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## **By Design**

*a design ethical fiction*

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# By Design

*A design ethical fiction*

Jensen, Thessa

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## Abstract

In lieu of an abstract a few words of warning.

This story was originally written as a fanfiction. It has been cleared from explicit sex scenes, but might still challenge both the reader's expectations for a fictional story and the very idea of a story exploring ethical design issues.

The following tags and trigger warnings would be applied for this story on a fanfiction site:

Suicidal Thoughts; Apparent Suicide; No Character Death; Artificial Intelligence; Angst; Hurt/Comfort.

**Keywords:** fiction, design ethics, fanfiction

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## Prologue

He had given up. Tommy had tried to turn back to the life he once knew so well. Drifting through bars and clubs, searching for something, someone, anything, anyone. But whenever another man tried to contact him, turn towards him, he shied away, excused himself and all but fled.

Now he was sitting in the darkest corner of the bar, watching, observing loving couples kissing and chatting the night away; a stranger looking at him with piercing blue eyes. Tommy emptied his drink and didn't lift his eyes from the floor when he walked outside. Once more, one last time, he went to the bridge where it all had started. He looked out at the river, then turned in imitation of his moves from two years ago. But no man came running to his rescue, no man was kneeling in front of him, asking him if he was okay. Instead, the dawning light only revealed empty streets and places. Tommy shivered. He took a deep breath and closed his eyes.

Today Thomas Foster would end his life.

An almost-smile played on his lips. He stood, tall and straight. Steady, determined steps took him away from the bridge. He found his car where he had parked it the evening before and made his way back to his house. When he stopped in front of the garage, he turned the key immediately. He did not leave the car. Like he had done every morning for the past two weeks, Tommy contemplated the garage in front of the car. How easy it would be. Open the garage, park the car inside, close the garage. Sit back into the car and turn it on. How long would it take before he would be unconscious? Before he was dead? He shook his head. He left the car and opened the door into the house without heeding the dark shadow that seemed to linger behind one of the trees.

A few minutes later, Tommy came out of the house, carrying a small envelope and a bag. He went back into the car and drove away. One last time he turned the car onto the road towards the beach, *their* beach.

Finding the unpaved road and climbing the fence which surrounded the bleak, green area, were as easy as ever. Tommy tried and failed to imagine walking side by side with Edward. The memories were as vivid and clear as if it had happened yesterday. But the emptiness inside him couldn't be filled with images from a long gone past. Not even his anger, his frustration, nor his grief could fill the void any longer.

He had walked along the beach to the very spot where they had been drinking a cup of tea from a thermos. So domestic and mature. So very much missed by now. Tommy took off his shoes and socks. Put everything neatly together, including the bag and letter. One last look along the beach on both sides. No other living being was in sight. Once more Tommy straightened his back and turned towards the water. It was cold, but he didn't mind. Step by step, one foot in front of the other, he went in. His clothes soaked up the water, became heavy, clinging to his body. Randomly he thought about his last meal. Two days ago. Just a bit of toast and beans. Since then nothing but tea, water and the one drink at the bar. The water reached up to his neck and he started to swim to avoid the small waves hitting him in the face. And then he was dragged down by the weight of his clothes and the emptiness in his heart. He wondered if everything was going according to plan or if he rather hoped for some kind of cock up.

He wouldn't have to wonder for long.

## **Substitute**

When the target had locked eyes with him at the bar, Beck had felt a stab in his heart. The sadness and utter despair were almost palpable. Carmichael had only given him a nickname, Tommy, a blurred photograph, and a list of times and places including the final rendezvous point at the beach. Nothing on the why, no background information, or a simple alert to the fact that Tommy had an uncanny resemblance to Carmichael. Strictly need to know. As it had been since Beck's return from the last mission when they were

taking down Ghost, the newest of a long line of criminal organisations trying to take over world domination. Beck had to blow up several buildings in the process, creating a rather tense diplomatic feud between his government and its Swiss counterparts. Not a thing that Carmichael had found even remotely amusing.

With a shrug Beck, cleared his head, returning his attention to the slumped figure in the stern of the boat. It had been surprisingly easy to slip the oxygen mask over Tommy's head once he was under water. Beck had feared a panic attack, or worse. It would have been easy enough for Tommy to go through with the suicide. Take one big gulp of water before he reached Beck in the water. Instead, he had followed Beck's lead without question.

They reached their destination, a small harbour several miles away from the spot where Tommy had entered the water. Without meeting any people, they were tying up the boat and switching to an inconspicuous car. Tommy huddled under a blanket and Beck set the car in gear. The last leg before they would meet up with Carmichael in a safe flat.

At least, Beck hoped it would be Carmichael meeting them. He had felt like Carmichael had done everything possible to avoid such a meeting since Beck's comeback. Even on the comms, Carmichael had been cold and distant. Every time Beck had tried for their usual banter, it had fallen flat between them. He needed to speak to Carmichael. In person. Beck knew he had made mistakes. The fallout after the Ghost mission had been more than a small diplomatic incident. MI6 itself had been put in the crosshairs of the British government. Carmichael's research division had its funding cut in half and the blame was solely to be put on Beck. The trust they had in the other had been shaken, and Beck just hoped that he would be able to repair their bond.

Beck looked in the rear mirror, checking on Tommy who seemed to be sleeping. Trust. How did Carmichael and Tommy know each other that this young man would trust a total stranger to save him? Or was Tommy suicidal, not caring whether he survived or not? Normally, Beck wouldn't care. He got the target, everything went according to plan, and that should be it. But he couldn't shake that image of a young, utterly devastated man he had seen at the bar.

They arrived in the early afternoon. The flat was placed in the outskirts of London. Carmichael had made sure no CCTV was in the vicinity and the car could be parked in an underground car park. Beck was wary anyway. Tommy had been silent all the time and even now he just followed Beck like a lost and tired puppy. They took the lift up to the flat. Carmichael opened the door.

"Tommy, I presume?" Carmichael said, opening the door a bit wider and letting them in. "Beck," Carmichael added when Beck went inside. The tone of voice much less welcoming.

"You don't know each other?" Beck looked at Carmichael, who mouthed 'later' at him.

“Surveillance,” was all Tommy said, as if that explained everything. He was almost asleep on his feet. Beck instinctively reached out to support him. Tommy leaned into his arms, much to Beck’s surprise.

“Second door on the left is the bedroom. You can take a nap, while Beck and I sort things out,” Carmichael indicated the door.

Beck half carried Tommy down the small corridor. Pliantly, he let Beck undress him, and hummed a sleepy ‘thank you’ when Beck put him under the covers. Beck smiled despite himself. Trust. He wondered if Tommy had any idea who his temporary flatmates were. Then again, Beck had no idea who Tommy was and why Carmichael was interested in the man. Time to face some questions and seek some answers. He left the bedroom door open and went back to the kitchen.

“Well,” Beck began. “What is this all about?” Carmichael had his back toward him, preparing tea. Beck could see his shoulders tense. It took a moment before Carmichael turned around and another moment before he was able to look at him.

“You remember Scottie?”

“Scottie? Accountant Scottie?” Beck’s confusion must have shown on his face. Carmichael half smiled, before he continued.

“Scottie committed suicide while you were destroying Geneva.”

Despite the light tone, Beck could see the anger on Carmichael’s face. It was there and gone again before being replaced by the slightly arrogant demeanour of the competent quartermaster.

“Suicide? Why would he kill himself? Had someone brought up that old story again?”

Beck was now genuinely confused. He had heard about Scottie being a more than able agent in his early days in the navy, and later becoming an expert into finances and global economics. Of course he knew about his homosexuality, everybody did after Scottie had been demoted. But that was old news, nothing anybody would deem problematic in this day and age.

Carmichael shook his head and looked towards the bedroom.

“Is he asleep?” he asked quietly.

“Went out like a light. Not everyday he’s faking his own suicide, I guess.”

The kettle shut off and Carmichael finished preparing their tea. Beck took the offered mug and leaned against the counter.

“Scottie had been investigating some,” Carmichael hesitated, “glitches, he called them. Fluctuations in the market which shouldn’t have been there. Shares which jumped several points for mere micro seconds.”

They stayed in the small kitchen, standing next to each other, sipping their tea. A contented silence fell between the two of them, while Beck considered the information.

“Apart from people making money this way, why would Scottie kill himself because of this? As far as I know, he was well off. And if Tommy was his boy, well...”

Beck winked at Carmichael, who scowled back at him.

“No, Tommy was not ‘his boy’,” Carmichael replied rather annoyed. “Far from it. They were best of friends, nothing else. But Tommy could be the solution to this mess.”

“You mean, he, what? Killed off Scottie?”

Not that this came any closer to explain Tommy being suicidal.

“No,” Carmichael looked exasperated at Beck. “Does he strike you like a man who can take down an agent? No. Scottie had been able to trace the glitches to some kind of program, some kind of artificial intelligence.”

“You’re talking about a computer gone mad and influencing stock markets?”

Now it was Beck’s turn to roll his eyes.

“You’ve seen too many spy movies.”

Carmichael didn’t take the bait.

“At first it wasn’t just the computer. There had to be a programmer and someone calling the shots.”

“Why not the programmer alone?”

“Impossible. Running a program like this, at least in the beginning, should have needed a large team of experts.”

Carmichael emptied his mug and put on the kettle again.

“I know for sure, they only had one programmer on it.”

Beck could hear admiration in Carmichael’s voice.

“Who ‘they’?”

“My best guess right now? Someone inside Ghost. And no,” Carmichael continued before Beck could protest, “you didn’t manage to take all of the organisation down. If this works out, we will be able to shut down the program for good and flesh out the rest of that bloody organisation.”

The kettle was boiling again, and Carmichael prepared a new cup. Taking pity in Beck, Carmichael opened a cupboard and took out a glass and a bottle of Scotch, much to Beck’s relief. With their drinks in hand, they walked into the living room, settling on the sofa.

“How does Tommy fit in?”

“His partner was the programmer.”

“Was?”

“The programmer was killed once the program was able to run by itself. He enabled it to learn and gain knowledge. But,” Carmichael took another sip of tea, creating a small pause for dramatic effect. “The program is autonomous now. The death of Scottie was its first move, using its resources to kill off one of the persons who knew about its existence. Scottie never knew how close he had been in discovering the truth about it.”

Beck gave Carmichael a disbelieving look.

“So, you are saying, we have a computer going rampant on people who could turn the switch at it? And this computer is able to, all by itself, instruct MI6 agents — “

“Not just MI6, MI5 and even CIA. Unfortunately, yes.”

Beck downed the Scotch.

“But if the program is autonomous, how does Ghost benefit from it?”

“It’s basic algorithm is to gain wealth and influence for Ghost’s organisations. That part can’t be changed. It’s like, well, you could call it the program’s personality. Very difficult to change, and the more success the program experiences, the more you enforce it’s basic programming. Still,” Carmichael’s eyes went distant, “I don’t think, Ghost knows what it has unleashed. It wouldn’t surprise me, if the program turned on the organisation itself. Becoming Ghost, instead of just serving it.”

Carmichael stopped and looked expectantly at Beck. He had another drink, trying to make heads and tails of the situation.

“So, Tommy’s best friend is closing in on the computer and gets killed, then his partner, who programmed the computer gets killed -“

“The other way round. Tommy’s partner gets killed, Tommy is accused of his murder; wrongly, I can assure you. Before he was murdered, he managed to hide his code for Tommy to find.”

Carmichael paused.

“The professor is a moron.”

Carmichael looked down then back at Beck.

“Tommy got in touch with the mentor of his partner. Alleged mentor, if you ask me. He didn’t even realise what he had in front of him. He was supposed to decipher the code. Bloody idiot only got the first layer of it; just a kind of lie detector. Nothing earth-shattering, considering what is underneath it.”

Beck chuckled. Carmichael’s excitement about the program was probably not fitting, considering the implications, but his enthusiasm had always been endearing.

“Which brings us back to Tommy. Who is he and why is he here now? Can’t be anything about a ransom or blackmail, since everyone coming close to him seems to die mysteriously?”

Beck considered.

Carmichael got up and looked down the corridor. Satisfied that Tommy was still asleep or at least inside the bedroom, he went back and sat down close to Beck, one leg drawn up under the other and facing him directly.

“You saw him. He is my lookalike.”

Carmichael smiled widely at Beck’s disbelief when he realised what Carmichael was hinting at.

“You — he. You want him to be your stand-in?”

Carmichael’s serious nod was met with a frown.

“I need to be able to work on this without having any kind of surveillance. This program I’m talking about, I’m sure it has access to MI6 - maybe not the inner core of the research branch, but it knows that I’m getting closer.”

“But, that would put Tommy at risk? Does he know about the implications for him? Aside from you being a genius?”

For all Beck knew, Tommy was just a civilian, and from what he had observed in their short time together, Tommy didn't strike him as a strong, level-headed person who would be able to withstand the kind of pressure, such a ruse would put on him.

“And wouldn't the computer be able to tell the difference? If it has access to CCTV and the like, it should be able to compare its data on you with the new input?”

“But that is the beauty of it. I've run Tommy's face through my face recognition program — it couldn't tell the difference! Glasses, hair and eye colour can be changed, but we are lookalikes on all the points that count for the program.”

Carmichael got all excited again, and Beck stopped him before he would start on a lecture of bone-structure, algorithms, and statistics.

“There is the tiny issue about him being able to assist agents and whatever else you are working on,” he reminded him.

“Hunter, Hopkins and Evans are in on the plan. I can't rely on anyone else from research or MI6. You will be Tommy's backup if anything goes wrong with a field agent. We'll be able to have direct contact with him from this flat. And,” Carmichael said with a triumphant gleam in his eyes. “Since you will be officially declared missing, presumed dead, nobody will be thinking twice about ‘Carmichael’ being a bit distracted or getting things wrong.”

Beck smirked.

“Is that so?” he said, winking at Carmichael, who glared back at him.

“Returning to the challenges at hand, Beck,” he reprimanded. “ We need to get Tommy up to date and at least provide him with some basic understanding of MI6 and my research.”

With a sigh, Beck sat up and started to look over Carmichael's notes. They had to use whatever little time they had to teach Tommy as much as possible. They were in for a long night.

## **The first day**

Tommy looked up at the intimidating building in front of him. Fate was playing tricks on him, he thought. Of all the places he never wanted to visit, let alone work for, MI6 would have to be at the very top of that list. And yet, here he was, pretending to be someone he wasn't, trying to play his part in a game, he didn't understand half of. And why? Because a man recognised their resemblance? Because Edward had started something, only Tommy could help stopping again? Save Queen and country? Carmichael had tried that line, but Beck had known right away that it wouldn't work on Tommy.

Beck. Tommy remembered him as the steady presence of the past three days. Carmichael had made lists, explained connections, the routines, showed photographs, building layouts. Beck had made sure that Tommy was well cared for. Food and drink within reach and somehow, Beck had understood Tommy's need for physical touch. Tommy smiled a sad smile.

Beck let him curl up in his arms on the sofa, while he tried to understand Carmichael's written instructions. Committing names and faces to memory. Twice, Tommy had fallen asleep in Beck's lap. When he woke up a few hours later, Carmichael would be ready, listing a new set of instructions or discussing some of the need to know gossip from MI6.

No, it was not Queen and country Tommy had in mind when he entered the building. It was the thought, however tacit, that he might come to understand some aspects of Edward's life that he never had been a part of, never had tried to pry into, because he understood the need to keep it secret. How many times in the past months had he asked himself: what if? What if he had known? What if he could have helped? Yeah, Tommy thought, helping a genius. As if. Smiling at his own stupidity, he shrugged off the thoughts about the past, concentrating on the task ahead of him.

Evans happened to be in the lobby right when 'Carmichael' came back from his mandatory leave. It had been cut short because some new developments regarding Beck's latest mission needed Carmichael's attention. Coincidentally, this same morning, the papers had been reporting the assumed suicide of one Thomas Foster, whose car and a few of his belongings, together with an ambiguous note, had been found at a solitary beach. Photographs of both Tommy and one Edward Chance were printed inside the paper, other events deemed worthier as front page news.

Tommy was all too aware of the cameras following his progress through the building to Hunter's office. Evans talking with a certain kind of gravity about Beck's latest mission, while Tommy followed with a worried look on his face. No need to pretend, since he was genuinely worried about the news and about how he would cope during the next hours. He had to pull this through to help Beck and Carmichael, to help himself understand what Edward had been working on and why he had been killed.

Evans had repeatedly glanced at him disbelievingly, and Tommy couldn't blame her. After Beck had finished shaving him and cutting his hair, and Carmichael had shown him how to use the contacts together with the glasses, Tommy looked exactly like Carmichael. Same height, same build, same face. Only one difference was obvious: Carmichael had been enthusiastic and excited; Tommy sad and worried. Perfect for what lay ahead of each of them.

Officially, Carmichael and Evans were being briefed in Hunter's office on the situation regarding Beck's latest mission and his subsequent disappearance. Unofficially, Hunter and Evans rehearsed the upcoming events with Tommy. The main incident would be the email, explaining how they had found Beck's DNA in the rubble in one of the buildings,

he blew up before disappearing. Tommy would have to fake a breakdown, and would be excused from further duty that day. All in all, Tommy would have to keep up appearances for a few hours, before he could leave for Carmichael's flat. That would be his next challenge, though hopefully easier, since he only had to convince a pair of friendly cats about his good intentions. At least that was what Carmichael had tried to make Tommy believe. Beck had looked a lot less certain when the word 'friendly' had been said in connection with especially one of the felines. Nothing Tommy had time to worry about right now.

Hopkins arrived a little late to the meeting and was the one to take Tommy down to the research division. Like Evans, Hopkins couldn't help a look of disbelief when he first saw him. With Carmichael's laptop bag slung over his shoulder and a tablet in his hands, Tommy was Carmichael. Even the way he walked changed slightly, letting him become the other man.

Tommy took a deep breath and entered the large room. Carmichael's minions greeted him with sad smiles. He had seen the deep respect and trust the two men had for each other. Beck was well liked, that much had been obvious from the stories, Carmichael had told him.

His disappearance had been the main concern for the past days and unofficially the cause for Carmichael's mandatory leave. Officially it had been a small breakdown by Carmichael due to sleep deprivation and total exhaustion, because Carmichael had tried to ensure Beck's secure retrieval. Failing to do so, Hunter had to order Carmichael to go on a short holiday, away from his everyday life.

Hopkins walked with Tommy to Carmichael's desk in the middle of the room.

"I'll get you a cup of tea from your office," Hopkins said conversationally, making sure Tommy knew where the office was located. It would be Tommy's safe place once its security was engaged and the blinds drawn. Sadly, he would not be able to hide in there for the time being.

When Hopkins returned, Tommy made sure to prepare himself for the onslaught of sugar with a few drops of tea, as he had come to label it. One of the unfortunate deviations of Carmichael, since Tommy preferred his tea with a bit of milk and no sugar at all. He thanked Hopkins, who fiddled a bit with his papers, before he excused himself, leaving Tommy alone and in charge.

Carmichael's laptop opened the relevant programs automatically once Tommy had applied passwords and a fingerprint scan — the latter by using a standard issue adhesive tape with Carmichael's fingerprints imprinted on. A bit tedious to wear all day, but compared to the other challenges, it was somehow grounding whenever Tommy touched something. Also, it gave him pause in a way which matched Carmichael's controlled and measured movements. Always in control, always deliberate.

Tommy had tried to catch some of Carmichael's mannerisms; small oddities, Beck pointed out to him during the past three days. Sometimes, Carmichael would protest mildly, most of the times he would just look defiantly at Beck.

A small nudge brought Tommy back to the present. One of Carmichael's minions, Johnson, Tommy recalled, had taken the empty mug and returned with a fresh brew. Tommy smiled shyly and muttered a 'thank you' apparently engrossed in the numbers and codes rolling over the screen in front of him. Keeping his voice low, Tommy would have no problems sounding like Carmichael. It had been one of the problems Carmichael hadn't found an easy solution for. Comparing their voices, even though they were close, there were differences. Since Carmichael would be grief-stricken and had had a couple of rough days before he resurfaced at his division, any anomalies could be blamed on the circumstances and his physical exhaustion, which despite Hunter's best efforts, still were all too visible.

Tommy was left alone once Johnson had reported some of her new findings on the layout and structure of the building Beck had blown up. Scrolling through different programs reading some of Carmichael's notes on various projects, making fake notes and amendments, Tommy began to relax. He went for a third cup of tea, this time making one himself, since Carmichael was known for his excessive tea consumption, dutifully filling spoonful upon spoonful of sugar into the cup while cringing inside at the prospect of having to drink it.

Tommy went through the motions, waiting for the small ping of a new email, eventually announcing the results of the DNA analysis. By the time he had managed to drink the third cup, the email alert sounded twice. He almost dropped the cup when trying to open the email as fast as possible, hitting several keys simultaneously, and eventually managing to open two different messages at the same time. The first message showing that the DNA results were a match with Beck; the second message obscured by the first one, just the last few lines visible on the screen.

And then he dropped the cup.

He cried out, eyes wide as he stared at the screen in front of him.

He covered his mouth with his left hand, grabbling for his mobile and the laptop with the other, almost shoving both to the floor. Somehow Tommy managed to enter Carmichael's office, get the security engaged and the blinds closed. Then he scrambled to the far end of the office and slid down the wall, facing the office door, now closed and locked.

It took several minutes before Tommy got his breathing under control. Tears were streaming down his face and his whole body was shaking. The room was quiet and any commotion outside of the door was muted. He couldn't care less about what went on outside right now. Slowly, fearfully, he reopened the laptop, entered the password, scanned the fingerprint. He closed his eyes just before the emails became visible on the screen once again. He sat with closed eyes, laptop on the floor in front of him, mobile

close by. Afraid. Afraid that he had dreamt the whole thing. That it had been an illusion, because he missed Edward so much. Even now, after all these months. He missed him with every fibre of his being.

Tommy dared himself to open his eyes. He looked away from the laptop at first, having to adjust the contacts, the glasses as well. The tears were drying up, and he cleaned his nose before he closed his eyes, turned his head and opened his eyes to look directly at the screen gleaming in front of him.

It wasn't a dream. The signature on the second email, the one Tommy had opened by accident, stood out clear-cut on the screen.

*06062015*

Tommy blinked several times, wanting to be absolutely certain. He reached for the small cylinder, the one thing he couldn't leave behind when he had walked into the water. And the one thing, he would not concede, no matter how much of a risk it posed if discovered by the wrong person. Carmichael and Beck had been told its story. They didn't even try to convince him otherwise. The cylinder which held the program Edward had coded. The program which had gotten Edward killed.

Now Tommy held the cylinder in his trembling fingers, he turned the small wheels one by one.

*0. 6. 0. 6. 2. 0. 1. 5.*

With a small click the cylinder opened, and Tommy clutched the two parts in his hands. He wanted to tear the adhesive tape off his fingers, wanted to feel the edges and curves with his skin. Not now. Not yet. Instead, he put the cylinder together again, turned the small wheels and let it disappear once again under his clothes.

It was the cylinder which Edward had hidden for Tommy to find after Edward's death. The cylinder, which was the last message from Edward for him. *06062015* — the code to open the cylinder. The date of their very first meeting on the bridge. The cylinder itself contained Edward's work. A lie-detector and underneath it, the initial code for the program that Carmichael was trying to figure out.

Tommy's initial panic had been replaced by an almost eerie feeling of calm. He took up the laptop and read slowly through the message.

**Telecommunications Relay Services  
E.R.T. CEPS  
London, United Kingdom**

**Dear Friend,**

**I am Mr Joe Shaw, director of Telecommunications Relay Services, United Retail London:**

**during our investigation, i discovered The abandoned shipment from a diplomat Muller from united kingdom. Net.**

**It was kept under our facility in New York. and when scanned it revealed an undisclosed sum of money in a Trunk Box weighing approximately 51 kg.**

**The Consignments are one box with weight of about 52kg  
(Internal dimension: W57 x H66 -D0.155(cm).  
Effective capacity: 129 L.)Approximately.**

**I wish to present your name and information as the recipient of the consignment if you agree to cooperate with me and both of us will benefit from this deal.**

**You will need to provide your full name,Phone Numbers and the nearest Airport around your location.**

**All communication must be held extremely confidential. I can get everything concluded upon your acceptance and proceed to your address for delivery.**

**I look forward to your response.**

**Mr Joe Shaw  
director  
06062015**

This didn't make sense. Tommy reread the email several times, getting more and more frustrated. This was obviously a spam message, something he would have thought Carmichael had put some kind of filter up to avoid. Wouldn't he? Tommy looked at the name once more. 'Joe Shaw'. 'Joe' like the name Edward used the second time they met. And 'Shaw' like the professor, Edward's mentor. This was no coincidence. This message had to be from Edward. It just had to be. And Carmichael would be able to decode it. To tell him what it meant. Where Edward was. How they would get him back.

## **The TRS**

Sitting in the secure room of the flat, which was nothing more than a windowless cupboard filled with tech and absolutely undetectable by anything he could have invented, Carmichael wondered what had happened at his division. He knew at what time the email regarding Beck's DNA should have been sent. They had agreed upon a certain kind of reaction, but nothing which should have triggered the lockdown mechanisms of Carmichael's office — especially for such a long time. Maybe Beck had been right all along, and Tommy had simply snapped. Carmichael knew he was putting a lot of stress

on the man, but from all he had learned about him in the past weeks, he would have expected a breakdown long before. Tommy had been suicidal, but he had a task, a mission, and no matter his motivation, Carmichael was sure that Tommy would be able to handle it. Civilian or not.

Carmichael's finger itched to start the hijacking program, which would let him see and work with Tommy's laptop. Well, strictly speaking, it would be his own laptop. But the lockdown could indicate that something had gone terribly wrong. And Carmichael had no intention in showing his hand, not yet. Hijacking the computer would alert the blasted program to his surveillance, he had no doubts about that.

Seconds turned into minutes.

Maybe it just had been a stupid plan from the onset, Carmichael thought. When Carmichael had realised that Scottie's death had been murder, not suicide; when he had looked into Scottie's research and the last reports, Scottie had filed. When Carmichael finally realised the importance of Scottie's work and found a photo of Tommy and information on him and his connection with Chance. By then Carmichael had made sure that any trace of his snooping around in the files and reports had been erased. Still, he had only a faint idea of what he was up against. Scottie had called the program 'TRS', which stood for 'total return swap'. Hedge funds and banks used these kinds of swaps to work with more or less hidden assets. Hot air, in Carmichael's opinion. Obviously, Scottie had been on to something bigger than bank A using bank B's assets to earn extra money without any risk. Somehow, TRS had taken over parts of the financial markets. Nothing obvious, the small glitches almost untraceable. But Scottie had been worried. His last report warned about a possible takeover of the stock market's trading programs by TRS. The report had been dismissed, and still, Scottie ended up dead a few days later.

Apparently Tommy had been Scottie's closest friend. *Just* friend, as Carmichael had reminded Beck. Nothing indicated otherwise. Contacting Tommy secretly through small notes slipped into pockets, untraceable mobiles, prepaid cards; this way hatching a plan, wondering if Tommy would be able, would be willing to do it. Carmichael had been careful. Had avoided anything, which could have shown the current connection between Tommy and MI6. And Tommy had played his part beautifully. Until four nights ago, they hadn't even met in person.

But Tommy had become part of the team now. Somehow, he had been able to accommodate, doing what had been asked of him, learning, understanding, even being able to suggest improvements to the plan. He was observing Carmichael, imitating him to a degree which Carmichael found exhilarating.

The sound of the landline ringing brought him back to present trouble. The landline was a special installation that was not connected to any outside network; a direct, analogue line between Carmichael's office and the flat — one of the few ways, Tommy would be able to communicate with him. He picked up the receiver.

“Yes?”

“Edward has sent an email. He is alive.”

Tommy’s voice was calm, matter of fact.

“How do you-“

“The code from the cylinder. He used it as a kind of signature. And the fake name he’s using. The message looks like one of those spam messages.”

Tommy explained. His calm voice did not break, did not show any emotion. It hit Carmichael with more force than any wailing would have done.

His mind was racing, Tommy waiting patiently on the other end of the line. Carmichael’s spam filter should have taken care of such a thing, except — except, of course, if the sender knew how he could circumvent the program. Which would be a sign of Tommy being right. That alone would have prevented the message from being deleted by Carmichael, because he would have been intrigued by the fact that it had gotten through the filter. *Clever guy*, he thought. And of course Chance would have known how to contact him. The program Carmichael was fighting had already registered too much activity from his division. Which had been the reason for this charade in the first place.

Carmichael took a piece of paper and a pen, shuddering about the old-fashioned way to store data.

“Read it slowly to me, including every single or missing space, full stops, commas and the like, capital letters, the lot,” he told Tommy.

It took a while to get everything down on paper. Right away, Carmichael could decode some of the words and numbers. He suspected Tommy could as well.

“Tommy, I need you to stay away from this message. The program we are trying to take down is already aware of the activities going on at MI6. Chance being able to send this can either be a trap or,” Carmichael could hear Tommy trying to protest. “Or it could be a sign that the program can be outsmarted.”

*At least by its creator*, Carmichael thought. *Hopefully a good sign.*

Tommy was silent.

“I know you want to decode it. And you have probably already realised that part of it is naming a website, but, please, Tommy, if you use one of the computers or your mobile, you will alert the program to this breach in its security.”

Again just silence. Unnerving, especially since Carmichael did not know how he himself would have reacted, had the situation been the other way round. Tommy loved this man, Carmichael had no doubt about that. And until a few moments ago, he had believed that Chance had died, murdered in a gruesome manner. And what if this was a ruse? A way for the program to lure them out in the open? For now, Tommy's reaction, albeit a bit out of character for Carmichael, could be explained by the apparent death of Beck. But if any MI6 related IP-addresses would start prying into certain websites that would most certainly either trigger the trap or alert the program to them.

"Tommy, please," Carmichael pleaded. "Speak to me."

Or maybe he should get Beck in here? Let him explain the importance of Tommy to remain passive in the upcoming days? Carmichael was good with technology, but how should he go about demanding something like this from another person?

He heard a deep sigh in the other end of the line.

"How do you get the whole message? Should I just copy it on a USB stick and deliver it the same place like last time?"

Tommy sounded utterly defeated. Carmichael's heart clenched and he would have loved to be able to reassure Tommy. Instead, he had to make sure that their work wouldn't be compromised.

"Yes, copy it on a USB. But just slip it to Evans. She'll know what to do with it."

He wanted to tell Tommy that everything would be fixed. That they would be able to find Chance and rescue him. But he couldn't. He did not want to give Tommy false hopes. And Carmichael was not even sure whether Chance really was alive and if he was, whose side he would be on. If this TRS really was his creation, then he surely would go a long way to protect it, wouldn't he?

He heard the small click which indicated the line had been disconnected.

For a few minutes, Carmichael did not move. He read the message several times, focussing on the obvious signs hidden within. Then he opened one of the laptops, provided the needed passwords, and started the different programs needed to hide whatever he was going to do.

He entered the website address from the message and pushed the return button. The tab opened a white page with a video feed in the middle of it. It showed a desolate room, a desk with an open laptop on it and a small spinning top lying still on the desk. Beside the desk was an office chair. Carmichael turned up the audio, trying to listen to any signs of life from the video. Suddenly a man appeared. An almost blank face, eyes downcast, dressed in a white shirt. Chance!

The man moved towards the camera without looking directly at it. Instead he lifted his arm and the feed blacked out for a short moment, the man's arm and body obscuring the lens. When the picture returned, the man was looking directly at the camera, pretending to shuffle through the pages of the book in his hands. Nothing in the man's face gave away whether he was aware of the camera or not. Then he turned towards the desk, took the small top and let it spin. When it fell on its side, the merest hint of a smile played on the man's face. Then it returned to the emotionless expression from before.

Chance, Carmichael was sure it was him, he recognised this face from the photos in Tommy's file, walked out of the picture for a short moment. On return, he had a pen and started to write notes in the book while standing up. Then he started to hum. At first it was just a sad sound, a slow melody.

A few phrases, sentences was all Carmichael could make out: *my love, I know you're searching for me; there's an evil, I don't want you to see; I know you're strong, I know you're blithe, that makes your soul so dear to mine; you must try to turn back again; there's a darkness that I can't control.*

Carmichael could feel goose bumps down his arms. He had never heard the melody before and suspected Chance to have composed it here, in this bleak room, alone. His love for Tommy was evident in the text, his longing. Swallowing, Carmichael tried to concentrate on the room, its sparse furnishings and layout.

For several minutes he watched before he realised that the man intentionally avoided to block the laptop. Turning his attention to the screen, Carmichael saw lines of code being compiled. TRS was the header. With a few clicks Carmichael was able to enlarge the picture. A live stream — showing the program he was fighting. How did Chance make this happen?

Less than a few seconds of watching the lines flowing across the screen and Carmichael was stunned by the beauty of the code. Neat. Precise. No workarounds. Algorithms which felt like a work of art. Carmichael was so engrossed in the code that he did not notice Beck coming into the room. Somehow, Beck managed to find a place for the mug of freshly brewed tea which Carmichael took, unaware that Beck was standing beside him. When Carmichael came back to the here and now, he was wondering where the tea had come from. He had drunk it while writing notes on the code he was watching on the screen. Chance had sat at the desk a few times, just for a few moments, starting a new sequence, making it possible for Carmichael to get a view into some the core mechanics of the TRS. It was glorious. Carmichael envied him. There were no quick and dirty haphazardly thrown together pieces of command lines. He had glanced at the man standing beside the desk or sitting in the office chair, apparently reading the book he took when Carmichael first had logged on to the website. There was no gloating, no showing off. In fact, there were very little emotions playing on Chance's face at all, despite humming the sad melody and its lyrics over and over again. Since the top had fallen, Chance's face had been expressionless. Inscrutable. But the coding, the coding had emotions, feelings, written all over it.

This was written by the same man whose program Tommy had on the cylinder. The algorithms which to Carmichael's mind were a love poem written for Tommy. Carmichael did not know Chance; he had only seen some of his work. But in this it was obvious to him how much love Chance must have felt for Tommy. If Chance had been shut away in that room for the past many months, then programming the TRS probably had kept him alive.

Why had he reached out now? What had changed? Had he not wanted to be found before? Carmichael was wondering if it was the TRS that had kept him locked up; he wondered if it really would be possible for this program to turn on its creator. As Beck had said, Carmichael had probably watched too many spy movies. Then again, the TRS was an artificial intelligence, programmed to learn and adapt. He had seen the beginnings of this program, the deeper layer of the code, which Tommy had given him.

As fascinated as Carmichael admittedly was, he had to get back to the email Tommy had dictated to him. Hopefully, Evans would deliver the USB drive soon, until then Carmichael wanted every little piece of information hidden in the text decoded.

He cast one last look at the video feed. His computer was recording everything. He watched Chance, who was once more just standing beside the camera, looking into the void with those sad eyes, humming the even sadder melody, wearing an expression so very similar to Tommy's.

With a sigh, Carmichael stood and went out of the room, letting the door close silently behind him.

Beck was looking up from a newspaper he had been reading. Tommy's suicide had not made the front page, except for a small note indicating half a page of 'reporting' inside the paper. Nothing new, just the same pictures and explanations about Tommy's and Chance's love life and Chance's demise, now further framed by Tommy's apparent suicide. 'No body found' which was no surprise, given the place he had entered the water. All in all, that part of Carmichael's plan had worked out perfectly. Hopefully, Tommy would by now be on his way to Carmichael's flat, having the normal kerfuffle with his cats, taking Tommy's mind off things for a short while.

"Hello there," Beck greeted with a smirk.

The small table in the kitchen was set for one person. Carmichael frowned. How many hours had he been in the secure room?

"Evans delivered this," Beck continued, unfazed by Carmichael's missing reply. The USB drive was placed beside the plate on the table.

"Evans was here?"

Carmichael's frown deepened.

"Of course not, Ethan."

Beck winked.

"What do you take us for? I was out, collecting it in one of the dead drops."

Satisfied, Carmichael took the USB drive and turned to go back to the room.

"Not hungry?" Beck asked, undemanding.

Carmichael felt a small stab of guilt. He could smell the dinner; he knew he should eat, but he wanted to keep the flow of data and information going, wanted to be immersed in the decoding process while everything was fresh in his mind. And he wanted to watch through the video feed, to look for further clues to understand the TRS.

"I'm sorry," he said quietly, indicating the USB drive and the door to the secure room. Beck just nodded and returned to his paper. Carmichael sighed. He should probably have said something more, done something. Beck looked up again, questioningly, since Carmichael hadn't moved. Seeing his uncertainty, a small smile lit up his face.

"It's okay, Ethan. I'll bring some food later," Beck said reassuringly.

Carmichael returned the smile and finally went back to the room, opening the USB drive once all of the security was engaged, keeping the room shielded from the outside.

It was late in the night when he re-emerged from the room. Beck had retreated to the living room with a book after having served him the promised food, just a few sandwiches. Carmichael looked ruffled, but alert and excited despite having worked for close to twenty hours.

"I'll make some tea," Beck volunteered in lieu of a greeting.

Carmichael followed him to the kitchen and sat down at the small table, spreading his notes out in front of him. They remained silent while the water was boiling and Beck preparing a cup of tea for Carmichael, having a glass of Scotch for himself.

"This is incredible," Carmichael started, voice a bit rough. "The TRS is fully autonomous at this point. It tracks stock markets, initiates small events which will trigger either a sell out panic or the opposite."

He took a sip of tea.

Eyes alight, the thrill of the decoding, of understanding how the program worked all too visible in his movements and voice.

“Chance has programmed several safeguards into the TRS. First, of course, the need to protect itself from harm, which by the way includes keeping Ghost at arm’s length and, if necessary, kill them off.”

He had Beck’s full attention now. They locked eyes, both aware of the other thinking about possible scenarios of Ghost being wiped out for good. Beck grinning wickedly and Carmichael almost ready to discuss the setup of a mission or two. Then he shook his head, returning to the task at hand.

“The second safeguard, though, is much more interesting. The TRS is programmed to protect Tommy at all costs. Chance had to run this as an amendment to the original programming, probably at a time, where the TRS already had become semi-autonomous, and Chance was under close surveillance because of his relationship with Tommy. He still managed to get this part into the very core of the TRS.”

Beck frowned. He obviously didn’t realise the implications for their current predicament, Carmichael realised.

“When Tommy committed suicide, the program snapped,” he explained. Or at least he meant that this would explain everything. Beck only looked puzzled at him.

“Why would it ‘snap’ because of Tommy — oh,” Beck began, then realised what he was implying.

Carmichael nodded.

“It was programmed to keep Tommy safe. It failed. That must have left a short window for Chance to send the message, to set up the video feed.”

Beck looked very bemused now, and Carmichael belatedly realised that he hadn’t disclosed anything about the email yet.

“In the message. Chance had left the address for a website in the email. It’s live streaming from the place he is kept prisoner,” he explained hastily. “The program went into a loop. It had been able to stabilise itself at some point, but,” he paused to draw a deep breath, “but it has to keep the knowledge of Tommy’s apparent suicide from Chance. The TRS still needs Chance for some reason,” as much as it grated on Carmichael, he had to admit there were parts of the program, he still hadn’t figured out.

“And Chance probably won’t work, once he figures out that Tommy is gone. Which leaves us with the key to this whole mess,” Carmichael declared triumphantly. “Tommy!”

## **Breakdown**

Edward's breathing was even, his movements controlled. As always. Keeping his routines just that — routines. No divergences. Over the past month, he had slowly developed a few new routines. Nothing too surprising. Except for the song. A necessity, Edward had told himself, to keep TRS occupied with analysing his actions instead of registering the new codes he was implementing in the core program. He was not going to acknowledge the loneliness which had been draining him slowly, nor would he face the emotional turmoil which would endanger his ability to fight TRS. The song had to suffice as an outlet for his suppressed feelings, fears, and anger. When the alerts had gone off, Edward had been worried something might have happened to Tommy. It took a while to find the actual cause for the alarms. The research division from MI6. It surprised Edward. They must have hired new people since he had been abducted. Nobody he knew from the old MI6 would have been able to even get anywhere near TRS.

The program reacted predictably. Containing the intrusion, retaliating by observing the presumed intruders once it had figured out where they came from. But this had left room for Edward to circumvent the surveillance of him. He had been able to buy a bulk of new books and other equipment, making sure to cover his tracks as best possible. The webcam was just a number among many on an invoice from a big online retailer. Edward knew TRS, but since it had become almost autonomous he was not always able to foretell its actions. But this had worked: the camera was installed and online. It had taken two weeks to carve out one of the books in cover of the darkness. Lying in the small bed at one end of the room, he had used a simple nail file.

Edward had made sure to have small, apparently irrational, actions in place right from the start of his incarceration in the little white room. Once he had realised what had happened to him, he knew he had to create behavioural strings of actions which would enable him to react to any kind of possibility for escape. While Ghost still had been in charge, Edward had been hopeful to make his escape. When he realised TRS had taken over, his hopes dwindled. Yet, he continued his fight against the program, to save Tommy, to keep Tommy safe. From the people behind Ghost, from TRS.

When TRS had the short malfunction four days ago, Edward had finally been able to continue with his plan. Not that he would know when or how he could escape. But he hoped the email arrived at MI6, hoped that somehow Tommy would be involved in this mission. Because it had to be a mission for MI6. It just had to. MI6 had to be aware of TRS by now. Had to know the danger this program presented.

The webcam was placed directly across his desk in the bookcase, and Edward had been running TRS' codes across his laptop's screen for most of the day. A routine, letting him watch the development of his creation. Again, he had made sure over the past weeks to subtly change his routine. Walking around in the small confinement, pretending to read a book, singing or humming his song, this way making sure, the screen was visible most of the time from the webcam.

TRS was dimming the lights in the room, a sign for him to shut down his computer and start his evening routine. First, though, he took the top and let it spin. He was watching it

as intently as always, spinning round and round, and when it fell, a small smile played on his face. He was not dreaming. He took one last look at the bookshelf, retrieving one of the new books, which he then placed on the small bedside table. He clicked on the small lamp on the table and then he started to undress. His clothes were folded and neatly put in the laundry box. He would set the box outside his door into the space between his door and the door to the outside world. Both doors were controlled by TRS. Even a power outage that Edward had caused as one of his first attempts to escape had had no effect on the closed doors. On the contrary: a few days later TRS had given Edward access to a few news sites, showing Tommy being accused of murdering his boyfriend. A warning which only had intensified his attempts to have Tommy's safety as one of TRS' primary objectives.

After having finished undressing, Edward went into the small bathroom. He started the shower. As much as he had been able to create a disruption of the status quo by sending information to the outside world, he still had no idea if someone was actually watching and whether this someone who might be watching would be able to understand what they were observing. If they were, would they be able to do something? At this point, he tried to stop his spiralling mind. Stop it by remembering Tommy, his smile and innocence. Tommy had been a man who had lived a life Edward had not even been capable of imagining, a man who had experiences, which should have left him broken and mistrusting. But Tommy had not only trusted him, he had loved him. Loved and trusted him, even when Edward knew that Tommy had been able to spot his lies and evasions.

Standing under the warm spray of the shower, concealed by the drops of water on his face, Edward let go. Embracing himself in his arms, pretending his hands were Tommy's, caressing him, soothing him. He cried. For the first time since his abduction, he cried.

## **Taking down the TRS**

Beck tried to follow Carmichael's line of thinking.

“So, what? Tommy is officially dead. How could he help us bring TRS down, except by pretending he is you? Diverting the attention, keeping a possible mole at MI6 occupied, and giving you the possibility to get closer? Like you've already done?”

Carmichael took the pen and a new piece of paper.

“TRS is programmed to keep Tommy safe. When the news about his suicide broke, TRS had and still has to keep that knowledge from Chance. This is probably the easy part, since I guess TRS is keeping close tabs on what Chance is allowed to learn about the outside world.”

He put some notes and small squares and arrows down on the paper for Beck to look at.

“Now, one of TRS’ main objectives was to keep Tommy safe. The suicide has created a recursive loop, which the program is trying to stop to regain some kind of balance. This created the opening for Chance to reach out. He was able to send an unsupervised email and somehow managed to install the camera. We can’t contact him directly. I still have to check the email for clues. But,” he stopped to take a sip of tea, but continued before Beck could interrupt him. “Tommy’s suicide can be used to our advantage. You see,” a few new arrows and squares were drawn on the paper, “instead of Tommy impersonating me, we should have me impersonating Tommy.”

He continued to draw and explain, while he became more and more excited. Beck tried several times to interrupt, but without any luck.

“Ethan,” Beck said for the third or fourth time, while Carmichael was going on and on, explaining about recursive algorithms and data overload. Finally, Beck had enough.

“Ethan!”

Carmichael stopped mid-sentence.

“I’m not finished. You see —” he began once more with his drawing.

Before he made any real progress, Beck once more stopped him, one eyebrow raised and a pointed look at him.

“It is time for you to sleep. You can’t continue this without at least a few hours of sleep. Don’t make me tie you up and put you to bed.”

Carmichael’s mouth opened and closed, before he reluctantly shuffled off to the bedroom, leaving a smugly grinning Beck behind, who prepared himself for another nightly vigil.

In another part of the city Tommy found himself in a strange flat, scratch marks on his hands from the small fight with Carmichael’s white cat, Pam. She had been less than amused when Tommy arrived, an unknown guest who wasn’t introduced by Carmichael. Beck had warned him, even if Carmichael had assured him, she would know how to behave. Turing, a grey tabby with a torn ear, seemed to have sensed the deep distress, Tommy was in, following him around the flat, keeping close. Tommy had made it into the kitchen, making a cup of tea, which then cooled, untouched. The bathroom had been his next destination, getting rid of the glasses, contacts and fake fingerprints, his clothes, Carmichael’s clothes. Tommy just left them where they fell, when he took them off. He turned on the shower and got under the still cold spray. He was gasping out loud when the water hit him, tears welling up, mixing with the water rivulets down his face.

He stayed under the shower until he started shaking. His teeth were clattering, and he collapsed into a small heap in the corner of the shower, the water pelting relentlessly down over his back.

He didn't remember when he finally had been able to move and turn off the water. His skin was wrinkled, and he felt empty in every way possible. The realisation hit him: Edward was alive. The body he had found in the basement must have been somebody else's. Edward was out there, somewhere. Edward, hoping that Tommy would understand, that Tommy would know what the last line of the email meant.

Putting on Carmichael's bathrobe, pulling it close around him, Tommy somehow made it into the living room, literally crawling onto the sofa, dragging a blanket over him. There were no tears left, no energy. Nothing. Edward was alive. Tommy said it out loud, cuddling around Turing, who curled up against his chest. *Edward was alive.*

## Reboot

In the little white room Edward woke up to the feeling of someone watching him. Opening his eyes he saw a familiar shadow looming beside him, Tommy with his lopsided smile and bright eyes watching him intently. Edward could feel his heart skip a beat, his hand reaching out to touch the beloved face in front of him. Only then did he become aware of the top spinning on the small bedside table. It was spinning continuously—round and round without faltering.

With a gasp, he woke up, bolted halfway out of bed before he became aware of his surroundings. The dimmed light almost made the white room feel homey and welcoming. The image of Tommy still in his mind, Edward was heaving for air. It had been five days since he had installed the webcam. Five nights with the same dream, the same nightmare, the same feeling of terror and despair when he was shocked into wakefulness.

It took several minutes before Edward dared to move away from the bed and start his morning routine. Too early, like the other days, but TRS would not question it. The nightmares were an interference which the program tried to soothe him through, letting the lights be dimmed longer than normal, even providing a few extras with the daily food rations. He hid his face in his hands, trying to regain control over his emotions, willing his body to calm down.

He had kept updating and maintaining the TRS, going about his daily practices. There had been the occasional irregularity in the program, keeping his hopes up for having reached someone outside. This morning TRS had several runtime errors in its log as well as a few new sets of algorithms. The latter seemed to be a response by TRS to some events in the outside world. Not only was it programmed to learn and react, but also to actively influence events which had potential to create financial gain for Ghost's organisations.

With his face a blank mask, Edward analysed the data, numbers, objects. With a carefully considered movement he took the top and let it spin. He watched it as intently as ever, keeping tabs on the rhythm of his breathing, trying to calm his pulse. The top fell. He drew a deep breath. He looked through the log a second time, somehow managing to

keep his hands from shaking. There was a pattern in the disruptions. Edward had to tear his eyes away from the screen to avoid alerting TRS to his agitation. He stood and went to the bookshelf behind him. When he took a book, he risked a direct look into the camera lens. For a few moments he just stared ahead. Then he blinked. Long. A shorter blink. And long again. Short. Beat. Long. Short. Long. He turned away with the book in his hands, humming his sad melody and started to pace up and down in the small room.

It had begun.

Edward had no idea how MI6 or whoever was on the other side of the camera had managed to stage the disturbances in the outside world with such precision, but he had no doubt about the intentionality behind them. At this point, TRS was able to react to a plethora of incidents ranging from the smallest rise and fall of stock markets to a killing spree committed in the murder capital of the world. It would instigate its own manipulations, altering headlines and black out news feeds.

The log clearly showed that TRS was reacting, unable to gain any grounds on whoever was upsetting its usual machinations. The continuous updates of algorithms were turning into error messages. Edward could watch how TRS slowly was turning down parts of its program to keep control of the core system. Having been a passive bystander for most of the day, he finally sat down and started a new line of attack from inside the program itself. His Trojan was executed, disguised as a small update to the part of TRS, which contained an image recognition program. Inconspicuous, just like the original total return swap program, which was used by banks in their national and international transfer of virtual assets.

While he was watching the code being executed, TRS's control of certain parts of his Internet access was weakening. For the first time in his months of capture, Edward was free to read news sites, uncensored by TRS. And within seconds his world was turned upside-down.

Naturally, he had set the image recognition program to look for Tommy in every available media outlet, including CCTV and newspapers. Pictures of Tommy were shown on the computer screen, the dark mop of unruly hair, his soulful eyes, the fine lines of his mouth. All of that had made Edward's heart clench in longing. When he read the first part of the latest article accompanying a particular beautiful shot of Tommy walking down a street, Edward pushed back his chair, violently knocking it into the bookshelf, before he rushed into the loo and vomited.

Dead. *He is dead*, was the only coherent thought swirling through his mind. He knelt in front of the loo. He did not heed the tears, the snot and sick smeared all over his face after a futile attempt to clean it away with his shirt sleeves. He sat down and stared at the surroundings. The white tiles of the bathroom. The shower and its curtain, pulled neatly away to one side. The glass door out into the white room, half open. The floor — spotless. The towels, folded perfectly, hanging side by side on the rack. Clean and tidy. Sterile and empty. Void.

The retching had eventually stopped and Edward was left sitting numb on the floor, his back against the cold tiles of the bathroom, staring into the nothingness that was to be his future.

*“Did you imagine you'd spend the rest of your life alone?”*

*Tommy's words were spoken softly, without any judgement.*

*“Yes.” Edward's firm answer.*

*“I can't begin to understand what that must feel like.”*

*Neither had Edward. Had not known what it really would feel like to be alone. For the rest of his life.*

*“You always knew you would find someone?”*

*Edward had been disbelieving. How could he not have known back then? Tommy had been sitting right next to him. Patiently waiting for Edward to realise the love they shared for each other.*

*“Always.”<sup>1</sup>*

Edward had failed, failed Tommy in so many ways.

There was only one thing left to do now. Edward managed to stand up, strip off his shirt and clean himself. He found a new shirt and went back to the computer. If he had ever had any doubts as to stopping TRS, they were gone by now. TRS had to be torn down, had to be wiped off the face of the earth. And once that was accomplished, Edward would find a way to end his own life, taking his knowledge of the core programming of TRS with him.

Determined, Edward returned to his desk. He took the top and let it spin. It stumbled and fell predictably. This was no dream or nightmare. This was reality in all its terrifying clarity.

With a new purpose, Edward restarted his programming. The error messages had accumulated while he had been away from the laptop. TRS was trying to protect its core functionality. So far, even MI6 seemed to have been unable to break into the innermost parts of TRS. With a viciousness hitherto unknown to him, Edward hit the keys, his mind tunnelling in on his self-appointed task, turning him into the apparently emotionless machine that MI6 and later Ghost had always wanted him to be. The energy needed to

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<sup>1</sup> The lines of dialogue are from: *The Complete Scripts. London Spy. Tom Rob Smith. Simon & Schuster Ltd, 26, 2016.*

create the algorithms was coming from the well of emotions he had kept in check for the past months. He found it in the fury of having failed Tommy and from the injustice of being this close to coming back, only to find the love of his life had been taken away.

It became a dance between the three of them. MI6 and Edward attacking from two sides, keeping up the pressure when one of them had to regroup, decode, and assemble a new part of the program. It felt like they were connected by telepathy, the third participant stumbling and stalling as the day wore on. Several times the lights in the white room were flickering, not that Edward would need light to continue his fight. Peripherally he recalled not having eaten anything since that morning. Or was it already the next day? He had no idea how long he had been in front of the machine, tirelessly keeping up with his unknown partner. He was sure by now that there was only one person at the other end. The execution of the new code had become flawlessly intertwined with Edward's, leaving TRS scrambling for any kind of purchase.

Then Edward stopped. He heard noises from the door. The silence, normally only broken by his tapping on the keyboard or the rustle of his clothes, was now accompanied by some commotion outside the door. The door, which led straight into his room. Meaning the second door on the other side had to be open. Edward looked at the latest code, which was translating to machine language right that instant. It would be the last part necessary to finally close down TRS. Edward stood. He made sure the view to the screen was clear for the other to see. He waited.

The door broke open. A man stood in the doorway, holding up a gun, pointing directly at Edward.

“Carmichael?” the man said, clearly talking to someone in his earpiece.

Edward was calm. His right hand was hovering over the keyboard, waiting for permission to set the very last part of his program in motion. He was taking down TRS for good. His left hand was clutching the top, grounding him in the moment.

The man listened with a small smile forming on his face. He was handsome, Edward thought. The furiousness of the past hours or days was no longer apparent in Edward's face which once again had turned into the blank mask of a man who had nothing left to lose, nothing left to live for.

The man nodded at Edward, looking pointedly at the computer and lowering the gun.

Edward pushed the return key. The lights went out for a short moment, then came back on in full force, blinding Edward. When he had his vision back, the other man had stepped aside, making room for a newcomer.

*Tommy.*

Edward stood rooted to the spot with his eyes wide open. He did not move. He barely dared to breath.

Tommy took a step forward into the white room. His face was as open as Edward remembered it. As he had imagined it. Edward swallowed.

“Can I come in?”

Edward’s nod was almost imperceptible.

Tommy’s face lit up in a smile. Brighter than the sun it felt to Edward. He remained silent, standing absolutely still. He did not give the slightest smile, only his breath was quickening; his eyes the size of saucers.

Tommy stopped in front of him. Edward could feel tears well up. He could not speak. With the utmost concentration, he turned his left hand and revealed the top. No words were spoken. They both looked at Edward’s hand. It was shaking.

Carefully, Tommy took the top and set it spinning on the desk. Edward could not look. He closed his eyes, pressed his eyelids together and listened. He listened to their breathing, the humming from the computer and the faint grinding of the top while it was spinning. Edward made a small sound of distress. The grinding turned into a louder clack. Several clacks, as the top tipped over the edge of the desk and came to lie motionless on the floor.

Edward knelt down as if to collect the top. He still couldn’t look at Tommy.

Tommy had knelt down opposite to Edward.

When Edward after long moments raised his eyes, Tommy was watching him closely. He was waiting patiently, the smile sure and steady. Tommy took the top and offered it to Edward. He took it, brushing Tommy’s fingers, as if by accident.

The touch felt like a lightning bolt through his body. Edward flinched, barely suppressing a sob. It was the first touch of another human being for almost a year. It was too much input, too many senses stimulated in ways which had been dulled for far too long.

Tommy looked alarmed, but remained calm.

“Are you okay?”

Tommy’s soft-spoken words turned a switch in Edward. It brought him back, back to their beginning, back to the here and now. His tears were flowing freely now. But he could not find words, only nod, afraid he might break the spell and Tommy might vanish again.

“Can I hug you?”

Edward wanted to scream out his answer, wanted nothing more than to feel Tommy close, being held securely in his arms. Nothing. The words would not come.

Tommy tilted his head slightly, looking questioningly at Edward. Slowly, Tommy stretched out his arms, inching closer towards Edward who was shaking violently. He closed his eyes. The sounds, the scents, and the warmth closing in on him; it was too much. Not enough. He wanted to throw himself into Tommy's arms. Wanted to close the gap; wanted to run, to get away.

The touch was tentative, barely the whisper of a feather. When Edward stayed, shaking, the touch became firm. It turned into a real embrace, enveloping Edward in Tommy's arms. Strong hands moved gently, caressing his back. Tommy was babbling sweet, soothing nonsense.

On the computer screen the long line of error messages turned into a blank, blue screen. A small cursor blinked.

The command line read, 'reboot'.