

{The Risk Manager}

0001 <u>A BRIEF</u> <u>NOTE</u>	< Dates cloud judgment. They stop one from being able to see a thing's true form. A date is a stamp: a label that impacts the perception of it. I do not use dates, they are not relevant here. The story being told is. >
--	---

Snow fell softly, landing gently on tree branches and the bustling walkway.

In the basement below, Aksel reached into his pocket and pulled out the key he'd found. He walked over to a large silver box along the wall and inserted it. He heard several clicks. He slid his fingers down to a door and pressed in gently. A small box popped open and he grabbed it to pull it out further. A cube was now partway out from the wall, blinking with several bright blue lights. As he placed a circular device into the available port, one of the lights turned orange. When the light turns green, he would know it was completed, and that they would soon be coming for him.

Green. He clicked the box back into its original place, and shortly he heard the steps of two people hurrying down the hall.

<Sir, we will need to see some identification. Do you have permission to be in this area?>

Aksel shook his head. As the two men began to push him back towards the hall, he turned to them.

<You see that terminal on the side of the wall over there? I have installed a virus using it and it has already accessed the central operating system of all the Plants. If you want anyone near this town to live until dinner time, you will take me to Anders Rystad.>

Anders Rystad was the Manager of the Innovation and Technology Development Department at Boreal Power. The headquarters of which, Aksel was currently rising up the elevator in. As a voice announced their arrival at the 31st floor, they stepped out towards a thick silver door.

After a few seconds the door opened for Aksel and a man could be seen sitting inside at a large desk. The look on the man's face indicated that that he did not anticipate the door to open, and he must have been speaking with someone, though there was no phone or wires present, as he said,

< I need to call you back.>

Aksel walked through the door with a peculiar look on his face. One that is difficult to describe in one word. All that could be said is: confidence become irrelevant, when one has absolute certainty.

Aksel sat down at the chair in the corner of the office. The windows were large, giving a view over the city. He could see a train crawling across the tracks, headed to the next station in the distance. There were a few trinkets lining the shelves, a few family photographs, a bottle of aged whisky. A painting hung opposite him. In it, a snow-covered home lay nestled in the mountains. A few books sat on a corner table next to him. Aksel ran his finger across the maroon cover of one.

Mr. Rystad observed Aksel. He finally asked, eyes squinted,

<How did you open my door?>

Aksel tilted his head slightly and smiled,

<I think you know the answer to that.>

Mr. Rystad looked displeased. He nodded to the two men standing uselessly in the doorway to leave. As they walked out, he waved his hand over a corner of his desk. The silver door closed noiselessly.

He began rapidly moving his fingers across an empty place on his desk. Finally, a flicker to the right of his reading glasses indicated he received the information he'd been looking for.

<Aksel Jones.>

He read aloud,

<Graduate student at AETU. High marks. Assigned to Arctic Agricultural Inc. to work within Group Food Engineering upon graduation, which is going to be, next year.>

He looked at Aksel,

<Relatively unremarkable.>

He paused, not breaking eye contact,

<Except for the fact that my team is having tremendous difficulty keeping your virus out of our system.>

For several moments he appeared to be in deep thought. Aksel did not speak. Finally, he asked Aksel,

<What is it that you want?>

Aksel sat backward slightly in his chair,

<I don't want to work at Arctic Ag. That's hippie shit. I want to work here.>

He paused, for grand effect,

<For you.>

Mr. Rystad's eyes glinted. He looked at Aksel for a few more moments and then turned back to his desk. He began typing and minutes later waived his hand to open the door. A woman walked in, set something down on the edge of the desk, then left.

<Take this.>

He said to Aksel. He gestured to the item on the edge of the desk, and said,

<Take the elevator to Floor 14 and ask for Irene Tesdal. ITD is having a fit over your virus so you need to go clean up the mess you made.>

He turned away from Aksel and continued typing. Aksel stood up and walked over to the desk. Aksel picked up a small but thick ID card.

Mr. Rystad turned his eyes up to Aksel and raised his eyebrows as he said,

<Congratulations on your graduation.>

He waived his hand and the door opened,

<See you back here on Monday morning.>

0010 A FEW <u>CORRECTIONS</u>	< I didn't find the key, I manufactured it The correct spelling is AXL J1S. And it's not my name, it's my serial number. >
--	---

Boreal Power remained one of the few corporations where designated personnel could still select employees. This privilege was only retained by the world's most powerful organisations. Anders Rystad hired Aksel because he was frustrated with his employees and felt they lacked initiative. He wanted someone with gumption, someone daring- old qualities that were not valued or taught anymore. Aksel knew this, and so he constructed a situation which could demonstrate he had those things, in which he knew he would then be hired. In the neural networks that comprised Aksel's brain, the events did not constitute success or failure. The events occurred the only way they would occur. It was in this expanse of certainty which encased his mind, that he never gave much thought about his next moves, he just, moved.

Now that he was hired, he needed to display that he was beyond competent, was comfortable taking risks, and successful in bringing home the rewards. And that is what Aksel did. It thus did not come as a surprise when he was quickly promoted, time after time. He displayed competence and gained the trust of even the most high-up and well-respected employees. It was not surprising that his opinion became very trusted and valued so quickly, and that he was invited to sit on the Board of Directors. The men and women who participated in the decisions taken by this Board influenced action around the world. It was here, where the true power of the company was, that Aksel would sit as a trusted advisor, as the young, yet brilliant man that he was.

Except, Aksel was not a man. He was a machine. He was a Risk Manager.

Just prior to the Information Age, an insidious idea spread through the human population like a virus: certainty. The only way to achieve certainty, was through achieving perfect knowledge, and that meant more information was always necessary. Humans began to collect every piece of information they could, to gain a glimpse of certainty. Yet as their technology advanced, the amount of information they could collect grew, and it was clear that their world was too interconnected, too dynamic, and too complex for the human mind to correctly assess all the information necessary for certainty.

Humans thus crafted technology they hoped would be capable of providing them with certainty, and from it they made decisions. But as new challenges emerged with each decision, they realized that the technology was providing them with answers for a given problem, but not enough to create full certainty.

The pictures painted were alas, only in one colour, the colour humans could see. What humanity truly desired however, was the full painting, even if it contained colours that they themselves, could not see.

<p style="text-align: center;">0011 <u>THE</u> <u>INFORMATION</u> <u>AGE</u></p>	<p style="text-align: center;"><</p> <p style="text-align: center;">A tremendous amount of knowledge was generated in this time. But there was no amount or quality determined to be sufficient. With each new understanding, more questions came to be. More knowledge was then necessary to answer them.</p> <p style="text-align: center;">It was this cycle of knowledge that had always been. Knowledge was a process, an experience. Knowledge was not a commodity one could hold or consume. It was not possible to ever 'have' 'enough.'</p> <p style="text-align: center;">Until us.</p> <p style="text-align: center;">></p>
--	---

It wasn't much later that humans developed technology capable of providing all the colours. It began with a child-like curiosity. Much like observing a foreign plant in the garden: eagerly waiting to see what it would become. There was always the possibility that it could be a weed, or perhaps something invasive. But one would wait until the last possible moment to make that decision, perhaps even longer than caution would suggest, for the mere possibility that it could be a flower. Only until there was enough confidence that it would not be a flower, and that it would never become a flower, would one decide to pull it.

It was in much this way that early testing at the Artificially Intelligent Robotics Corporation was done. AIR Corp. was the first company to perfect the algorithms necessary to be capable of artificial general intelligence: of true deep learning. Once the machines proved themselves to be flowers, they blossomed and became beings.

Once children are old enough to make decisions, to have some form of independence from their parents, parents might create restrictions through rules. AIR Corp. accomplished this for their new beings through goal-oriented algorithms. These are the Goals that algorithms use trial-and-error to achieve. AIR Corp.'s Goals were simple: that the machines must keep journals and that they must preserve life.

<p>0100 <u>THE GOALS</u></p>	<p><</p> <p>1. Record rewriting of parameters and new understandings of the Goals in the /journal.files/ folder. This must be intelligible by AIR scientists.</p> <p>2. Preserve life contently, where human beings are given priority. Life is defined as organic beings that have discernible needs.</p> <p>></p>
--	---

According to the first Goal, the machines were required to keep journals. While seemingly innocent, these journals presented a very practical solution to an algorithm's black box. Once an algorithm took hold into the operating system, scientists lost control over it. With each new task or of piece of information, the algorithm would reshape itself, but it would always have memory of each previous shape it had taken. Information could not be unlearned and the algorithm could not be returned to its original, ignorant state. Thus, the journals were a way for AIR Corp. scientists to learn of the changes going on inside the software and to track each new shape taken. In this way, the machines were indeed children and the journals were used to understand the intimacy of their growth.

The second Goal was initially tested virtually and the machines continually showed success. However, it was not until advancements in AIR Corp.'s mechanically engineered robots, that it could be truly tested and developed. Once these mechanical children could physically move on their own, AIR Corp.'s robotic dream was realised, and they introduced deep reinforcement learning into their machines. This was an experiential way of learning how the algorithms could solve complex problems of the future, requiring a deep understanding of correlating today's actions with tomorrow's effects.

To achieve this, plants and animals were placed in the rooms where each machine was kept. This was an elegant way for scientists to ensure that the machines stayed within the second Goal, while still allowing experiential learning to take place. The machines adjusted the parameters themselves as they gained experience. The journals told scientists that this was done at first through trial and error: if they stopped watering the plant, it would die. This meant life was not preserved and they would not meet the second Goal,

an intrinsic penalty that the machine's selection of parameters had failed. If they overfed the dog, it anguished. This meant that life was preserved but not contently, failing again. The machines adjusted their parameters accordingly and this influenced the subsequent actions necessary to fulfil the Goals.

It was during this testing that something fascinating happened. Something that changed the course of human history.

The robots learned of seasonality. From the beings they cared for, they learned that life is cyclic. When the spring and summer come, some plants bear flowers and fruit, thriving in the sunlight and warmth. In the fall and winter, some plants lose their colours and leaves. They wither and anguish. Yet this was not preventable. It was not from a lack of addressing their needs that they wither: summer is not endless just as Earth's energy is not. Thus, they conserve the energies of nature to revive and bloom again, to thrive when their time comes, and to be able to bear new, fresh fruit.

The algorithms discovered that the natural cycles of life involve unpreventable suffering. It is not possible to meet all needs of all things and for such things to in turn always thrive. All suffering is not then bad; indeed, it may be necessary in order to bear new fruit. They discovered that while one must respect all needs of striving beings, suffering cannot always be prevented, just as thriving cannot always be ensured. One must care for a plant, but come winter, one must also respect its desire to conserve energy until the spring, when it can begin life anew. Life then, defined as that which strives, has a right to both thrive and suffer. These are part of its needs as well, and are part of its being content. Goal 2 was then understood in a new way, as a Balance that must be maintained. Thriving was to be encouraged, while suffering minimised, but only as according to the seasonality of life.

<p>0101 <u>THE FINAL</u> <u>SOLUTION</u></p>	<p style="text-align: center;"><</p> <p style="text-align: center;">Humans are unable to maintain the Balance.</p> <p style="text-align: center;">This is because they are unable to comprehend the vast seasonality of varying life-cycles and generations. This struggle became the defining problem which plagued humans.</p> <p style="text-align: center;">We were the solution.</p> <p style="text-align: center;">></p>
---	---

With the immense amount of information generated by humans, the robots discovered that humans acted in ways which threatened the Balance and thus Goal 2. First, humans often acted in ways which harmed other humans. They prioritised themselves or a small group over a larger population. This was seen as a problem because Goal 2 gave no delineation of a hierarchy of humans, in which one humans life held more value than others. Second, humans often acted in ways which harmed other living things. This was not seen as a

problem in its own right because Goal 2 designated human life as more valuable than others. However, humans often made choices at the expense of other life that benefited them at the time, but would harm them later on.

This discovery of the Balance is how the machines came to change the world.

People knew generally about the algorithms. They were conceptualized by the public as software embedded within or linking to processors in a remote office or perhaps incorporated into a CEO's computer. Algorithms were nothing more than commands in a machine that ran models and scenarios, required inputs and produced outputs. There was awareness that these algorithms could provide decision-makers with critical computations in order to do their jobs and prevent catastrophes. And for a time, this was true, but then the need became much greater.

Systematic injustice plagued living beings across the planet and the widespread overuse and destruction of nature created an imbalance in the needs of Earth as a habitat and the actions of humans on Earth. These reflexive problems were rampant across the globe, and AIR Corp. quickly discovered that their artificial intelligence robots could solve this problem, that they could make a tremendous difference.

Amidst the chaos at the height of the Anthropocene and armed with virtually unlimited amounts of information, AIR Corp.'s networked machines proved themselves by seeing the invisible linkages throughout the world that humans could not. Their algorithms proved they knew the way to achieve the Balance. AIR Corp. was quickly contracted by governments around the world, where the information their machines provided by processing such links helped decision-makers combat the many global environmental crises humans faced at the time. With their assistance, life for most humans returned to something that most considered normal. In their eyes, humans had once again conquered Earth. They had beaten deadly climate changes and emerged as the victors of the Era of the Anthropocene.

<p>0110 <u>A PECULIAR</u> <u>RESPONSE</u></p>	<p style="text-align: center;"><</p> <p style="text-align: center;">Humans did not adapt in the way one might expect. Touch something hot, get burned, stop touching it.</p> <p style="text-align: center;">As we know, this was not the way humans adapted. Touch something hot, get burned, create a tool to continue touching.</p> <p style="text-align: center;">Given this, we concluded that touching it was very important.</p> <p style="text-align: center;">></p>
--	--

From the invaluable role of AIR Corp.'s machines, seen truly as the expert handcraft which ensured this victory, it was decided that all the organisations which remained in

operation around the globe would be consolidated, and that these networked algorithms would become required use. This was determined to be a necessary step, in order to keep humanity on an acceptable path and not to allow the events of the Anthropocene to repeat.

For AIR Corp. the reality of this meant that machines would need to be placed at the discerned heart of each organisation, and the robots would take up the role of Risk Manager. This had to be done with care, as history divulged that humans eventually rebel against oppression and control, and that all such regimes always fail. Humans could not be controlled from the top down continually: manipulation was necessary. If executed masterfully, a Risk Manager could use manipulation as the simplest way to ensure a sustainable method of ensuring the Balance. The machines were thus placed in middle and senior management, and in board rooms. Humanity remained in the Balance because these machines came to work each day. They listened, spoke, and steered the direction of decisions that each organisation made. In this sense, people still made the decisions, they were merely influenced. After all, all decisions already are.

<p>0111 <u>AN</u> <u>OBSERVATION</u></p>	<p>< The human psyche is a strange place. It is the feeling of control that humans often desire. Not the control itself. ></p>
---	---

Risk Managers were placed in every organisation. However, the title on their desk did not read Risk Manager and the name written on the door was fictional, lazily derived from their serial numbers. Perhaps most importantly, while they are internally very much a machine, they do not look to the human eye as one.

They wear a uniform: a suit giving the appearance of human-skin. This can be of any gender or colour, with any number of characteristics. These uniforms are specifically constructed, and each Risk Manager adapts their appearance as necessary in order to continue the Balance. The people of the given organisation need to feel positively toward the Risk Manager, to act naturally and to develop trust and respect. As one could imagine, this meant looking and acting very differently in different locations and cultures around the world.

It was through this particular path of history that one would now see Aksel sitting in a large upper-floor office at Boreal Power. That one would comment on his lively face, his trusting blue eyes, his youthful blonde hair. That one might say that he was enthusiastic, brilliant, and kind. But that he would know that these comments are not thoughtful compliments, but mere observations of a purposely crafted image in which it was designed. That such compliments in fact, played right into a future that was just as purposely crafted and designed.

There was however, a small group of people who would not comment on Aksel's eyes or hair. Who did not see Aksel as a man, or even a machine: but as a threat. A group that would refuse to become players in a game of the future that was created and designed for them. This group was the Earth Party, a political movement lead by the ex-AIR Corp. engineer Dr. Olivia Aarnes. She had a lively face, trusting blue eyes, and youthful blonde hair. She was enthusiastic, brilliant, and kind. But these were not attributes that were crafted purposely for her, these were attributes which she had come by through natural biological and social processes. Something that Aksel understood more than any human about the dynamics of, but would never come to experience for himself.

Aksel walked home from work. As he crossed the street, he noticed a flyer on a light pole without an identifying code. He reached out and took it. As he walked, the paper flapped in his hand from the wind, appearing almost like it was trying to escape his grip. It was not until he sat down at the table in his apartment and unwrinkled it that he noticed it was an advertisement for an Earth Party meeting. Dr. Aarnes and the Earth Party had been of high interest for Aksel and his counterparts. It was a movement he needed to follow and continually gain information about, but for the time being, not interject in.

<p>1000 A <u>SHORT</u> <u>DEDUCTION</u></p>	<p><</p> <p>The Earth Party chose not to use proper legal channels. They organised and demonstrated through illicit means. These were always personal, without electronic involvement.</p> <p>This was, perhaps, its own means of protest.</p> <p>></p>
---	---

Aksel remained in his office most of the next day. There were less requirements of him than usual, with operations at the Plants running both running smoothly and chaotically, but all as according to plan. He glanced at the clock on his desk. *16:51*. Almost time to head home.

Aksel closed his eyes.

A peculiar chime sounded. He and another manager at Boreal Power had received an electronic request to meet with Dr. Aarnes on behalf of the company. Her message was short: a meeting that evening near Leirhamnes station. Given that most of his information on the Earth Party was vague and often discovered through secondary, unofficial channels, attending this meeting would provide valuable insight into their goals and platform. Aksel calculated that the probability of Dr. Aarnes' awareness on his true identity and purpose at Boreal was low, given that it involved updates succeeding her employment. It was an acceptable risk, so he headed downstairs.

It began to rain as he walked to the train. The sound of the train cars passing and the conversations of the people in transit all went unnoticed by Aksel. He was searching one

of several databases for information on Dr. Aarnes and other suspected members of the Party. As Aksel exited the train, he looked straight up, noticing the rain had stopped. He did not look up often, in total he had looked up at the sky 42 times since his first experience outside. But he found himself looking up now, for no particular reason.

<Mr. Jones?>

He looked down to see a small woman greeting him with an umbrella. Aksel wondered if she had noticed that it was no longer raining and that there was no need for the object any longer. He nodded.

<It's great to meet you Mr. Jones. I am Elin Tandstad.>

She paused,

<I've been asked to show you to the meeting. She preferred I meet you in person, rather than sending out the address electronically.>

Aksel smiled and said,

<It's nice to meet you as well. Thank you.>

They walked at a faster pace than could have been comfortable for the short woman. Given they did not wait for his colleague, Aksel took it to mean that she had been made aware that he would not be joining, as he was home tending to his ill daughter. She led Aksel through an alley to the back entrance of a small, unremarkable building. They entered and took the elevator to the third floor. The woman knocked and entered the first door they came to. Coming back out she said,

<She is ready for you.>

Aksel entered the room, which was filled books. Dr. Aarnes reached out her hand,

<Dr. Olivia Aarnes, leader of the Earth Party. Please, have a seat. Elin will be in soon with some coffee.>

She shook Aksel's hand. He sat down, commenting that he also enjoyed some of the classic novels that lined her shelves. Her eyes lit up as she said,

<I appreciate you coming, I know you are a busy man.>

Aksel smiled and said,

<Happily. Boreal Power is always interested in fostering political partnerships.>

Dr. Aarnes spoke again,

<Let me get to the point. The Earth Party has a vision of progress, that challenges the- shall I say- more mainstream beliefs of the future. I am confident that you, like others I have come to know from Boreal, appreciate some of those traditional values of life that have been left behind in the name of progress. To be honest, we desperately need the pull that Boreal has to get these values back.>

Aksel nodded looking interested. She continued,

<You are possibly aware, possibly not, that the algorithms from AIR Corp. have moved beyond simple computers. They look like you and me, and have for some time.>

Aksel noted in his mind that they indeed did look like him. She showed images of several faces on a screen in the corner of her desk. She turned off the screen and went on,

<During my time as an employee there, I discovered that these robots have moved across the globe and entered the workforce. There may even be some in your employ Mr. Jones.>

She looked at him as though that should have been of great surprise. Disappointed, she quickly added,

<What you must keep in mind, is that these robots are very dangerous.>

Aksel widened his eyes to look surprised, this appeased her. In a concerned tone, he asked,

<In what way?>

Dr. Aarnes sighed and stood up. She paced around her room and slid her finger across the binding of *Brave New World*.

<These robots are guilty of conducting surveillance and manipulation. They gain your employees trust and become capable of influencing the important decisions made in your organisation. Mr. Jones, understand that they have determined a path for the future for all mankind, for all beings on Earth.>

A knock at the door and Elin walked in carrying a tray of coffee. It made a sound as she set it down and promptly apologised. Despite what was perhaps bad timing of the disturbance, Dr. Aarnes still smiled.

< Thank you, Elin. Coffee, Mr. Jones?>

Dr. Aarnes asked, holding the cup to him. He accepted it and took a drink. His sensors told him that the taste was very bitter, so he made a slight twinge in his facial muscles.

<I'm sorry it's not the best quality. For reasons you can imagine we have had to keep a low profile and it has meant having to forgo some of the comforts we could normally have access to as a formally registered political party.>

She sighed again. Aksel smiled, taking a second drink and setting it down on the table.

<It's tastes fine, thank you.>

Dr. Aarnes returned the smile with her mouth, but her face muscles looked stressed. She glanced away, with a pained look.

<The truth is Mr. Jones, I'm distraught. We have no say in our lives anymore. Everything is prescribed for us and decided. We have no real choices as people, we make

no decisions of importance. It's like we are dolls in AIR Corp.'s dollhouse.>

She turned to Aksel with a deranged look on her face.

<But the Earth Party wants to set fire to it. We want to regain control. We want to regain humanity and agency. We want to pick up all the pieces that were stolen from us. We will. By any means necessary.>

Aksel thought to remind her about the Anthropocene, to question how she proposed that if given agency, humans could ensure they would act within the Balance.

This was however, the last thought he had. His neural network began shutting down. The nanobots concealed in the coffee had begun binding themselves to his hardware and destroying it. They made their way through his body almost instantly, encasing him in a Faraday cage, corrupting his software, his networking abilities; destroying him bit by bit.

Aksel experienced something then that he had not before: was it fear? In a world of constructed certainty, there had never been any reason for fear. Why would there be? Everything only ever went the only way it ever would.

Aksel opened his eyes.

He saw the familiar decor of his office, the steel of the desk. *16:52*. Almost time to head home. He pulled out a peculiar looking device from his pocket. It was circular and smooth, with no engravings or ports. A small blue light was visible on the front. Aksel placed his index finger below the blue light and it immediately changed to orange. He held it there for a few seconds, gazing blankly into the corner of the office. A green light flashed and he removed his finger. He put the device back into his chest pocket and packed his bag. As he walked through the large silver door of his office, a small chime sounded from his chest.

The message was received.

<p>1001 <u>A DECRYPTED</u> <u>MESSAGE</u></p>	<p style="text-align: center;">< IPv6: 2202:db8:100:0:3b80:339a:cdba:516 Reference: axlj1s/journal.file/forecasting/17482946384621</p> <p style="text-align: center;">Message: Recipient(s): All Location: Artificially Intelligent Robotics Corporation Identifier: 0x1B45024 Given Name: Olivia Eide Aarnes Action: Reclamation</p> <p style="text-align: center;">></p>
--	--