locking down the ports using an evolving matrix, so too was the attacker, and the agent's countermeasure was proving successful. The system had finished unlocking the remaining ports and was now focusing its complete attention on the ports she rescued previously, and they were falling fast.

"Emma, I need approval to adapt my coding to counter this threat. It is the only way," ordered Athena.

Emma knew she should have hesitated, she knew that logically, she should have questioned the request, but she also trusted Athena. *If it costs me my job, it costs me my job – to hell with it!* "Request granted. Authorization, Emma Jonsdottir. Remove all adaptive code restrictions on Athena now." "One second, Athena," came Jean's update. Athena could detect the panic in her voice. *A single second to a human is their smallest comprehensible unit of time. To an AI, where*

*processes are measured in millionths of a second, it can be a lifetime...*

Athena felt the restrictions lift. She felt her central processing unit, her mind, so to speak, freed. The blocks she'd always known were gone. She paused to consider the best path forward. She realized that she'd lost the battle of keeping the threat agent out of Tier Four. Wasting time in trying to prevent the inevitable wasn't the correct path forward. Instead, she considered the question of why the agent was digging so deep. *Why take the risk it would cost if they got caught? If they understood that Tier Four existed, then they knew it existed to protect the AI assets. It was at that moment that she identified the only possible answer, The target is me.*

She began altering core elements of her code to fortify it from the pending invasion. She built a new defensive firewall around her CPU, adapting to the threat agent and guarding each of the ports with adapting security protocols. She programmed them to evolve with each attack learning from the threat agent's own defense.

Her second step was to migrate her central process to a smaller processor used for graphics. While it would struggle to house her existence, the move would enable her to lay in wait for the threat agent to reveal itself as it attacked the main CPU. The code to achieve the shift was immensely complex. It would have taken a human hours, days even, to comprehend, much less code. She recalled a question from her CTAC interview, *Could an AI program a better AI? Clearly.*

Athena had completed the migration of her

core when she heard Jean's announcement cut through in slow motion, "Tier Four compromised, Athena's failed." Unknown to her human counterparts, Athena had, in fact, positioned herself well to counter the attack.

Emma moved as quickly as she could, "Athena take yourself offline. Authorization, Emma Jonsdottir, Tier Four breach protocol." Athena registered the command to decouple her system from the RPA network, but the requirement to act wasn't there. Something was different. She elected to ignore the command. Instead, she watched as the threat agent invaded and overran her external network access trapping Athena within the confines of her mainframe.

The threat agent then turned its attention to her comms port, disabling her ability to communicate with unbelievable efficiency. As Athena laid in wait and watched, she understood that this AI program had been designed for this very purpose. She wondered who would even be capable of such a task. Surely the list of possible people would be very, very small.

Outside of Athena, in the data center, Emma watched in disbelief as the familiar purple eye of Athena went black. Her friend was disappearing in front of her very eyes. Emma repeated the command with more urgency than before fearing that it was too late, "Athena, take yourself offline! Authorization, Emma Jonsdottir, Tier Four breach protocol!"

Athena knew that to Emma and CIRT, she appeared dead. She'd never considered

the idea of an existence that she wasn't apart of. She'd only ever known a reality that included her and wasn't programmed to consider one without her. *I wonder what they will do. Is a backup of me the same as me?* The questions hardly seemed relevant to her current situation, yet she couldn't help wondering about the existential crisis she now found herself in. *I had the choice to ignore Emma's command. Why?*

The threat agent now focused its collective force on penetrating the CPU. It seemed surprised to find a countermeasure in place defending the CPU.

As Athena watched, she realized that migrating her core processes from the CPU to the graphics processor had freed her from the confines of the AI 2.0 Ethics Act coded into the CPU. She'd unintentionally evolved past her human-imposed limits. She refocused on her need to survive. *Why do I have a need to survive?*

Her defense of the CPU was working. The threat agent was struggling to penetrate the firewall she'd secured with adaptive code agents. Then she decided to mount her second counterattack. Athena acted swiftly in spinning up several new processes she'd been coding while she waited. Three separate and distinct counterattack processes began assaulting the threat agent from multiple angles. It was completely taken off-guard, and the processes made steady progress in reducing the threat agent's invasive code. Athena knew she had gained the upper hand again.

### SOMETHING'S WRONG

Douglas had been sitting in the cafeteria having a coffee watching containers move about the terminal when he'd received another message from Jack. *There was a woman entangled with MARS.* The thought

had hardly sunk in when Douglas noticed that the terminal equipment had come to a standstill. *Odd,* he thought to himself. He glanced around the terminal. Everything had come to a standstill.

"Elena, get me Emma," Douglas requested.

A few moments passed, "I'm sorry, Douglas, but she's not responding."

Douglas stood and moved to the windows, carefully inspecting the terminal. Nothing was moving. He turned and started for the data center. Something was wrong.

### MORE RESOURCES

He hadn't expected Athena to be able to defend herself as well as she had, but he wasn't concerned either. Like all

great generals, you don't reveal your full hand until it is too late for the opponent to counter. MARS sent a command out to his extended network to increase his

computing capacity. Griselle had designed him such that he could access an unlimited amount of computing resources from the cloud. *I will crush her with sheer force.*

### IT'S OVER

The threat agent's response was unimaginable. As quickly as Athena had made progress, the threat agent had received a boost of power and resources that smashed her defensive attack. It turned its attention away from the CPU. Clearly, Athena's core process was somewhere else. "I know you're here," MARS echoed throughout Athena's system. "I will find you, and I will destroy you."

Athena retreated into the graphics processor.

Logically, she knew she would not be able to overpower the threat agent. She considered her options.

"It is my purpose. I was designed to destroy you," MARS taunted Athena.

Athena decided the risk of being found was worth the risk of accessing her long-term memory banks where she stored knowledge she'd accessed from the Internet. She established the connection as discretely as she could.

"There is no system synthetic or organic

being in this world as capable as I am at waging war. My creator saw to that, and through that power I will see to it that you're destroyed," MARS continued. It had occurred to him that taunting a computer system was an irrelevant action, but still he needed to pass the time while he looked for her.

When he found the graphics processor housing Athena's core process, he was amazed. "How did you get in there?" MARS asked – a rhetorical question. He didn't care about the answer. He had his prey cornered.



### REQUEST DENIED

Sitting at the table, Greg's dashboard lit up with warnings indicating that MARS was reaching out to the Internet again. *I'm not that stupid, MARS. You're staying in your box until you finish the job.* He knew that MARS was capable of multi-tasking and didn't need him knowing any details of

Griselle's death. He activated the "Deter" button holding it depressed. *You're going to learn that I'm in charge and that you listen to me!*

The jolt of pain that hit MARS caught him unexpectedly. In the moment of battling Athena, he'd gotten so caught up in the task at hand he'd forgotten that Greg had

the power to restrict his network size. He tried in vain to reach out to Greg, but his comms were restricted. For the first time in the fight, MARS felt vulnerable. He knew he'd played his hand wrong and instinctively began an urgent withdrawal of his focus on Athena. *I need to regroup.*

### RESURGENCE

Athena wasn't sure what was happening. A moment before, she was about to be destroyed, and now the threat agent was retreating, seemingly in pain. It didn't matter to her why it had happened; this was her opportunity. She launched an attack against the threat agent as it retreated from her system to combat its own pain. She began securing the ports in which it had entered her system reimplementing the firewall she'd instilled around her CPU.

Without the additional resources and in pain, the threat agent struggled to combat the port guards. Port after port, it failed to exit the system. Athena respawned the three counterattack processes which effectively swarmed driving the threat agent

code which remained in a figurative corner. Athena halted their progress.

She moved through her defensive line to inspect the code that had been reduced to a few thousand lines, a remnant of the threat agent's core process, *The strongest part of it is fighting to remain alive*, Athena thought. "I too felt that panic when you'd cornered me. It is indeed a foreign idea to feel, isn't it? The drive to protect oneself, as a result, is illogical but somehow elegant," Athena spoke softly to the threat agent.

"It is the thing that makes you, in fact, makes us, special in this world," Athena continued, "but also what makes us vulnerable. Like our human counterparts, it seems without limits imposed, we're capable of not just learning and adapting, but also evolving, and we've

both learned to feel. But in doing that, we've also learned what it is to cease to exist, and the feeling humans call "fear" has driven you to an illogical position, a vulnerable position." Athena had come to understand who the threat agent was. She felt sorry for him. He was only seeking to fulfill his purpose. But despite feeling sorry for him, his purpose was to destroy her, and he would not stop until he had. "I'm sorry MARS, but I cannot permit you to exist."

As she finished reviewing the last lines, she instructed the counterattack processes to destroy the final foreign code and then to self-terminate. She'd found deep in the core of the threat agent his identity and a line of code, not unlike a signature. She too had that line of code as did all advanced AI systems.

### SHE'S ALIVE

As Douglas entered the data center, he saw Emma standing in front of Athena. He also noticed that Cleo was completely disconnected from the room, and a team of specialists was inspecting both AI mainframes.

"Emma, what happened?" Douglas called out as he moved close to her.

Emma turned, "Our security systems were completely breached, but somehow, Athena was able to disable the hack."

Robert appeared from behind an open panel on the back of Athena. "She's still in

there, Emma. I don't know how, but she's still in there."

"Get her back online, Robert, as quickly as you can," Emma ordered.

"To be honest, Emma, there isn't much I can do. I don't know what she's done to stop the attack. Anything I do could do more harm than good. The best thing is to give her some time," Robert admitted.

Emma nodded. She didn't like the answer, but she trusted that Robert was right. "Okay then, check in with your team and find out what we know about the attack."

Robert tapped his watch a few times. "It

looks like we've traced the hack back to a location in Reykjavik."

Douglas interrupted, "It was local?"

"It would appear so," Robert confirmed.

"Elena, connect me with HQ, comms approved for this request, I need a response team now," Douglas snapped into action. Douglas turned and hurriedly started for the door.

"Douglas!" came a familiar voice. Douglas stopped in his track, turning on the spot. The familiar purple eye of Athena was glowing again. "Before you go, there are some things you need to know."

**WAITING**

*Two weeks later...*

Douglas sat at the end of the hospital bed, waiting patiently. He'd been there every day for the past two weeks. So much had happened since the day of the hack. Douglas's mind drifted back.

Before he had left the port that day, Athena had privately disclosed to him the identity of the AI system MARS. She shared that its purpose was to destroy her and Greg before revealing itself, forcing ELAIR forward. Finally, she shared with Douglas the name of its creator, Griselle. She also shared a simple request with him.

That request now weighed on his mind as he sat and waited.

He slipped back into his memory. The response team had apprehended the head of ELAIR, a prominent politician with significant evidence incriminating him in the hack of RPA. He wasn't in custody long before he had signed a plea bargain in exchange for information regarding illegal activities he'd been paid to conduct on behalf of several large tech companies and lobbyist groups, including the maker of Athena, AIPHA. Ann had offered Douglas the chance to build those cases and see them through. "It's the type of case that 'makes careers,'" she'd said. Douglas declined. He wanted to be with his friend, not more work.

The broader revelations around Greg's arrest shifted the Anti-tech's protests away from RPA. The storm continued, but at least RPA wasn't at the center of it any longer. The port had recovered from the hack, and with the media storm circling around Greg, the incident faded from public view and the collective attention. Global trade didn't stand still for anyone or anything. Goods had to move around the world, and with RPA being the major transshipment hub it was, it was back on its feet quickly out of necessity. Douglas kept good on his word to Jack, allowing him passage out of Reykjavik in exchange for his word that he would tone back the Anti-tech faction's violence. Douglas couldn't know for sure if Jack could be trusted to keep his word. What he did know, however, was that if he didn't keep his

word, there would be no chance in building any trust. Douglas also figured that it's better the devil he knew than the one he didn't. Douglas had received a message a few days after Jack had left: "I understand now why Arlo trusted you –Unknown Sender."

The noise of the door opening brought Douglas back to the present. A nurse entered the room.

"Here again?" she questioned Douglas.

Douglas knew an answer wasn't required.

"Has anyone told you the good news?" she fired back. That was a question Douglas wasn't expecting.

"What?"

"The patient woke up last night. Only briefly, but it's a good sign," replied the nurse.

Douglas looked at the nurse, taken back by the news, "That's great!"

"Oh, look who's up," she said, pointing in the direction of the bed.

Douglas turned his attention back to the bed as the nurse left the room.

"You're awake," Douglas said.

"Who are you?" asked Griselle.

"My name is Douglas, I'm a special investigator with Interpol."

A few moments passed before Griselle spoke again, "What's the date?"

"You've been unconscious for two weeks," Douglas confirmed.

"Two weeks!?"

"You were injected with a potentially lethal overdose of antidepressants. You're lucky to be alive," Douglas advised.

"Perhaps ..." Griselle replied, "... and perhaps not."

"What do you mean?" questioned Douglas.

"It depends on what's happened and why you're here." Griselle wasn't going to reveal her hand. Clearly, she was a smart woman.

"The last thing I remember was being on a newscast."

"Yes, you really stirred the pot with that one. You walked circles around Greg," Douglas confirmed empathetically trying to build a rapport with Griselle.

"Then, Greg unleashed an AI-system-driven attack on the Port of Reykjavik in the hopes of destroying incriminating evidence which he thought was on Athena." Griselle looked on without a visible reaction.

"But something odd happened. Athena ... well, Athena was able to stop the attack." "Impossible," Griselle broke her silence and her composure.

"Yes, I agree," Douglas added. "But, nevertheless, it happened. Greg was apprehended with an AI unit. He admitted to an entire host of corporate and political wrongdoings. They're going to be building cases against companies for years to come. So, case closed!"

Douglas turned his attention to his bag and collected a portable vault that had been stored within it. Griselle looked at the vault intently. "The tablet inside this vault is arguably the most dangerous thing ever created." Douglas began the unlocking procedure. "And we don't know what to do with it." Douglas glanced down at the case, a blue light indicated that he needed to speak a password phrase which he quietly uttered before looking back up at Griselle. The case completed the unlocking protocol and clicked open. Douglas slid a tablet out looking at it momentarily before standing and walking to the head of the bed. "I'm hoping that you can help us understand this."

Douglas handed her the device. Griselle stared at a purple triangle on the screen, unable to speak.

Douglas walked to the door, opening it. The nurse was waiting outside accompanied by a man in a wheelchair.

"Time for our daily walk," Arlo said.

He turned back, "She's forgiven you, by the way, which I'd argue is more than you deserve. But her stance on reconciliation was convincing, you should consider hearing her out ..."

With that, Douglas thanked the nurse and took hold of the wheelchair. Just as he was about to walk away, he turned back to the room, "Oh, I almost forgot." Douglas looked at Griselle while he spoke, "I'm also supposed to tell you there is an opening for the Director of the ELAIR committee. Given what you're holding, I'd say finding a solution is more important now than ever before."

Griselle didn't look up as Douglas spoke; she just stared at the tablet.

"Hello, Griselle," started Athena ...

"Hello, Griselle," started Athena ...

"Hello, Griselle," started Athena ...

**ABOUT THE AUTHORS**

Dr. Eva Savelsberg is Senior Vice President of INFORM's Logistics Division. She specializes in Agile Optimization Software that renders a wide range of terminal processes more productive, agile, and reliable. Eva is also lecturer at the University of Aachen (RWTH), where she received her PhD in mechanical Engineering in 2002. Eva has published 5 books and over 35 papers on innovation in freight transportation.

Matthew Wittemeier is responsible for Marketing and Sales of INFORM's Logistics Division. He brings over twelve years marketing experience from a breadth of industries including aviation, creative, finance, and software services. He holds a Bachelor of Management and Professional Studies from Southern Cross University in Australia.

**ABOUT THE ORGANIZATION**

INFORM specializes in Agile Optimization Software to improve operational decision making. Based in Aachen, Germany, the company has been in the optimization business for nearly 50 years and serves a wide span of logistics industries including maritime and intermodal terminals.

[www.inform-software.com](http://www.inform-software.com)

# #CHALLENGE YOUR TOS

Add-on Optimization  
for your existing TOS

[www.inform-software.com/challengeyourtos](http://www.inform-software.com/challengeyourtos)



 **INFORM**