



Ivan Perepelyatnik

Before:

Short stories series. Part 1.

Notes from the future.

Иван Перепелятник

The Before Short

Story Series. Part 1

http://www.litres.ru/pages/biblio_book/?art=68496115

SelfPub; 2022

Аннотация

The short stories of the Before series—notes from the future about the technologies of the emerging civilization—tell us about events that take place 100–150 years from now, in the second half of the 22nd century. The events are taking place in different countries all around the world—not even limited only to the Earth—such as Russia, the U.S., Japan, Germany, Luxembourg... and also on an international space station near the Earth, and on the Moon (natural satellite of the Earth). The characters often recur to parallels with the past, that is with the time we are living in, in the beginning of the 21st century.

Содержание

Before: Destiny	5
Before: Journey	36
Before: Politics	50
Before: Weather	89
Before: The Moon	114
Before: Elections	171
Before: Interview	180
Before: The Red Button	221
Before: Taxi	244
Before: The Pill	252

Иван Перепелятник

The Before Short Story Series. Part 1

The *Before* Short Story Series.

A short story series. Part 1.

Notes from the future about the technologies of the emerging civilization.

Before: Destiny

Ayaka

‘I don’t want, I don’t want, I don’t want! I won’t— I won’t eat anything without Daddy! Let’s wait for Daddy!’ Ayaka was as restless as ever.

‘Ayaka, you know it very well: there is a certain way things are done. We always have lunch at 12:30. Don’t you remember what Uncle Manabu was saying?’ Hiromi tried to distract her daughter from the so much detested lunch.

‘No, Mummy, I don’t! What was Uncle Manabu saying?’

‘He said, honey, that the girls that follow their daily routine the right way, that follow what their parents say and do as they say, will always have good health. And as you know, Ayaka healthy girls can spend a lot of time playing with their friends. Surely you want to play with Sano and Ryuu in the afternoon, don’t you?’

‘I do!’ Ayaka frowned, picked the edge of her dress, decorated with pink bear cubs, and lifted it, drawing it onto her head.

‘Ayaka, what are you doing?!’ The mother came up and pulled the dress back. ‘So many times have I already told you, Ayaka— good girls don’t do this! Please, don’t do this again.’

‘Sorry, Mummy. I won’t— And I won’t lunch now either!’ Ayaka exploded with loud objections, only barely not crying. ‘But where is Daddy?!’

‘Good heavens, Ayaka...’

Hiromi approached the kitchen area, separated from the living room by a high bar, and tried to call her husband on her communicator.

‘Hi Keirou! are you coming home? yet long to go?’ she made sure that Ayaka was busy with something and quietly continued recording a voicemail for her husband, ‘Ayaka is refusing to lunch without you. I need you at home. Please call me back, Keirou.’

Ayaka was making her way into her new constructor kit on a sitting-mat in the middle of the living room. The Martian base kit summary read, ‘The Quantum constructor will help your child not only with assembling multi-component engineering systems of a Martian base: development of data analysis skills, systematization and information structuring, creative skills development, and yet more—these are the ways for Quantum to fully uncover your child’s potential. The kit was developed with help of experienced children psychologists and Japan Space Agency specialists. Let your child make a confident step into the new world!’ Ayaka’s straight black hair—reaching her shoulders and tied into a ponytail so that they wouldn’t disturb her playing—for some reason were curling. She was mumbling something to herself while running through the kit details. ‘I wonder whom she’s like with this. Only Grandma had her ends curl too, I guess’, Hiromi was thinking while watching Ayaka play.

‘Aren’t you cold, Aya-chan?’ Hiromi made out some air conditioning sounds in the room noise.

‘No, Mummy, thanks! I feel great in these tighties!’

Hiromi impatiently took the communicator and went out to the balcony to see if she could spot her husband's car.

'Good afternoon, Ms Arai!' a low male voice startled her.

'Good afternoon, Mr Sano!' she greeted her neighbour, a very old man smoking on his balcony, through a barrier.

'Isn't the weather just wonderful today, Ms Arai? only maybe a little too hot. What do you think?'

'Oh, Mr Sano, could you imagine it, I even had to turn the air conditioning on. I totally agree with you.' She spotted her husband's pickup truck coming down the hill in the beginning of the street. 'Sorry, Mr Sano! Keirou is coming back, I need to lay the table for my family'

'Oh, sure, sure! Have a very nice day, Ms Arai!'

'Wow, again like a chimney—at this point the smoke will totally get into the room. Thank God the wind is the other way today. Not only did he lead himself into such a state, now he wants to help the others too,' so thought Hiromi about her neighbour, shaking her head on the way back to the living room.

'Aya-chan, Daddy is back! go wash your hands and we will have lunch.'

'Daddy! Daddy! Daddy!' Ayaka leapt up and began to run wild around the room.

'Ayaka, please, calm down! Grandma Yano will think a volcano is erupting if you stomp your feet so much!'

But Ayaka heard nothing of what her mother was saying. Running up to the front door and having made her way through

the lock, she ran downstairs to meet her father, all the while yelling loudly.

‘So many tourists in the park today. There were like two buses of Americans brought here. I don’t even know where they got so many people to begin with! Can you imagine, Hiromi,’ Keirou was telling her wife, ‘two buses! I do think though it was on purpose—it surely is a lot cooler on Deck 1 than in the city, oh yes it is. They must have wanted to save on air conditioning, right Ayaka?’

‘Keirou, don’t distract her please! it wouldn’t hurt you to eat as well, too.’

‘I think, Daddy, that air conditioning needs to be turned off. They are very inefficient energetically. It’s so hot today! Mummy turned the air conditioning on at home. And she also put some tights on me: here, have a look,’ Ayaka lifted her dress in the same way again—to show her father her white tights covering half of her belly, which had already got bigger since she started eating.

Keirou burst into laughter.

‘Ayaka!’ Hiromi called her daughter as though threatening further action. ‘Pull the dress back at once and eat on! Why are you encouraging her, Keirou?’

‘I am sorry, Hiro-chan. Sorry,’ he smiled while struggling to hold his smile and throwing a glance or two at his wife. ‘Aya-chan, Mummy was right to turn the air conditioning on. Otherwise it would be too hot inside—you see, it is about two

o'clock, and it's like 30° out there right now. And it probably will get hotter yet! Meanwhile, it is cool and nice in here, isn't it? And the tights—you were sitting on the floor, so that's why Mummy did that.'

'Yes, Daddy, I do agree. It is right. It is warm in the tightsies.'

'The lunch is great today, Hiromi. Thank you!'

'I am glad you like it.'

'I like it too, Mummy!' Ayaka supported her father.

'Keirou, do you remember that we need to go to Tōkyō next week with Ayaka?'

'Tōkyō? Why would it be?' Keirou asked, surprised.

Hiromi looked at her husband with some disapproval, 'Next week, Keirou, our daughter is turning six. That means we need to go to the Destiny House.'

'I sure do remember that Ayaka's birthday is next week, right. But I did forget everything about destiny.'

'Well now you do remember—so please, we need to think everything out.'

'Daddy, dad-dy! Look, I'm already done with it!' Ayaka ran up to her father showing him a finished module of a Martian atomic power plant. A lamp on the module was blinking green, indicating that the module was ready to be connected to the main energy network of the base.

'Aya-chan, and when did you open this constructor kit? when did you start assembling it?' Keirou was asking.

'Sorry Daddy, I had absolutely no time for that!' Ayaka

protested, shaking her head from side to side. ‘Mummy gave me a big reading task last night, it took all my time. I only managed to start it today before lunch.’

‘Oh, I see, Aya-chan. Great job! Let’s see what you got there.’

Keirou picked up the constructor kit box from the floor: ‘For children aged 10 to 14’.

Mt Fuji

‘Have you fastened your seat belt well back there, Aya-chan? Let me check,’ Keirou turned back to the passenger seat with his daughter settled comfortably in a child safety seat. He still had that certain mistrust of the autopilot—as well as of all those novel automatic stuff like artificial intelligences, automata, and robots, which had replaced humans in so many spheres of life—Keirou preferred to drive his car by himself. And it was quite a feat to find a manually-controlled electric car. The production of such cars was limited and in the first place they were designed for special emergency services, military, and some other detachments. However, as Keirou was related—even though only quite distantly—to the Emergency Service, being a member of the foresting service of the Fuji–Hakone–Izu National Park, he had had such a vehicle assigned to him by means of a special request.

‘Ayaka, has Mummy told you that next week you are going to Tōkyō?’

‘Yes, Daddy. Mummy said that we are going to the Destiny House. I have no idea what it is, though. By the way, what will

we be doing there?’

‘I will tell you a story, Ayaka, on our way to the park.’

‘Tell it now. Please!’

‘Well, fine. Listen, Ayaka. Once upon a time, long long ago, there was a free ranger in Japan called Mr Fuji. He had no family: he lived alone. He served no-one, obeyed no-one. He had no children, no wife, not even a dog. As the free ranger didn’t need to care about his relatives, he resolved to dedicate all the time he had, his whole life to pursue wisdom from the most experienced, most knowledgeable people around. Mr Fuji decided that he would travel much further than just across Japan: he had the whole world open for himself, as the free spirit and pure heart know no borders and no limits. He decided to meet peasants, military men, sages, merchants, craftsmen, doctors—as many people of different life and craft as he possibly could, to learn from them their way of life, what matters to them, what they believe in, what sciences they learn, how they bring their children up,’ Keirou glanced in the rear-view mirror at Ayaka, who was attentively listening and looking at him from time to time. ‘Mr Fuji travelled so much, visited so many countries that people started composing legends about him. And the tale of his travels spread even quicker than he would go himself. When the wanderer reached a new place, one where he had never been before, the people he would meet there would already know everything about his pursuit, the reasons of his coming, and all that he wanted from them. Some were unwilling to share

knowledge with him: they thought it might come to hurt them. Indeed, Mr Fuji had already learned so much, been to so many different continents, met so many learned people... they were afraid he would come to use his newly-gained knowledge to get hold of their houses and riches, to conquer their lands, to drive them away. Once, in a southern land, the free wanderer got caught by barbarians who demanded him to lay all his secrets bare. Mr Fuji was genuinely surprised, "What kind of mysteries do you want to learn about?" he said. "I have no mysteries. I am ready to tell you all I have learnt." "Then do tell!" demanded the captors. And so he started his story: "During my wandering I visited many wonderful and miraculous places, and met many wise, open, and honest people. They told me so much about their achievements, about their skills and experience, that in the very beginning of my travel I realized that I had to continue not with the goal to learn all those wise peoples knew—for I would be unable to learn even an insignificant share of what they knew—but because when I would some day come back to my native land, the story of my life would serve as a proof that the life that we have been granted is an invaluable vessel. In the beginning it is empty, and what you fill it with and how—what the contents of your life will be, what would be your true goals and aspirations, and whether you would be worthy of your ancestors—all this depends on you, and on you alone. The secret for me to share with the world is simple: we ourselves are responsible for our destinies, we ourselves choose a path to follow. The wisdom of

gathered knowledge is a priceless energy, which everyone can obtain and use for others' sake." The barbarians did not believe Mr Fuji, they thought he was deceiving them, as the secret he had just told was absolutely worthless, had no profit, and there was no-one it could be sold to. They left the free wanderer alone without food or water in a deep well and told him, "When you can fill this hole with your stories in such a way that your so-called priceless energy of life would lift you up to the ground, only then would you become free. Or else you can tell us the truth and uncover the secrets you are currently keeping—then we will set you free." But the wanderer had nothing else to say, and so gradually, day after day, he saw his life fade. When Mr Fuji became one of the earth spirits, he roamed far and wide in search of a place to dwell. And so he came back to Japan, and found such a place for himself: such became Mt Fuji, a vessel of eternal wisdom, to be filled by his successors.'

Having made a pause, Keirou continued, 'This story was told to me by my father—your grandfather. Did you get it, Ayaka, what it was that Mr Fuji did?'

'I got it, Daddy! he settled in our volcano. Now I know why you are working in the park—you are guarding Mr Fuji, so that his wisdom wouldn't get lost.'

'Very well, daughter. It is important to remember that we choose our life course for ourselves—what and when we should do, where and with whom we should live, how we can benefit our society, our country the most. Remember, Ayaka, that your life

too is a vessel. Just as Mr Fuji's, it can be filled with knowledge for everyone's sake. Or else we can live our life in vain, scattering only rubbish on our way.'

'Yes, Daddy. But there was one thing I didn't get: why was it that the barbarians didn't believe Mr Fuji's words? why, Daddy?'

'Ayaka, many times people don't see the most important things they already have in their hands. Often we think that the truth is too difficult, and only having learnt it—having uncovered this great secret—do we realize what it really takes to be happy.'

The blue truck drove up to the Fuji–Hakone–Izu National Park main building, surrounded by crowds of tourists—apparently, they had just got off the long row of buses parked nearby. Sun covers above the main building entrance—which harboured a Mt Fuji history museum, some lecture halls, a forestry service, a medical section, and the park administration—made the hot a little more bearable, but it was still very notable. Even the leaves on nearby trees got dimmer, losing a bit of their juicy shine.

'You know, Ayaka,' Keirou said to his daughter, 'you should probably rather study at home today. Look how many visitors there are here today. I guess I will have quite a restless day.'

Keirou was critically examining the tens of people crowded by the central entrance to the National Park. The tourists wanted to get to one of the observation decks on a side of the volcano as soon as possible—and for a reason, as it was likely to be much cooler there.

‘If you go with me, Ayaka-chan, I will be constantly distracted, I will be worrying about you, and so I might miss something important. It won’t be good, will it? so we have a deal, Ayaka, right?’

‘Right, Daddy,’ said Ayaka, barely holding her tears.

Keirou approached the rear passenger door, where Ayaka was sitting to check the safety belts in her child safety seat.

‘Oh, and Mummy hasn’t got your tights off either... this way you will surely overheat here,’ he hugged his daughter’s shoulders and kissed her on the forehead.

‘Shin, would you please bring Ayaka back home and get back here?’ Keirou gave an order to his digital assistant. ‘Tell Hiromi to meet Ayaka near the house and to see her in. When you come back, please park on the staff parking lot. Did you get all of it, Shin?’

‘Sure indeed, Keirou. I will bring Ayaka back home and come back to the National Park main building,’ Shin confirmed receiving the task.

‘Ayaka, everything all right?’

‘Yes, Daddy. It’s only that I want to go with you!’

‘Sorry Ayaka-chan, but not today. Next time, I promise.’

Keirou saw the slowly accelerating blue car leave. The bare peak of Mt Fuji was visible through the leaf cover. ‘Even the snow cap can’t bear this heat, it all melt.’ Making a deep breath of heavy hot air, Keirou walked to the staff entrance.

Ozzie

‘Good Lord! My God! Is there anything at all that you can do normally?! Look at the hole you’ve left here! wow, this block is really worth nothing now. Throw this away immediately! just what kind of work is this, I wonder... that’s no work! that’s some half-assed junk, for all I can say! 100% pure shit, nothing more!’ Jordan got hold of the keyboard and, banged it loudly on the table with anger. A number of keys got loose and flew into his face. ‘Whoa, damn it! damn morons!... get out everyone! everyone out of here! Out no-ow! I am saying, GET OUT YOU DAMN MORONS! I-DI-OTS!’

Lizzie got up from her table, tears in her eyes, picked up her bag, her phone, and went to the exit. Everyone else—not a word spoken—left too. Silence ensued. Only a slight sound of the air conditioning system went on actively filling in the void with an image of office life.

‘Morons! Idiots! Damn it!’ Jordan picked up the broken keyboard and threw it into the wall. Then he came up to the scattered keys and crouched, holding his hands to his head.

A couple of minutes later Jordan got his phone from a pocket of his loose jeans and dialled Beg Shauncan: ‘Hey Beg. That’s me. I got fired up a little here.’

‘Oh wow! who would have thought!’

‘Not funny. I have to face these dumbass morons day after day, all day long. We could have already started the project, were it not because of them! you see?!’

‘Jo, your *getting fired up* costs us millions... but that’s not all

yet! the worst is that the best coders we hire for you refuse to work with you! what shall I do about this, Jo?"

'But they are just dumb idiots! you do get it! they don't work—they do nothing but get in the way! that's all that happens in this damn office! they only slow the thing down! they do nothing to make it quicker!'

'Well, it's fine, Jo. I see. We'll make it work. Don't overthink it. Let's make a deal: get some rest. At least today. Please. You are tired. You get so worked up about nothing. Go home. Have a walk. Watch a film. Should I arrange for some girls to visit?'

Jordan sniffed into the microphone, 'Fine, Beg. I will. I will go home. Sorry. No girls, please. I have a dog.'

The two shared a laugh.

'Great then. Deal. Have some rest, please, Jo. See you tomorrow.'

'Bye, Beg.'

Jordan stopped in a parking lot in front of a row of cars. Each parking space was marked with yellow JB letters.

'The weather is great today. No rain forecast. The clearance of this car is low. It holds well to the road. The acceleration is acceptable. I shall air my head,' reasoned Jordan while sitting down into a roadster. The Porsche reacted to a *Start* button pressing: the control panel lit up. He pressed some more buttons: and there was music, and the tin roof folded into the boot. The main screen read, 'Please indicate the point of destination.' Jordan pressed *Manual control* and kicked the accelerator pedal

into the floor.

Driving to his house's gate, Jordan turned the music off and took a deep breath. 'Looks like I calmed down a little. Beg's right. I do need to have some rest once in a while.' Having chosen the *Parking* option, Jordan took out his phone and made a note, 'Think what to do with dumb employees—might need an intermediary'. The car slowly passed by the main entrance and stopped in front of the garage gate, waiting for the lifting door to open. Jordan opened the car door and got out. The autopilot system started making sounds of unrest, and *Please specify further actions* appeared on the screen. Jordan, on his way to the front door, chose the *Parking* option in the Porsche app.

'Good afternoon, Jordan! I didn't expect you so early here.'

'Good afternoon, Sarah. I didn't expect myself here either—apparently I will have some kind of a holiday today. I hope I won't disturb you too much.'

'I am very glad you came home earlier today—it's been a while that you have needed some rest,' Sarah said with a kind smile.

A dog's barking followed. As soon as she heard Jordan, Ozzie ran to see him through the whole house. Beating her sides with her tail, she rushed into her master's hands.

'Ozzie! you my good girl! good! good dog!' Jordan sat stroking and patting his bull terrier, happily wriggling in his feet. 'You my cutie! time to get you on a diet, Ozzie. Look how tight your sides have got.'

For a moment Jordan thought of asking Sarah if she was

following the indicated diet for Ozzie, but then he realized that this question would have compromised him: how could he imagine the very possibility of the indicated course of actions in his house not being followed.

‘Sarah, today I will have my lunch outside.’

‘I will get it ready in a moment. I need some fifteen minutes.’

‘Very well, thank you.’

Jordan went through the living room to the terrace windows. Ozzie followed him at his foot, wagging her tail in a pleased way and glancing at him every few seconds—making sure that he was still there by her side. ‘The weather’s quite rough today,’ observing the waves, Jordan doubted the feasibility of his idea to have a lunch outside. He looked at the windmills, located as far as possible from the house, so that not to spoil the ocean view from the living room and the terrace. ‘The rotation speed is higher than usual. The wind is too strong and it looks like it can still rain in a while.’ Approaching the end of the living-room glass wall, he pressed a button—and immediately a breeze hit his face, as though it carried all the energy stored in the deep ocean. Running out to the open area of the terrace, Ozzie began to bark. ‘Well, five minutes or so and we are frozen here for sure.’

‘Ozzie, come here! come here, my girl!’

By the glass barriers and still barking loudly, Ozzie was looking at her master. ‘Well, let’s see what is so interesting that you saw there.’ Jordan came up to the dog and looked around. A strong wind was hitting his face with cold blasts. It seemed

that the splashes of breaking waves down below the cliff were reaching him.

‘Let’s go home, Ozzie. Let’s go.’ Jordan patted his leg and went back to the living room. The dog, waddling slightly awkwardly, followed him there.

‘Sarah, I am afraid the idea of a terrace lunch is not working out. Please bring everything to my first-floor study.’

‘I sure will, Jordan’, the assistant’s voice came out of the watch on his wrist. He appreciated a lot Sarah’s approach to her job, and he did trust her. As much, sure, as Jordan could trust anyone at all. Even so, the fact that he was ready to leave Ozzie with Sarah for a week when going away on a business trip spoke volumes about their relationship. Earlier he would take the dog with him on all trips, which naturally caused a lot of issues and slowed the work process considerably. It was necessary to observe all kinds of quarantines and to comply with all the varied requirements for animal transportation that applied in different countries. He entrusted all house keeping to Sarah. She was the one in charge of organizing and overseeing house repairs, maintaining a fleet of cars, and even of buying his underwear. Jordan set up a separate account for housekeeping, the money in which was totally under Sarah’s control—she would also hire various contractors to maintain all the environment where Jordan led his life. He appreciated—no, he greatly appreciated Ms Estrada’s work and he paid generously for it. Six years after she got the job, she brought over her whole family from Mexico to the States.

Ozzie lay on a leather couch by the window while Jordan sat down at his desk and turned the TV on, choosing a news channel—just to make the room less empty.

‘Did you get cold out there? Ozzie?’ The dog was trying to get her nose under the nearby plaid. Jordan walked up to her and covered her. Sitting down next to the dog, he started petting her muzzle. The black spot around her black eye was suggesting an uncommon coloration: on one side, the left side, she was completely white—and the other side she had it all covered with black spots, just as well as her right paws in black socks. ‘An interesting mutation,’ noted Jordan to the breeder upon seeing the energetic active puppy for the very first time.

‘Oh Ozzie, how quickly flies the time! we’ve been living in this house for eight years already. Soon our big project will be done, my girl. Who knows, what we shall be doing afterwards.’

Ozzie was happily snoring, her muzzle next to her master.

Tōkyō

‘Ayaka, we’re leaving in five minutes! are you ready? everything you need too?’ shouted Hiromi from her bedroom.

‘Yes, Mummy, I am ready.’

‘Ayaka, what’s that?! why are you still not wearing the dress I gave you? why are you in your tights? we have no time at all! the train will be at the station in twenty minutes. Please, get your tights off quickly and put your dress on.’

‘Mummy, I did everything the way you told it last time: the air conditioning is on, so I am in tights.’

‘Ayaka, did you get what I was saying—get your tights off and put your dress on! please hurry up! otherwise we will miss the train. We’ll already have to call a taxi to the station.

In ten minutes Hiromi and her daughter were standing on the Tsuru station platform, waiting for a high-speed train that would bring them to the capital city centre in twenty minutes. In Japan, the idea of building underground high-speed expressways was rejected due to the high risk of regular earthquakes, which although possible to compensate with use of some advanced engineering technology of our days, would be simply too costly to maintain. Japan Rail focused their efforts on creating a ground-level system of high-speed trains. Its main working principle is similar to that of the underground expressways: levitation, based on superconductor magnets. As there is no physical contact between the surface of conductive rails, which create a strong magnetic field, and the train, friction can be avoided altogether. Taking into account the unavoidable limitations of the ground level, such as train body air drag, the maximum speed values of Japanese trains could not reach the levels set by the newest transport infrastructure in other parts of the world. Nevertheless though, the artificial intelligence based on the quantum computing power of the PAX system allowed the engineers to increase the reliability and efficiency of the Japanese rail transport system.

On the platform, where a dozen people had gathered together with Ayaka and Hiromi, rang an announcement, ‘Dear

passengers! the train No. 3346, Nagoya–Tōkyō, in five minutes will be stopping at the Tsuru station at the second track. The stop duration is limited and will last no longer than one minute. Please make sure to get ready for boarding in advance.’

‘Mummy, look, what a cute train! why does it have such a long nose? Mummy?’ Ayaka was gesturing quickly, greeting the swiftly approaching train.

‘Let’s take our seats and I will explain you everything there.’

‘Sure, Mummy.’

‘Ms Arai,’ a steward approached the newly-boarded passengers as soon as the train started accelerating, ‘I greet you on board the Japan Rail train. Would you like to order anything?’

‘Thank you very much. Could I please have a bottle of still water? It is very hot outside today.’

‘It is good that at least in Tōkyō it is a little cooler than yesterday. Your daughter will feel better there,’ continued the steward while passing a bottle to Hiromi.

‘And we are going to the *Destiny house*!’ Ayaka was curiously studying the steward’s uniform.

‘This is sure to be a great day for you! I have been to the *Destiny house* so long ago, but I still remember all about how it was. Me as well, young lady, I went there together with my mother. It was fifty years ago at this point, and I still remember everything. Congratulations! What is your name?’

‘Arai Ayaka, Mr Steward.’

‘Here, Miss Ayaka, please have this gift from the Japan Rail

company! and receive our congratulations on this very important day in your life!’ the steward handed a long cardboard box, which had something roll around inside.

‘Thank you very much, Mr Steward!’ Ayaka slipped down from the seat and made a bow.

‘Very well, Ayaka. Let’s see what Mr Steward has given you,’ Hiromi helped her daughter unwrap her new gift.

In a colourful, vividly decorated souvenir box there were a colour book, a set of felt-tip pens, a badge, a hat with the JR logo, and an authentically-styled paper scroll, rolled into two coils on two wooden sticks.

‘What’s this, Mummy?’ Ayaka picked the scroll by one of the sticks, while the other one fell out of the box and rolled down the carriage floor, unfolding the whole scroll.

‘Right, Ayaka, let’s get it all back together quickly. Roll it back in,’ said Hiromi, unamused.

‘I didn’t mean to.’

‘It’s fine, never mind. Please roll it back carefully. It is the history of Japan Rail company. Read it, Ayaka, and then you’ll tell me what it is about.’

‘Sure, Mummy!’

‘I hope there will be enough to read until we reach Tōkyō. Oh, I wish it were,’ Hiromi picked up the communicator and started scrolling through the news feed of *House*, a social network. She reached the *Haute couture, explained in simple words* section...

‘Mummy, I finished,’ Ayaka started rolling the scroll back in.

Hiromi looked at her daughter, slightly surprised, ‘When would she have the time,’ she thought, ‘to read through all of that?’

‘Right, Ayaka. Tell me please what it is about.’

‘This is a story about how Japan Rail started building new high-speed train tracks across the whole country in 2059. They also tell about the PAX system and how it helped make the trains faster yet. Mummy, and what is the PAX? tell me more, please.’

Hiromi found an article about the PAX on her communicator and gave it to her daughter, ‘Here, please, read, Ayaka. I sure won’t be able to remember all the important details. Here you can learn a lot more.’

Hiromi looked out the window. The train was swiftly passing by small towns, the existence of which could only be deduced from the sound barriers installed to protect the dwellers from the noise of trains passing by at 600 km/h. Here and there between the hills—somewhere seemingly soft and yielding because of the green tree carpet, somewhere dangerously sharp with grey-brown rocks, reminding of a seasoned predator’s chisels—majestic stood Mt Fuji. This year it had no snow cap because of the unusual for the Eastern coast of Japan heat that came about in August. Hiromi did like looking at it, one of the main symbols of the country—yet she couldn’t help being jealous, resentful of the fact that it was taking nearly all of Keirou’s time leaving her with so little, and that was almost bringing her to desperate tears from time to time. A little animal park, a number of observation decks,

meteorological and seismological stations, a museum, an infinite flux of tourists—requiring several hundreds of employees in high season—all that demanded attention and care. ‘Keirou is finding time for them, for Ayaka, but—unfortunately—not as much for me... well at least the article is long enough,’ thought Hiromi and tried to get those unpleasant thoughts away by immersing herself in an article about the summer 2167 holidays season trends on her tablet.

‘Mummy, I’m done!’ Hiromi looked at her daughter, ‘How could it be?!’ but showed not a thing.

‘That’s great, Ayaka! please tell me what you have read.’

‘So apparently the operation of artificial intelligence on the basis of a distributed quantum computer system, PAX, was started back in the middle of the last century, in 2053. The main developer of the system, Jordan Bensock, is a genius programmer and engineer from the U.S. He is still alive. Today Bensock is the richest man on the planet. His personal fortune exceeds one trillion dollars. Can you imagine, Mummy, Mr Bensock could help make refurbishments in Grandma Yano’s flat! Mummy, let’s write him about Grandma, let’s ask him to help her!’

‘We will discuss this a little later, Ayaka. Have you understood, what is— well, how the PAX actually works?’

‘Yes, Mummy. It works just like our brain, like a human brain. Just that when PAX artificial intelligence is operating, it’s more like many many people would be friends.’

‘Sorry, and why friends?’

‘Because when we are friends, we always do things together. When PAX is working, it’s almost like many people—many minds—work together on a same task.’

‘Very well, Ayaka. Do you remember, why we are going to the capital today?’

‘Sure, Mummy. We are going to the *Destiny house* to learn what I will be doing in the future.’

‘Let me please tell you how everything worked earlier, how your grandparents lived.’

The traditions and the culture of our country, Ayaka, are such that for our society the concept of mutual respect—to each other, to the family, to those older than you—is crucially important. In our country it is important to understand that the work that we all do, everyone’s work, is important for everyone. We all are constantly making a contribution to the common good—to the common success of us all—and that we are creating new opportunities for the society—for us all. Before, when people were choosing their life path, they would mostly seek inspiration in their families’ history—so that, usually, the children would continue their parents’ job. A family owning a textile manufacture over tens—or even hundreds—of years, a small grocery, a publishing house, a dynasty of doctors or journalists, and a whole lot of other similar examples—children would often follow in their parents’ steps. And it is not because that was simpler or easier to get going: the problem had many sides to it. A human life used to be much shorter before. Now

we live to two hundred years, and before only singular people would reach an age of one hundred years. People had to start developing the skills they would later use for work from a very early age so that they could potentially reach something in this short period of active life. The right to make a mistake—and to be able to start anew afterwards—used to be a privilege of a very limited group of people, and these people did pursue self-fulfillment indeed, not held hostages by everyday life problems. The majority of people, however, had to make a decision as soon as possible in their youth—to find themselves, they would say—as early as they could. And if life had it such that the choice, made some time ago, did not bring about the expected result—if the person did not succeed in life—it would often already be too late to begin anything new. In a competitive world as it was, it was very hard to make your way through. And sometimes there were families that tried to program their children's lives since the very early age. For instance, some parents would send their children to a tennis school at the age of 5, hoping that it might turn them successful at some tennis tournament some fifteen years later. And sometimes it did work—the children would become prominent tennis players, or golfers, or such.'

Hiromi looked at her daughter, 'Ayaka, do you understand what I am talking about?'

'Mummy, as far as I get it, before people would die much earlier and they didn't have enough time to do their job the right way.'

‘Because?’

‘They didn’t always make the right choice when they were children.’

‘So it is, Ayaka.’

‘So Grandma started breaking her back when she was born in our family?’

‘Grandma took on her father’s job, being a rice farmer in the fields that used to belong to our family.’

‘Daddy says Grandma would break her back from morning to evening.’

‘Ayaka, Daddy meant that Grandma worked a lot—in the field as well—helping to harvest the crops.’

‘Mummy, is it that Grandma also made a mistake when making her decision?’

‘No, dear. Our grandparents did not have the kind of possibilities that we have today with the PAX. Grandma was helping her family, taking on her father’s job, her grandfather’s, and so on. Grandma didn’t have a choice there, Ayaka. But you do have a choice. The PAX prepares high-probability scenarios to forecast in which fields you have the most chances to succeed and to do the most for the society—having access to the entirety of the world’s knowledge, and also having studied carefully your possibilities and intellectual potential. Do you see it, Ayaka?’

‘Yes, I do. The PAX will tell me what to do.’

‘The PAX will give you options. It will suggest you the fields in which you could do your best. It knows who, when, and where

is doing whichever job. It also knows what issues are important now and which ones will be so in the future—by analysing the datasets it has—and it creates and carefully studies your personal profile. By getting all this information together into a strictly structured picture, into a single system of interdependencies, the computer is able to offer you a precise answer to one of the crucial questions in our lives—the one of *why we are here in this world*.

Hiromi was looking at her daughter, ‘I wonder if she understands what I am trying to tell her...’

‘But the final decision is up to you. Whatever you will do in your life, whichever way you will choose, the choice is yours, and yours alone, Ayaka.’

Pax

‘Look Beg, there’s one more thing that I’ve been thinking about,’ Jordan was going on with a weekly meeting on current issues. ‘I would like to work from home for a couple of weeks, so I don’t think I will be there in the office. I feel the solution is already at my fingertips, you see? I just need a little more to reach it. It is nearly there in my hands, so I don’t want to be distracted by quarrels with coworkers. And the other guys here will feel easier in my absence. At least for a while’

‘I think it is a good idea, Jo. A short break in the “Jordan Benson and Co.” team will totally benefit everyone. I am “for”, my friend.’

‘You might have held it at least a little bit,’ they both smiled,

‘or like this it even is a bit offensive.’

‘Right, right. Anything else you’d like to discuss?’

‘Yeah. I will send you a list of what I need to work at home, here to the lab.’

‘Sure, we’ll do everything.’

‘Then that’s all. Or well— please tell the guys I am very sorry for having burst like that. Will you?’

‘Yeah, sure, Jo. I guess they understand you anyway though.’

‘And make sure to tell them that doesn’t make them any less dumb idiots!’

‘Oh Jo, I nearly forgot.’

‘Right, please go on.’

‘On Wednesday we have a video-call planned with a big investor from the East Coast.’

‘And?’

‘Jo, we need you there. No-one can represent our project as well as you do. And they will be flattered by seeing you there.’

‘You know though just how much I like all these rounds and finance issues.’

‘I do, Jo. But you do understand it’s the right thing to do, don’t you?’

‘Sure. I’ll see what I can do. Please send me the details.’

‘I will! Let’s keep in touch.’

Ozzie was lying in her favourite spot, on a leather couch near by the window, and from time to time she was checking whether her master was still there.

‘Jordan, you ask us for one billion more. Would you please tell us about the current stage of the project?’ The participants’ glances were carefully studying Jordan from a big panel in his study.

‘First of all, gentlemen, we were never intending to ask anything from you,’ continued Jordan. ‘Not me, that’s for sure. What we are ready to offer you is to take part in our project. It will—I shall not be afraid to sound trivial—allow you to become infinitely richer. If you want to—please invest your money. If you don’t—that’s fine: I don’t believe we will get troubles with funding either way. Next, even if I do start telling you how our working process is organized, what we do, how we do, and what purpose exactly each stage serves, you will understand nothing in it—and this includes the so-called experts you hired. So please allow me to give you some advice—get rid of them. It will only benefit you financially.’

‘The idea that Jordan is trying to get across, gentlemen, is the following:’ Beg turned his microphone on. ‘We are interested in working on with your foundation and sure enough we are ready to inform you on the current stage of the project from time to time. Isn’t this the very reason of our meeting here today. However, the field in which our company specializes is too specific for us to be able to present our work to you in a precise fashion. That’s why we will have to limit ourselves to some general information, not going into excessive details—I agree with Jordan, they will clarify nothing at all.’

The foundation representative continued after a brief pause, ‘No-one on our side is expecting friendly meet-ups with you. But we would still like to insist on staying within certain limits while communicating. Furthermore, we are talking about significant investment, and so I hope you will agree, gentlemen, that we are well in our right to understand what we are investing in and what for. Jordan, would you please tell us the general information on the project in such a way that would let *even us* understand what it all is about.

‘No problem! Beg and our team have prepared a couple of slides which we are ready to demonstrate,’ Jordan began the shared presentation for the meeting participants.

A video appeared on the screen, showing a lab in the main campus of the IQC. There was a big black cube in the middle of the room, and on each of its faces there was a brilliant shiny IQC logo. The camera was showing the cube from all sides, flying around it.

‘Here, please, have a look at our prototype of a fully functional quantum computer,’ Jordan extended his hand toward the screen and stopped in that position.

‘That’s just amazing, Jordan! my congratulations! what a success!’ noted the representative after another pause, not even attempting to hide his being sarcastic. ‘You keep having fun, Jordan—at the very least I am very happy that you are in such a good mood today. Yet, what is all this about? What is this cube? What stage is the project at? Let’s get to business.’

‘Dear colleagues, this precisely is the very business we have!’ Jordan went to the next slide.

A silhouette of the planet Earth was seen on a background of deep-space black and the uncountable stars of the Milky Way.

‘So, Jordan, what is this slide supposed to mean? are you trying to suggest that we tackle the processor block cooling problem by using quantum computers in space?’

‘I owe you an apology. Your structural understanding of quantum computers—wide exceeding my expectations—does have a serious foundation,’ Jordan burst into laughter.

‘Your attention flatters me, Jordan. Thank you very much. But would you please still tell me what the idea is here?’ The investor, understanding that this hopelessly libertine genius engineer could only be dealt with by paying attention to the meaning of his words only—and disregarding their external shape altogether—was surprised with his own readiness to overcome his pride.

‘I want to say,’ Jordan went on, ‘that we can do everything. That’s my recommendation to you—an investment strategy where one simply cannot lose—and, moreover, I am ready to uncover it to you free of whatsoever charge. So please, whichever sum that your foundation decides to invest into the company’s development, whichever! will give you at least a multiple profit—make your decision, dear gentlemen.’

After yet another awkward pause Jordan summed up, ‘Gentlemen, if you have no further questions, I would like to continue my work. Thank you very much for your attention. Beg,

thank you and see you.’

Jordan pressed the red button and disconnected from the video call.

‘What a bunch of greedy morons! don’t you agree, Ozzie dear?’ The dog reacted to her master’s voice by leaping down from the couch and running up to Jordan, happily wagging her tail. ‘Let’s go for a walk, shall we? a walk!’

Before: Journey

‘Good afternoon, Ms Vega. Welcome aboard. Your seat is on the right near the window, row eleven, please.’

‘Hello. Thank you.’

Elena walked down the narrow aisle between the seats occupied by passengers. Next to her window seat, there was a young guy sitting, an African American, in a black cap with some letters embroidered on it, in a silver leather jacket.

‘Good afternoon. May I pass, please’, pointing to her place near the window, Elena turned to the young man.

‘Hi’, not looking at her, the guy got up and stepped out into the aisle, bending his head so as not to hit himself.

Elena barely reached up to his chest, no higher. ‘My God, how tall and skinny ... Maybe he's a basketball player,’ making her way to her seat, Elena felt a rather strong smell of toilet water. ‘And it will be like that all the way long...’

Despite a large distance between the rows, the guy's knees almost rested on the back of the front seat when he took his place.

‘Good afternoon, ladies and gentlemen. Welcome on board the United Boeing-7000 airliner. We are glad that you have chosen United for your trip. According to the results of the annual independent survey, United ranks first among American air carriers in flight safety over the last 25 years. The safety of our passengers is the first priority for our team.

In fifteen minutes our plane will head towards the runway. The flight from Madrid–Barajas International Airport to Washington–Dulles International Airport will take one hour and thirty minutes.

Please make sure that all your hand luggage is on the shelf above your seat. We ask you to check that your seat belt is fastened and tightened up to fit. We ask you not to leave your seats during the entire flight unless you need to and remain fastened during the entire flight. In a few minutes we will offer you some refreshments. We wish you a pleasant flight.’

Having listened to the announcement of the airliner staff, Elena took another look at her fellow passenger:

‘My name is Elena Vega,’ she held out her hand to the neighbor, inviting him to get acquainted. ‘Bosch Yunken,’ he said, not hiding his disappointment with being distracted from playing on the communicator.

‘Oh, I’m sorry, I’m distracting you.’

‘Well, yes. But now it doesn’t matter already.’

‘Coming back home, Bosch?’

‘What makes you think so?’

‘The translator,’ Elena pointed to the headphones in her ears.

‘They don’t translate, they only broadcast your voice.’

‘Ah. Well, yes, home.’

‘And I’m going on holidays.’

‘Yeah, congrats. And what are you going to do on the east coast?’

‘Your country, Bosch, has such a rich history. I don't think I'll be bored.’

‘Ah, got it. That is, are you a specialist in museums or something?’

‘You could say that. My main goal is Baltimore.’

‘Well, and what have you forgotten in the middle of nowhere?’

‘The life of the great poet and writer Edgar Poe suddenly ended in Baltimore.’

‘Who is this? Doesn't ring a bell.’

‘He lived a long time ago, Bosch. No wonder you haven't heard of him.’

‘Ah. Well, okay.’

‘I'm a big fan of Poe. I am planning to visit his grave, the places he used frequented. I would like to see for myself where it all happened.’

‘What happened?’

‘You know, there are some inconsistencies in the versions of why he actually died. And not all of them flatter him as a person. So I'm planning—rather, I hope to clarify something about what end his hard lot brought him to.’

‘Was he a member of some kind of group or something? Some kind of a gangster?’

‘Not at all. He lived in the nineteenth century. His literary career and personal life were quite ambiguous. Things were difficult for him...’

‘Yes. Well, good luck to you, Elena.’

‘Thank you, Bosch! What were you doing in Madrid?’ Bosch looked at Elena with a kind of detachment. ‘I’m sorry, Bosch. I won’t distract you anymore.’

‘OK.’ Bosch continued playing with the communicator.

Looking at the endless blue of the ocean in the window, her eyes not setting on anything, Elena noticed Bosch returning to his seat.

‘Bosch, I’m sorry, may I ask you for advice, please. Do you mind?’

‘Come on.’

‘I didn’t order a transfer to the hotel. I thought I’d get there on my own. Can you tell me the best way to get to Baltimore from the airport?’

‘I can. It will be better and faster on the shuttle. 5 minutes on the road.’

‘Oh, I see. That’s great. I booked a room in a hotel in the city center, on the Patapsco. The station is in the center of the city. Do I get it right, Bosch?’

‘Yes, as far as I remember.’

‘Yeah. And that is just what I do. I’ll take your advice and go by shuttle. Thanks, Bosch.’

‘Anyway, I live there nearby. I can give you a lift to the hotel.’

‘Oh, come on, Bosch. I’m sorry to have bothered you. I don’t want to be a burden.’

‘I wouldn’t offer it if you were a burden.’ Bosch was looking at Elena with the same blank or perhaps a little bit stiff expression

on his face.

‘I’d really appreciate it, Bosch.’

‘OK.’

Elena came up to the automated security and customs control desks, where she had to answer a number of standard questions.

‘What is the purpose of your visit to the United States of America?’

‘Tourism.’

‘Please give some details on the specific purpose of your visit.’

‘I am planning to visit a number of historical sites related to Edgar Poe’s life in Baltimore—this is my main goal. And, of course, my program includes a trip to Washington. I hope to see all the iconic sights in the capital, from the White House to the National Gallery of Arts.’

‘How long are you planning to stay in the U.S.?’

‘One week. I have a return ticket for Friday, end next week.’

The frame around the perimeter of the rack lit up green,

‘Welcome to the U.S. You may pass on.’

Elena noticed a tall black man in a silver jacket in the airport lounge.

‘I started worrying that you’d changed your mind, Bosch. You have such a remarkable appearance, it helps.’ Elena looked at the braids. ‘You are very tall. One can easily find you in such a crowd.’

‘Can we make it less formal. Eh?’

‘Good. I’m for it,’ Elena smiled. ‘Could we have lunch

together? I'm a little hungry. And you?

'OK.'

'Are you in no hurry now?'

'There is time for lunch. Don't you worry, Elena. If I was in a hurry, I wouldn't be here anymore.'

'Great.'

'So anyway, Bosch, may I ask you what you were doing in Spain?'

'I have a factory near Madrid. Met with new leather suppliers. I had to check on the samples and see my managers.'

'What's the leather for, Bosch?'

'My company specializes in leather jackets.'

'Wow, that's great! I see, your jacket is very cool!'

'Well, at least, it's different. It's important to me. To make my things different. And what do you do for a living?'

'I am an accountant in a small manufacturing company. The factory does plastic windows, doors and the like.'

'Sounds boring.'

'I love my job, Bosch.'

'It's important. I agree.'

'How's your burger?'

'Delicious, Elena. Thanks for asking.'

Sitting in a restaurant on the first floor of the airport, Elena and Bosch slowly continued with their lunch, moving on to desserts and coffee, paying no attention to a series of service announcements lost in the infinitely large international terminal

of Dulles Airport. Everyone around was hurrying on business. Parents with restless children were obviously aiming at a resort vacation, judging by the bright shorts and the same cheerful shirts the whole family was wearing, which did not quite fit the beginning of the autumn season in any way. Formal business suits, whether of businessmen, lawyers, or maybe politicians, were supposed to emphasize their important social status and gave an unambiguous answer to everyone around—we are busy people, we should not be distracted by any trifles. A couple of young girls, carefree and not hiding fatigue, sailed towards the exit from the airport, seemingly after a long flight.

‘Are you ready, Bosch? Let's go to the hotel?’ Elena blushed.

Bosch looked at her:

‘Well, let's go.’

Bosch's personal capsule took passengers to downtown Baltimore via an underground highway in ten minutes. After walking around the city, the couple finally arrived at a hotel on the Patapsco River.

‘Will you come up?’ Elena asked without apparent embarrassment.

‘OK.’

The Bell

‘Hi! You are looking great, honey! Well? Tell me! I can't wait to hear your story,’ entering the factory office, Susan began to question her friend straight from the doorstep.

‘I don't even know where to start, Sue’, smiling broadly, Elena

handed her friend a small box wrapped in a stars-and-stripes paper.

‘What is it, dear?’

‘A gift for you. A small souvenir from America.’

‘Wow! We love some surprises,’ Susan shook the box. ‘What is it there? Tell me!?’

‘Open it and have a look.’

‘Well, okay, then’, the friend started tearing up the package.

Having dealt with the box finally, Susan almost screamed.

‘Ah-ah!, isn’t it charming! Oh my God! What a beauty!’

‘Quiet, please! We’re going to be fired straight away!’ hushed her Elena.

‘Not both of us together! Someone has to do the job! Ah? That’s it!’ reasonably objected Susan, carefully examining a small bell.

‘It’s from the Washington Cathedral.’

‘Elly, thank you so much! It’s so beautiful! My collection will soon deserve a personal exhibition—“Bells from Cathedrals of the World”! Would you come?’

‘Well, of course. For sure. Just get me, Sue, dear.’

‘I got it that everything was fine with the cultural program’, Susan carefully put the bell down on the table. ‘Is there anything else you could tell me?’

‘I’d say so, you also need to use the services of this travel agency. Su-san, this is something unimaginable. I had never ever had such impressions from trips...’

‘Elena, Susan, good afternoon,’ greeting the ladies, a tall dark-skinned man dressed in a business suit and tie entered the office. ‘What’s the status of the report? Elena, I see you’ve had a good holiday. I am very happy for you. Now, as they say, recharged and back to work. The report for September will be ready, as I expect it, today.’

‘Good afternoon, Gustavo. Thanks. Yes, I am very happy with my holiday.’

‘I’m glad, Elena. Very good. What about the report? I’d like to have some more information, please.’

‘We plan to finish the work this week, Gustavo.’

‘I need a final version, not a draft, by Friday. Early next week, we report on the results to the council, so, ladies, I ask you not to let me down. Agreed?’

‘Of course, we will do everything by Thursday.’

‘Good. If there are any problems, I’ll be in touch. It is an important matter. So if...’

‘Got it, Gustavo. Thanks.’

‘Well, that’s done! Back to work then!’

V-Tours

‘Good afternoon. Please come in. How can I help you?’

‘Hello. A friend recommended your agency to me,’ Susan handed the manager a business card that Elena gave her.

‘Ah! Of course! Are you Susan? Elena Vega told about you.’

‘Yes, that’s right. I just wanted to understand first of all how your company works. Which destinations you may offer then.’

But for some reason I couldn't find any information on the internet.'

'Susan, please come in. Make yourself comfortable. Can I offer you water, tea or coffee? Maybe you prefer fresh juice?'

'Thanks. Water, no gas, please.'

'Of course. Just a minute.'

'You are right, Susan, given the unique profile of V-Tours, the experience that we offer to our clients, we really do not advertise our services widely. V-Tours relies on the feedback of those customers who have already experienced our service and are ready to share it with their friends and acquaintances. This is the way we develop our business, put up the number of our customers. In simple words, recommendations of our customers drive our development. So, as you can see, the reputation of our company is much more than just the budget spent on an advertising campaign. We are glad that your friend recommended V-Tours opportunities to you.'

'I got it. Good. But which way, in such a case, can one still understand in detail what exactly the specifics of your agency's work are? Why it is unique, as you are saying? Elena said that you will tell and show me everything.'

'Of course. After all, that's why you came to us.'

The manager handed Susan something like a motorcycle helmet—except that there was no recess, no cutout for the eyes. The front part of the white cast helmet ended, apparently, somewhere at the level of the nose. At the same time, it was very

light. The interior upholstery stood out with a bright blue fabric. ‘What is it?’ Susan asked, turning the helmet in every direction. ‘A working prototype of a neuro-communicative interface. To some extent, its functionality is similar to a virtual reality headset. Only in our case, virtual reality will seem nothing more than a primitive children's game from the last century. To understand what we are offering, you can put on a headset and we will give you a presentation. Make yourself comfortable in this chair. The entire presentation will take no more than two minutes. It will be more than enough to understand the capabilities and potential of this device. As they say, seeing is believing.’

The silent grandeur of the Grand Canyon in Arizona was there, right in front of Susan. The bright sun was dazzling. Susan took her sunglasses out of her bag. The sky, so deep that one plunged into it in an endless and free fall. She was almost off the ground. Deep chipped channels reliably testified to the violence of the elements that once dominated there millions of years ago. But like everything with a seemingly infinite energy of life, the height originally taken in the battle with time, was given in. The inevitable and irrevocable course of time is truly determined by only one key law: the transformation and connectivity of everything. At the starting point the end of it is set up. Descendants should draw a conclusion from another lesson presented by nature—everything changes, and everything has a limit, regardless of our ambitions.

Susan shuddered—the silence was cut by the call of a faithful

predatory guardian assigned to keep order in the canyon gorges. Looking around, disoriented by the flow of her own emotions, the newborn tourist noticed a bird soaring high in the streams of warm air rising from the crevices. Stepping back from the glass fence on the stone ridge, she turned her gaze to the bright brown observation deck. The morning sun, generously flooding everything with its rays, has already heated the rocky surface. Susan was alone on the observation deck. In the distance, a little lower, there was one capsule in the parking lot which apparently brought her there. She turned back towards the canyon, trying to memorize everything in all the detail and absorb every little aspect. Coming closer to the glass barrier, Susan looked down over the fence. The earth began to rapidly approach ...

As though waking up, Susan got back to her senses. Around her was nothing. Void. All black. Realizing that the headset was still on, she carefully took it off.

‘Oh dear... What is it... What's it?’ Susan looked around, trying to get over it. ‘I... where am I?’, Susan turned her head in complete confusion.

‘Susan, it's all right. Look at me. You're safe. It's all good. You're right where you were. It's only been a few minutes. We are in the office of V-Tours. Here, take it, please... Drink some water.’

‘This is something amazing. I can't describe my feelings. I was there! In the Grand Canyon in Arizona! I was there physically, feeling with my skin what was happening, breathing in the air...’

‘Yes, it's a fantastic experience. And on the other hand—what do you remember? It's like you've just been to Arizona in the Grand Canyon. Like a tourist who reached his destination on the journey. It was perfectly natural. You were just there.’

Susan burst into laughter:

‘I can't believe it! How did you do it?!’

‘It's just... a revolution in travelling... Perhaps not only travelling. In short, Susan, thanks to the recommendation of your friend, you have experienced a new development that will change the world beyond recognition. Soon, it won't be long till we live in a somewhat different world. We don't even know how. We yet haven't realized the full potential of this technology.’

‘My God! This is some kind of fiction! I was there!’

‘The system of neuro-communicators built into the headset scans the biorhythms of your brain, makes an electromagnetic connection and puts you in a state similar to stasis. This is when your body is in a complete blackout. Your sense of reality, all your receptors are completely blocked, but the brain activity is as high as ever. At this moment, our system works in such a way that you, your brain cannot distinguish the real from the unreal, being in a state of pseudo-stasis. It would take you one day to get to the Grand Canyon from Madrid. Not to mention how much effort and time it would have taken earlier. Now all what is needed from you today is to sit in a chair with a headset on. I cannot but note that this development would not have been possible without the defining role of the PAX artificial intelligence. And all the

calculations and assessment of what you have seen is done in the cloud by the power of the system.'

'Some kind of virtual reality!'

'I would say, Susan, this is a new reality or, at least, an alternative reality.'

'It's getting a little scary. I'll tell you what.'

'This is partially the reason why we are in no hurry to make our capabilities known widely. It is already obvious that this stage of active testing is coming to completion. And it will be pretty soon. Let me get down to business anyway. Where would you like to spend your holidays, Susan? What are your preferences?'

Before: Politics

‘A small entity cannot absorb a large one. Or is it possible? Who knows, who knows. Which of these two can come out the winner? Who has a character, who hardens it, and who just happened to be born bigger,’ Robert stared at the fish in a fish tank in his office, twirling a can of worms in his hands. Aquatic inhabitants, who not for once had witnessed important meetings and negotiations in the home office of the owner, were used to receiving encouragement for exemplary behaviour in the form of a daily portion of live food. But that day something changed. There was no reward. ‘*What’s wrong?*’ the fish were asking a dumb question, looking closely at the changing shadows behind the barrier of their habitual habitat. ‘Today, friends, you have to figure out who is a wolf and who is a sheep. Who will rule and who will serve. Today we have to dot all the i’s. And it’s time for you, my devoted protégés, to pay your bills. No free ride. Have taken something, be ready to pay. Sooner or later.’ Robert tapped the glass of the tank with the knuckle of his index finger—the fish scattered in different directions. ‘Let’s see who wins this time!’ he closed the can of worms without throwing them any, and put it in the bar fridge built into the base of the tank.

‘See you tomorrow. Or maybe goodbye,’ Robert’s lips twisted in the semblance of a smile. He went to the bathroom, next to the office, to clean himself up before leaving.

‘Damn it! Just now I could have failed miserably!’ returning abruptly to the office, he took a pen from a pencil glass and a block of stickers on the table and wrote in a flamboyant hand: *Do not feed! RR* ‘No, not like that! Bad!’ Robert looked critically at what he had just written. He sat down at the table and carefully wrote on a yellow sheet—*Do not feed!* Stressing the instruction, he added: *RGR*. Leaving the office, he stuck a sticker on the wall of the fish tank and slammed the door behind.

In the bright light of a dressing room, his legs wide apart and hands on his hips, Robert was trying to figure out: ‘What to choose? Which accents will be right today? That’s the million-dollar question...’ He began to examine the racks of clothes methodically, his feet sinking into the light cream carpet covering the floor of the room. On the left side, on white shelves up to the ceiling, there were all kinds of colourful sweaters, turtlenecks and jeans, tweed trousers and cotton clothing. A row of closed shelves separated a large compartment with casual shoes, containing sneakers and running shoes, flip-flops and boots. Robert was critically examining his reflection in the mirrors in the central part of the dressing room. Regular work-out over the past two years had done their job. He was slim and fit, in good shape. But not over-dried and, even more important, not pumped up. ‘Not too much and just enough. I think it’s the right way. But, of course, we will go on exercising.’ His gaze moved on. A compartment with shirts in two long rows: white, light blue and various shades of blue on top, several light grey and

pink; from below—in variegated colours with all sorts of prints, from classic paisley to trivial checkered shirts. In another divider, all kinds of accessories were stored—ties, bow ties, various belts, scarves and so on... Then again a large row with shoes, but this time of more reserved shades when occasions demand so. The second to last compartment contained multiple suits and dinner jackets. The sanctuary of the owner's style was rounded out by a wardrobe with outdoor pieces, jackets and coats, down jackets, sheepskin coats and all kinds of winter clothing items. 'I don't think I'm going to need a hat today.'

'What's the weather like today, Joe?' Robert asked his digital assistant.

'Robert, it's going to be great weather in Central London today. It's sunny all day. Now the temperature is 19 degrees. During the day, the maximum temperature will reach 26 degrees.'

'Good. And what would you advise me to put on, Joe?'

'Unfortunately, Robert, I'm not ready to help you with that. I can find the contacts of a stylist who will be useful to you with a wardrobe. Should I complete this task for you?'

'No,' Robert replied thinking, 'I don't need a stupid stylist with a loopy advice, what I need is an image verified to the smallest detail that does the job.'

'Okay. Let's be logical. The meeting is rather semi-formal. Although, of course, it is important. A café full of tourists does not imply the expediency of a suit. It's hot outside. Brown shoes,

blue jeans with a brown belt, light brown polo. Pink socks will emphasize a liberal mood. A watch. Which watch to wear?

‘So, let’s see what we have here...’ Robert came up to the shelf on the right and pulled out one of the drawers. In each cell of a large rectangular wooden pallet there were watches: mechanical, golden, steel, with straps made of leather or steel, sporty, with precious stones, round, square, rectangular, plastic... The electronic watch faces, powered by a wireless charger built into the box, were showing the synchronized time – "07:44".

‘It’s so much stuff in here... What to choose?!’ Robert carefully examined the rows of watches, matching the thought out style for the upcoming meeting with an important accessory.

‘I don’t know... I’ll make a neutral choice. An electronic watch in a gold case. Let it be so.’

‘Joe, what’s the temperature in this room? I’m a little hot.’

‘Robert, the current temperature set in the dressing room is 23 degrees,’ the assistant replied. ‘Shall I make it one degree lower to 22?’

‘Yes, please.’

‘All right, Robert. Thank you.’

Having dressed, Robert critically examined himself in the mirror:

‘There’s something wrong about all this. Stupid shoes. Need them more casual, but also brown. These classics are too pretentious. The belt doesn’t fit either. Need a simpler one.’

‘What do you think, Joe? How, is it? Everything OK or should

I fix something?’

‘Robert, please specify what you mean.’

‘I see.’

Robert went down to the living room on the ground floor, where Antonio was relaxing on the sofa. Frames of the morning news show were changing on the screen on the wall. The guest in the studio was trying to be convincing while explaining something to the host in the studio, who, apparently, was not very happy with the direction the conversation was taking.

‘What kind of a weasel is that man, Antonio?’ Robert asked.

‘Who knows. I have no idea. Anyway, it is important for me to understand how the presenter will carry on with him. It is quite possible that we will also need to get into the program. So I’m trying to *read* it,’ Antonio picked up the communicator and started making notes.

‘Look at me—is everything all right?’

‘What’s the matter, Robert?’ Antonio turned to him. ‘Oh. I see. Antonio got up from the sofa and walked over to his boss, examining him from head to toe. ‘Well, I can tell you, I think everything is fine. Although... Wait... rather, you know, too good. It’s too proper or something. We need a slight imperfection. Maybe let the polo out of the jeans? Eh?’

‘No, it would be too informal.’

‘Well, actually, yes. I agree, Robert. Then here’s what. I know. We need to change the watch. Keep it simple and out of place.’

Robert looked at the chosen watch:

‘Okay. Good. Then, the best choice is up to you.’

‘Of course, in a moment,’ Antonio replied and went into the dressing room. ‘As you know, every detail is important in our business!’ climbing the stairs, he shouted out.

‘So it’s exactly the problem, that I know...’ muttered Robert.

Barel, who was sitting in the kitchen and reading the news, looked at the boss, distracted by their conversation with Antonio:

‘Good morning, boss,’ he said in a loud voice.

‘Oh, hello, Barel. I didn’t notice you. Everything OK?’

‘Well, yes. It’s all good. The weather is great today.’

‘Now, that’s fine, Barel. We’re going for a little walk today.’

‘Yes, boss. Meeting with the Chinese guys at 12:30?’

‘So it is.’

‘What do you prefer, boss—by tube or by capsule?’

‘It will be hot on the tube. We’ll drive somewhere closer to the meeting place. And then I’ll walk. And you have to stay in the car, Barel. I’ll go with Antonio.’

Barel looked at Robert:

‘If I must, then I must, boss. Whatever you say. Anyway, I’ll be there. I think there shouldn’t be any problems.’

‘I’m positive too. But, as our old friend used to say, *the best improvisation is prepared improvisation.*’

‘He was right, your friend, boss.’

Robert smiled.

Parliament

Barel, having made sure that everyone was in place and ready to go, took a seat on the first row in the capsule—the car smoothly started accelerating. On the control panel, he double-checked the route and microclimate settings for the drive. Everything as Robert prefers: 22 degrees, active filtration and ionization of the intake air, noise reduction and silence in the cabin. Then, his task was to look around and to not interfere.

‘Robert, should I go through the main points of the conversation as we’ve outlined it?’ Antonio asked.

‘Listen, everything is going to be as usual—no matter how many times you repeat, nothing will go according to the plan.’

‘This is, of course, true. But the key issues should be worked out in any case.’

‘I do remember everything perfectly, Antonio. Don’t you worry. Last night I double-checked everything and thought it through again.’

‘All right, boss. Whatever you say.’

‘He calls me *boss* when he feels hurt or when he’s nervous,’ Robert thought. ‘Everything all right with my fishes? Have they sorted it out among themselves or are they yet pretending to be civilized...’, he plunged into thoughts, looking at the houses in the streets of London on their way.

A new page in his life history opened with London. Robert’s parents decided to try their luck in the States in the middle of the 21st century, emigrating from the UK to Los Angeles. As

it sometimes happened to the middle class English aristocracy, the inheritance received by his mother did not provide even for paying utility bills in their estate, not to mention the maintenance of the ancestral nest at the adequate level. His mother was convinced of her innate artistic talents, but she believed that European venues would be too cramped for her...and it was not for her pure-blood baroness status, to measure herself against the so called *local élite*, as she used to say, asserting herself. A different matter altogether was the Olympus of Hollywood, with its boundless potential of studios that have written their names into the walk of fame of the world film industry. In the end, the house was sold, and they left for the west, full of new expectations. She was deeply and genuinely surprised though with things going wrong there, in the New World as well. To be fair, for the rest of the Richardson family, who remained to languish on the ever foggy island, the news from the other side of the Atlantic was not a surprise. The newcomers had to move to the suburbs of Los Angeles, Emily began working as a sales assistant in a local shop, and her father, never finding himself in the new world, could not stand new challenges and took to drinking. Robert's uncle, Emily's brother, who remained at home in England, managed to get back on his feet and achieved a certain position. He was well versed in marketing and being a good psychologist found his vocation as an excellent PR man, combining in his practice an understanding of the laws of perception and clients' business interests. Later he opened his

own agency in London. It was Uncle Oliver who invited his young nephew to London and agreed to pay for his studies at one of the best business schools—Oxford University. There was only one single condition—having graduated, Robert had to join his uncle's team and develop the company together with him. Later, however, other circumstances of the *deal* came to light, which Robert did not suspect initially. Finding himself in the middle of the capital for the first time as an adult, Robert fell in love with its imperial greatness, inspired by the history of great conquests, financial ambitions and achievements, political intricacies. To a young man who grew up in the City of Angels, London appeared to be one of the pillars of the modern world.

‘Boss, from here you have to walk about three hundred meters to the restaurant where you will meet the Chinese partners. Antonio, do you know where to go?’ Robert, who nearly slipped into slumber during the smooth movement of the capsule, was stirred by Barel.

‘Of course, I know where we should go, Barel. Although I am not a local, I try to do my job professionally.’

‘Don’t get so nervous, Antonio. I am just doing my job, like you are. Not joyriding’

‘That’s it. All right, Barel. Thanks. Let’s go,’ getting out of the car, Robert waved his hand to the assistant.

Noisy and discussing enthusiastically the impressions of the morning hours, tourists filled in the entire space of the café. Antonio approached the waiter, said something, and they were

promptly taken over to a table near the window where the two Asian people were sitting.

‘Good afternoon, gentlemen,’ Robert greeted them, extending his hand.

‘Ah! Here you are, Robert!’ the two Chinese stood up and greeted the new arrivals. ‘Please take your seats, Robert and your friend ...’

‘This is my assistant, Antonio. Have you already made an order? They do excellent fish and chips here. I would strongly recommend it, gentlemen,’ Robert immediately wanted to make it clear who the master of the situation was, and who was only a possible contender for the position of the purse. ‘Thank you very much, Robert. We’ll probably stick to tea and biscuits. We have a busy schedule today,’ the Chinese man was clearly making Robert understand that his cheap tricks were not working on them.

‘Of course, Heng. And we’ll go for fish and chips. Antonio?’

‘Yes, Robert,’ Antonio raised his hand, calling the waiter over.

‘So, Heng,’ Robert continued, ‘how do you like the view?’ Robert waved to the window looking at the Palace of Westminster.

‘The Parliament is very beautiful and certainly grand, my dear friend. It’s very kind of you to invite us here for tea.’ Heng nodded, smiling slightly, confirming with a gesture his readiness to carry on a dialogue. His thick and grey hair stood out unruly and a little funny on his head. Both Heng and the

young girl accompanying him were dressed in formal business suits. Moreover, it seems that they've bought them quite recently, they were new.

'Thank you. We are glad to see you and are glad to have the opportunity to discuss business. So you say you've been in London for some time now?' Robert looked at the girl.

'Not really, Robert,' Heng replied, 'we've arrived only a couple of days ago. But, as I mentioned, the agenda is very tight. Certainly you understand, our main task is to consider the risks and make...take the right decisions. Talking about politics, obviously, the right strategy would be some diversification, so to speak. Of course, for such an approach one need a certain level of resources and assets.'

'I quite understand you, Heng. Betting on one horse...'

'Okay, Robert. It is important that we are open with each other here, and can dot all the i's and cross the t's. May I ask you, Robert, what is your plan? The general line?'

'That's why we're having this meeting. The plan is simple. Step one. In a year and a half, as an independent candidate, I will enter this symbol of legislative power. Step two. In the next cycle, I plan to enter another door with a well-defined street name and a house number.'

'And in which capacity are you planning to take your second step, dear Robert?'

'As the host of the house, Heng. You shouldn't have given up

the fish after all. They do it great here.'

Heng paused for a few seconds, assessing Robert.

'You have a very clear strategy, Robert. But aren't your plans too hasty?'

'My plans have, as I expect, quite a tangible basis. Isn't that right, Heng?' Robert began eating with his fingers and somehow, the process seemed quite aesthetically pleasing.

The Chinese took a cup of tea and looked away in the direction of the Houses of Parliament.

'Impressive, isn't it?' Robert asked.

'Yes, the history of your country, Robert, certainly deserves a careful study,' Heng replied. 'You are aware of our goal. We think about our interests.'

'Of course. As well as all the parties to this process. Finding the right balance is the subtlety.'

'That's right, Robert. And faith alone, as you may assume, is not enough to understand how the parties could interact.'

'All right, Heng. I will briefly outline our expectations and our understanding of the value of the parties involved. First of all, I agree with you—the plan I mentioned does not really contain details, but obviously we understand in a quite tangible way which direction to take and how to proceed. My life story, professional practice clearly shows how we achieve results. And, of course, what results can be counted on. But may I assume that we wouldn't have this discussion with you here were it not for your forecasts and models clearly demonstrating to us what we

are talking with you about,' the assistant nodded her head.

'Then, the second point. Why we believe that it is in this negotiation format that we could be useful to each other. We need a slightly different resource basis. Not the one you mean, dear Heng. The events that I experienced in my life, which in fact shaped me, as well as my previous activity focus when I was involved...so to say, in relationship marketing—in a word, this basis gives me a clear understanding of how we will achieve our goal. We need access to an analytical resource that is not burdened with imposed restrictions. That's the key question. The base you are talking about is just an additional pleasant bonus. Nothing more.'

Heng blushed and stopped chewing cookies. He was clearly making a lot of effort to keep himself under control. Heng quietly said something to his assistant in Chinese. She got up and went somewhere.

'Very well, Mr. Richardson. What do you suggest?'

'It's obvious. Our countries should be much more active in fulfilling the potential of co-operation, which does not manifest itself in any way today,' Robert looked at his counterpart, who seemed not ready for such a conversation at all. It was obvious that he also did not have the authority to take any such obligations either. But no one would have expected it, to be fair. He knew that the guy sitting opposite was only an intermediary—such were the rules of the game.

'I understand,' Heng took a napkin and wiped his lips. 'If we go

back a little. As you called it—*the resource base that you mean.* I would assume that the deal won't work without this component.'

Robert was holding a glass of apple juice with ice obviously in a completely unnatural way—his two fingers were turned in the direction of Heng. Heng, unable to restrain himself, with his eyes widened, blushed again. Robert smiled.

'Well, Mr. Richardson. I have only to thank you for the meeting. You've chosen a great place to talk,' pointing towards the window, Heng noted, bowing slightly. 'All the best to you.'

Tourists were flowing in. New visitors were crowding at the entrance, wishing to enjoy the view of the buildings of the Palace of Westminster with its hundreds years of history at lunch. Next to the table where Robert and Antonio remained sitting, a group of teenagers settled down, vividly discussing something with the outbursts of swearing of all the possible sorts from time to time.

'Why wouldn't you eat fish? Really very good.' Robert took a napkin and began carefully wiping his greasy hands.

'Have you had too much, Robert?' Antonio took wet wipes out of his bag and handed them to his boss.

'Thanks. What do you mean?'

'You know what.'

'An eight-digit number of *the resource base* or something?' Robert smiled.

'That's right.'

'First of all, they need us much more than we need them. We can do without them, as you know well. But they won't without

us. So, we have nothing to lose if friendship is not in place. Then I thought I should take care of you, too. Let's see what decision our Chinese friends will make.'

Robert looked across the river at the parliament: 'Today, bathing in the sun, it shines like never before, reflecting the rays of power and greatness. We will definitely come back to the conversation with this *Kim*. He will remember this meeting for the rest of his life, and I won't even recall his name.' Robert felt excited.

Cheremkhovo

Two hours after the tedious flight from London to Irkutsk, and finally Antonio took a transfer to the hotel in the city centre by an air taxi drone. He was alone in the car—nothing prevented him from taking a bird's-eye view of the Siberian city where he was for the first time.

'What's the temperature outside, ... taxi?' having decided how to put it, Antonio asked a question.

'It is currently 29 degrees plus in the city center. It's not going to rain today,' the digital assistant replied.

'How much longer will it take us to fly to the hotel?'

'The journey to the *Siberia* hotel will take no more than 12 minutes.'

'OK.'

The city center with high-rise buildings stood out ahead in a light haze. Skyscrapers tore apart the horizon, piercing

the cloudless sky with sharp spikes. Antonio looked down. Apparently, they were flying over the suburbs of Irkutsk. Private houses, wrapped in a green blanket of foliage, were gradually thinning out, giving way to modern multi-storey residential quarters, through which groups of church domes could be seen in the distance. Their golden arches dazzled the eyes, reflecting the sun rays. He has counted at least six churches already.

‘And where is Lake Baikal, taxi?’

‘Lake Baikal will be on the left side all the way through the flight of the drone. But at this altitude you will not be able to see Lake Baikal. We will soon fly up to the Angara River. I can give you a sightseeing tour of the city center.’

‘Not this time. I don’t have time for this.’

Antonio was pleasantly surprised. He expected to see a provincial town in the middle of *nowhere*, but there was Brussels or maybe Munich in front of him. Only the Orthodox churches along the way would not let anyone to be misled about the city origin. The well developed infrastructure of the modern centre, surrounded by cosy and green suburbs of one of the largest Siberian cities, fascinated Antonio.

The taxi flew up to a high-rise building, on which roof he noticed a landing spot marked with circles. The taxi slowly started to descend. As soon as the hum of the electric motors died away, a hotel employee approached the drone.

‘Mr. Vidalgo, welcome to the *Siberia* Hotel.’

‘Good afternoon,’ Antonio replied. His headphones with

a built-in translator on, he could communicate with others, continuing to speak English and understanding perfectly his interlocutors.

‘Did you have a good flight? Can I help you with your luggage?’

‘Thank you. Everything is OK. I only have this bag.’

‘Of course. Will I take you to your room or would you like to go down to the lobby?’ the hotel employee asked checking.

‘Straight to the room, please.’

‘Very well, Mr. Vidalgo. Would you follow me, please.’

While waiting for a guest in his room on the fortieth floor, Antonio ordered coffee to cheer himself up a little. Initially, the meeting was supposed to take place not far from Irkutsk, in Cheremkhovo, which had a rather ambiguous reputation. Earlier, over a hundred years ago, coal was mined there. But today the fate of the town was related to completely different opportunities. Cheremkhovo was considered to be one of the world’s informal hacker centers. It was possible that such a fame was to some extent supported and cultivated by certain government agencies. They said that the Russian security services were related to the activity in Cheremkhovo. It would be naïve to assume that the authorities did not know what was going on under their very noses. Most likely, once a free and informal community of talented programmers got close or was forced to make certain contacts with the state. But it didn’t bother Robert at all. So it shouldn’t bother him either. And yet Antonio preferred to hold

a meeting in Irkutsk.

He came up to the window looking at the city centre, where cargo and passenger electric drones were flying in-between high-rise buildings along several air corridors. Each corridor was dedicated to movement in one direction only. From a distance, it reminded Antonio of ants' paths where they would diligently carry all day long whichever sticks, bugs and larvae. The Angara River was visible between the buildings, its water surface illuminated with the bright sun, and pleasure boats and yachts gliding. For a moment it seemed to him that there was something familiar about the view—it was as if he were in his favourite bay in Naples. A knock on the room door brought him back to reality.

The guest, who introduced himself as Alexander, was sitting opposite Antonio in the living room at a round table in front of the window.

'Won't you mind my closing the blinds—the sun hits right in my eyes,' Antonio approached the window and began to close the blinds.

Alexander continued to silently scrutinize his potential client, taking sips from a bottle of coke.

'Our mutual Chinese friends, Alexander, said that you are able to help with our problem.'

'It is quite possible that I can. Let's discuss what exactly you need, Anton.'

'Antonio. My name is Antonio.'

‘All right, Antonio,’ Alexander replied indifferently.

‘I need a secure, reliable and remote access channel to a powerful quantum machine that can solve the required task. This is the first. At the same time, the computer must have access, must be connected to international databases. The second. We need a good programmer who is ready to do the job without asking any questions on the computer mentioned in point one. That’s all.’

‘It’s all so simple for you, Antonio, isn’t it. What’s wrong with the PAX then?’

‘If it were OK, we wouldn’t have communicated with you, Alexander. We need to solve a number of tasks, process a large array of data according to the specified parameters. The job must be done without advertising either the task or the result. Confidential. Working in the PAX system does not satisfy us with the approach required.’

‘Well, let’s assume the task is clear to me,’ Alexander pulled his cap lower on his forehead.

‘D’you have any idea how much such services will be?’

‘And how much?’

‘A lot. Very expensive.’

‘Very expensive—how much is it?’

‘And how much data are we talking about?’

‘Let’s just say we should focus on an array with several billion variables that should be evaluated for their dependence on a wide range of various conditions.’

‘And what does that mean?’

‘It means, Alexander, that the job is not an easy one. And that the specialist must meet the requirements and conditions of the task.’ *I’d better calm down*, Antonio thought.

‘I’m asking questions just to see if we can fulfil your task. Would you give some example of what needs to be solved.’

‘Okay,’ Antonio replied, his lips together. ‘OK. Here you are, for example: what will the optimal route for a new metro line in Irkutsk be: where is it best to locate stations, taking into account the activities citizens carry on in their daily routine?’

Alexander paused and chuckled:

‘I see. Wow, such a task.’

‘This is an example, Alexander.’

‘I can’t give you an answer now. You are asking an open question, which implies access to a serious database, hardware and all that, and the level of someone’s skills to do it. For how long do you want to stir up this story?’

‘One year.’

‘Ha! Just one!’

‘Well, yes.’

‘It’ll be a six-digit figure. That’s for sure,’ Alexander looked at Antonio from under the peak of his cap, raising his head.

‘I think we can come to an agreement. When will you be ready to advise the details of your proposal, so that we can make all the arrangements?’

‘I’ll be back with the information within a week, Antonio.’

‘I am not planning to stay in Irkutsk for a long time. Can you clarify the information today?’

Alexander took the bottle and finished his coke:

‘Good. We’ll be in touch.’

Program

‘My program is based on social challenges important for our society. On those screaming points of pain that people are experiencing here, today and now. What do we care most about? What everyday problems and challenges do Londoners have to face? What can we, as lawmakers, do for society to solve long-overdue problems? Problems that for some reason were ignored by those who should sort them out, to whom the voters had delegated their voices. Why weren’t those voices heard? Why are the issues that determine the standard of living of our people ignored? Have they not found time for it among their endless spinning of political schemes, in which, of course, they are completely absorbed? This is in the root of the problem.

There is no need to invent anything or to think out flimsy suggestions of what has to be done. The whole program of actions is around us! You just need to look around carefully. You just have to talk to people! From us, the executors of your mandates, only one thing is required – to listen!

I’m asking questions!

Why isn’t there an entrance to the underground highway built in our area yet?!

Why is the renovation of Bolton Gardens, which has been going on for the second year, not yet completed?!

Why do our residents have to queue for two months to see a dentist, even if a surgery is necessary?

Why was the grocery closed, the one on the corner of Warwick Street, where social coupons were accepted,? Isn't it there that another new business center is now under construction?

I do ask questions – why wouldn't they listen!!'

The crowd cheered. Someone whistled and began to shout out: 'That's right, Robert! Right! But what can you do? What are you suggesting, Robert! What, Robert?'

'I do hear you! And is this my answer. The first thing we need do is to make those whom we trust to represent our interests, to make them responsible for their words, responsible for what they promise! Elections pass and everything is quietly forgotten. The so-called representatives of the people change their masks so quickly, join some big parties, blurring into the vast oblivion, where they can no longer be seen, where they are only a small part of something big, so that we can no longer reach them. I wonder—is this the choice we make?!

'No! No! They're parasites!' voices echoed in the square.

'Parasites, you say? I bet! They mimic. They are worse than parasites. We won't confuse a cockroach with anything and we can just swat it with a slipper. But the representatives of our will chosen by us so skilfully take off their skins, merging with an army of their own kind as soon as they get what they want from

us. They don't remember their promises. They have one goal—to serve the interests of the party. And whom are the parties siding with?! I'm asking a question! Big business! That's what's important to them! They don't want to think about our rotten teeth, about the collapsed paving stones in the park, about the need to develop transport infrastructure! They don't want to pay the bills anymore! This is the way it is working now!

'And what makes you different? Are you better at all? It doesn't look like your teeth are rotten!' The crowd burst out laughing.

Robert was beaming. His right hand on his chest he continued: 'That's right! I managed to replace all my crowns before the price went up!' again the wave of laughter rolled over. People were standing in front of the low podium where Robert was making a speech, and the crowd was getting bigger and bigger. The lunch time was the right choice.

'I offer a simple solution. To act without any tricks and dodging. There will be no way for: *I didn't say that. Or: now this is not on my list of priorities. Or: it was in my previous life, no one will remember it now.* This is how it usually happens. But here, the solution lies in the problem itself.

My team and I,' Robert turned and pointed towards the people standing to his left so that others could see them on the right, 'have launched a website where, in the first place, every speech we give, everything I say or write is published in the form of articles. Then, a simple and clear list of tasks with specific

deadlines is provided. This list of tasks is my program. This is what I promise as your representative to do for you. These steps that will make our life in our neighbourhood, in our area better. Obviously, I will not be able to renounce my promises, my obligations to you. My site is called *RichardsonPromises.com*. I know what to do to fulfil each of the items and projects I have stated. But I need your support. I need your mandate! I need your voice! I know what we can do together that we couldn't have achieved before. I ask you to visit the RichardsonPromises.com website and look at the list, roadmap, fixed for years to come. If you feel like me! If the problems on the to-do list on the website and talked about here today matter to you

as well—vote! Vote for me! I need your voice so that we can together solve the issues that are important to everyone. Vote! My name is Robert Richardson! I want to be your voice in the Parliament!

Music started playing. Robert began waving to the people in the crowd. Some responded with cheers waving their hands. Robert was standing on the podium, wearing a white shirt with sleeves rolled up to the elbow, no tie, black trousers and plain slightly shabby black shoes. As he was about to step down from the podium, he turned around, showing the website address embroidered in bright blue on his shirt RichardsonPromises.com. Next to the podium there were booklets with Robert's election program, caps and T-shirts, pens and some other small souvenirs distributed on the racks.

Two men stood a little apart from the happening carefully watching what was going on.

‘Well, what are we supposed to do with this freak?’

‘Yeah. Well, yes. A good question. We have to rack our brains, look for what we can... how we can pin him down.’

‘The good question is, how he is going to do all the things that he screamed about here.’

‘Are you asking me or what? How do I know that. Maybe he’s not going to. Or maybe he knows how. The fuck will understand him. Some kind of a weasel.’

‘We have a problem here. I’ll tell you what.’

Precedent

‘Listen, Robert, why do we need all these buffoons here,’ Antonio wondered, looking at a noisy team of five consultants gathered in the kitchen in Robert’s house.

‘What do you think of it yourself?’

‘That’s money poured down the drain’.

‘First of all, yes, as you know, I am really amused by this whole story. I haven’t been so happy for a long time.’

‘I’m very happy for you. At least someone can be happy nowadays,’ Antonio finished his coffee and, put the cup on the saucer excessively loudly.

‘What’s wrong with you? What’s bothering you, my faithful associate?’ Robert smiled, putting his hand on Antonio’s shoulder. ‘Everything is going exactly according to the plan.

We're on schedule. We are geared-up to do the job. We have everything we need to win. Why are you so unhappy?'

'I'm worried... worried about the confidentiality of the approach we take in our campaign...about what we rely on...'

'This is what I say—we need expensive buffoons to provide us with an *alibi*. Don't you think I was going to listen to their *wise* advice. To be fair, I have to admit that sometimes their crazy suggestions make sense. But in any case, we have a roadmap which we follow step by step. We understand clearly what to do and how to do it, what to say, what tune to use and in which circumstances. We know how to dress, what accents to make and the sequence to follow. We know which souvenirs to order. We even know what sort of cover rag has to be on the table, where my program will sit, and what colour this rag should be. We, Antonio, are now looking at the world as Newton looked at light through a glass prism. It's not just a ray of light we see. We see all its components, the whole spectrum. We see what others don't see. We know everything. Almost all of it. Of course, one shouldn't be lost in a fit of obsession,' Robert held up his index finger. 'And those...people will serve as a screen for us. Everything will be fine. Don't get nervous, Antonio. Maybe you need a day off? Go to see your folks in Perugia?'

'Now? In the midst of a campaign! I don't think it's appropriate.'

'Your twitching is also inappropriate.'

'Listen, Robert, I'm also worried about our Russian friends.'

‘What’s wrong with them?’

‘They can put everything we do like a puzzle together, easy peasy.’

‘I think they’ve put everything together for some time already. What are you so worried about?’

Antonio looked at Robert confused:

‘And it doesn’t bother you that the Russians may know that we are using the analytical capabilities of the quantum system to plan an election campaign?’

‘D’you think they use the system themselves only to develop a plan for planting hydrangeas in their gardens? Or do you think that our Cabinet has not figured out how to use the AI in their work?’

‘I don’t know, Robert.’

‘I know. That’s why I’m sitting here with you, Antonio. I know, Robert paused for a moment, looking in the direction of the PR people. ‘I think you’ve heard about the forty-fifth President of America, Donald Trump?’

‘Of course I have!’ Antonio responded indignantly. ‘An odious guy.’

‘Well, then you probably know that he was accused of being actively assisted by Russian special services during his election campaign. Besides, they say that it was for the first time during his campaign that extensive database analytics of social networks was applied at large-scale.

Based on a deep analysis of user profile information,

adjustments were made to the campaign. What's the result? The results of the investigation indicated that all the allegations were unfounded. No facts have been discovered, nothing has been confirmed. That's it, Antonio.'

'Well, you're not Trump yet, Robert.'

'That's right,' he smiled. 'But only for now. Listen, you and I are in a business where, *all is fair in love and war*, as they say. The way things used to be, the way they are now, or tens of thousands of years ago—nothing has changed. Human nature is the same as well as the possibilities of manipulation are. The only question is, which side of the barrier you will settle in—on the receiving side, or you have something to say. That's it with the moment of reflection, enough, my friend. We are sprinting towards the deadline, and the outcome is close. Leave all your doubts aside!'

Robert slapped the assistant on the knee:

'I want you to go to see your family for a couple of days. Get some rest. And don't worry about the campaign. If we act in a competent and an intelligent way, everything will be according to the plan. Do you understand?'

'All right, Robert. Point taken.'

'Well done! Go home and get ready. And remember, we have obligations to the people!' Getting up from the sofa and heading to the consultants in the kitchen, Robert winked at Antonio.

Uncle Chuck

'Katerina's birthday is next week. She's already invited me.

Are you coming?’ Bella asked her friend as she walked out of the school door.

‘I don’t know yet. She didn’t tell me anything,’ Vera was trying hard to put on her backpack. ‘Let me help you,’ Bella said, eager to help. ‘That’s it. Is that your mom standing there or what?’

‘Yes! Mom! Mom!’—the girls ran to the exit from the school grounds.

After hugging her daughter, the mother greeted Bella:

‘Hello, Bella. And who’s meeting you?’

‘Nobody, Mrs. Mennor. I’m on my own.’

‘Well, what d’you mean? Are you going home alone?’

‘I live very close from here. Round the corner and that’s it.’

‘Let’s take you home, Bella.’

‘No, Mrs. Mennor, thank you. Dad tells me to drive in other people’s cars.’

‘Your dad is right, of course. Well, you do know me.’

‘No, I’m on my own. Thanks.’

‘Are you sure? Vera and myself are ready to give you a lift home together.’

‘Well, I’ll do it myself. Bye, Vera. See you tomorrow. Goodbye, Mrs. Mennor.’

When she nearly made it home, Bella recalled that Dad had asked her to buy some bread for dinner and stopped by the store. There she took her time walking through different departments, looking at beautiful dresses, shoes and accessories at first, and then, going up to the second floor, where household goods were

displayed, she chose a birthday gift for Katerina, which she could ask her mother to buy later. Having decided on the choice of a gift for a friend, Bella again went down to the first floor, where she decided to study cosmetics and perfumes on display.

One of the shop attendants approached the girl:

‘Hello. Can I help you with anything? Where’s your mom?’

‘Hello. I came here for bread.’

‘Ah, I see. So you go to that department over there, darling,’ the attendant pointed to the other side of the store.

‘Yes, thank you. I know.’

‘Well, that’s fine. I’ll buy some bread and go home if everyone is so worried,’ Bella thought.

‘Bella, is it you? Bella Chapska?’ a guy in a grey tracksuit and a cap caught up with her on the street when she was already approaching home.

Bella looked at the guy and walked on.

‘Bella, where are you going? Don’t you recognize me or what? I’m Uncle Chuck. Your dad’s cousin. Dad asked me to meet you and keep an eye on you while he’s busy. Look,’ Uncle handed

Bella a communicator with a video message recorded by dad: *Chuck, hi. Could you meet Bella today and look after her for a couple of hours while I’m at work sorting things out. I have to stay a little longer today. Help me out, my friend, would you!».*

Bella looked at Uncle Chuck again:

‘I don’t remember you,’ she said uncertainly.

‘Well, you remember your dad,’ Uncle Chuck smiled. Bella

nodded in affirmative. ‘Well, that’s great then. Give me your hand and let’s go. We’ll wait for Dad at my place. I live not far from here.’

Uncle Chuck called a capsule to make sure not to miss Dad and in 15 minutes they were already at his house in the living room.

‘I told your dad that we are here and waiting for him. He sent you a big hello.’

Bella was sitting in an armchair and watching cartoons on the wall panel.

‘What do you like better—ice cream or chocolate? Bella?’

‘Mom won’t let me eat ice cream. And Dad says that eating chocolate is bad for my teeth.’

‘Yeah, good. And what do you think yourself?’

‘I love ice cream and chocolate.’

‘I thought so, Bella! I just happen to have a chocolate ice cream! Let’s make a deal like this. I’m going to make two servings of ice cream for you and me, we’re going to eat it together. And then...and then we’ll play with you! Agreed?’ Uncle Chuck smiled and looked at Bella almost like Dad.

‘All right, Uncle Chuck.’

‘Well, there! That’s quite another story! Wait here. I’ll be right back.’

There was some noise in the corridor. Someone entered the place.

‘Uncle Chuck! Ow! Are you home, Uncle Chuck?’

Uncle Chuck suddenly broke out in a cold sweat. Stunned and taken by surprise, he stood in the kitchen with two bowls of ice cream in his hands. Having recovered from shock, he put the ice cream on the table and went out into the corridor, where his mother was standing in the doorway.

‘Ah! Here you are, my dear Uncle Chuck. How are you?’

He looked his mother straight in the eye, his heart racing.

‘Where’s our sweet little Bella?’ the mother went into the living room. ‘Ah, there she is! Hello, Bella! You’ve grown up so much! You are such a beauty! Damn it!’ Entering the room, the woman hit a coffee table. She was still wearing her sunglasses, even though it was dark in the living room. The trees in the backyard, where the windows looked out, blocked the sunlight.

‘I’m sorry, Bella. Swearing is not good at all. Oh well. My name is... Tina. I’m your Uncle Chuck’s mom. It turns out that I am your great-aunt. I’m really glad that we finally met, Bella.’

The girl, confused completely, sat quietly in a chair, not knowing what to do next. She felt like crying.

‘So! Grandma commanded. ‘Crying is the last thing we need, Bella. It’s all good, isn’t it?! I’m taking you home now, baby. Your dad will be home soon. Come on, pack up and let’s go, honey. I’ll call the car now.’

‘Bella, say your uncle *bye-bye*,’ grandma took the girl by the hand, and they left the house.

Uncle Chuck was still standing in the dark corridor, motionless.

Sir Lawrence

‘That damn middle-aged *dandy* Richardson is ahead of me by 7 points. And this is only the middle of the campaign. Do you get it? By seven points! What are we going to do?! What?! What are we going to do with it?! The election is in four months. We have lost. Damn it!!’ Peter was pacing up and down the room like a wind-up toy. His noble profile was reflected in the mirrors of the bright living room, where his assistant and personal secretary were watching him going hysterical. Lord Lawrence’s evening program included a visit to the Royal Albert Hall. He was almost ready, just to change for a dinner jacket.

‘Please calm down, sir. You can’t torment yourself like that. It could end up bad. Peter, you’re not a hundred years old. So think about your health first, sir,’ his assistant tried to calm down the patron.

‘What do we have on him? Have you collected the material? Have you been able to collect any material at all? Damn you!’ He plopped down in a chair opposite his employees and his lean body jumped slightly in it, making him even more unhappy.

‘Elsa! Elsa!’ Sir Lawrence called the maid in a shrill voice. ‘Where the hell did she get to?! ELSA!’

Elsa floated into the living room in a hurry:

‘Yes, sir.’

‘Tea, please, bring us tea. And cookies, as I like it.’

‘Of course, sir. I’ll do it straight away, sir. Is there anything

else you'd like, gentlemen?' She looked at her master's guests.

'No, thanks. Although... please bring some water without gas.'

'Why do you need water, Mao. We're going to have tea...well, if that's what you want. Thank you, Elsa.'

'So, gentlemen, what do we have on this pygmy?' The lord persisted.

'Sir, at the moment there is information on hand that is common knowledge. We are working on...' Peter Lawrence took a newspaper from the coffee table and started beating with it mercilessly on the side of the chair.

'Do you see? It was clean here a minute ago! Now, having worked on it with a newspaper, I have knocked out all the dirt and dust from this chair. Do you know how old this silk is?'

'Excuse me, sir?'

'That damn golden silk!' Peter started hitting the chair with the newspaper again. 'Almost as old as that fop and filthy American immigrant. He goes, you know, back and forth! 100 years! This chair is 100 years old and its silk upholstery as well. You have to work better! Dirt and dust are everywhere! Is it clear to you?!'

'Yes, sir. Quite clear,' the assistant replied.

'Peter, the problem is that there is nothing on him at all. It's just that everything is clean,' Secretary Mao joined the conversation. 'I can hardly imagine this possible at all.'

'Here we go again! Did you both plot together today?! Are you kidding me?!'

‘Peter, I’m trying to give you the real picture, not only what you would be pleased to hear. Well, excuse me.’

Elsa brought in tea and cookies served on a small cart. After taking a few sips, Peter calmed down a little:

‘Good. Of course, I understand your arguments. But I’m sure, I’m 100% sure, more than 100% sure that this scoundrel has skeletons in his closet! Just look at him,’ Peter gestured to a panel on the wall, with the picture of Robert Harold Richardson—the lord’s main competitor in the upcoming elections to the British parliament.—He’s just perfect. Young. Handsome. Fit. His clothes perfectly chosen. His program ideal. He even has a pedigree. Although it limps a lot. And what about his wife or husband, or who does he sleep there with? What about the family? Did you search?’

‘Yes, sir. We didn’t find anything worth mentioning there. So far.’

‘It’s good that you’ve got the point—*not found yet*. Well, I will not go around in circles.’

‘And what about his stupid mother? With this weird kind of an actress who dragged the whole family over to the States? Worked as a cook there or whoever. I don’t remember exactly anymore,’ Peter bit into a cookie and took a couple of sips. ‘I used to know her for once long time ago. When I was still very young. More than a hundred years... exactly more than a hundred years ago. Even before she emigrated to the U.S. What about her?’

‘Sir,’ the assistant started, ‘when Robert got back on his feet,

returning from America to England, he moved the whole family back. His mother now also lives in London. We couldn't have gathered anything interesting on her. There's no information at all. And his father died in the States. Liver cirrhosis. But this story has been around for so many years that it makes no sense to use it somehow.'

'How did he get on his feet here, as you say? Who helped him and how?' the lord definitely was not going to calm down.

'An uncle. His uncle did well in the PR business. He had his own successful company, which he handed over to his nephew. That is to Robert. His uncle was one of the prominent gay activists in England. He invested a lot of money in the gay community support fund when this topic was relevant in the society. I mean, once the so-called gay community needed support, protection and money to lobby for its interests. Which, of course, is irrelevant now at all. But at the time, Robert's uncle made a notable contribution to this cause.'

'I know what you mean. There's no need to chew everything up here for me. So maybe this Richardson likes boys too,' Peter said hopefully.

'Who cares now, sir,' assistant Mao objected.

'Well, what can one expect of this society! Nothing is of interest to anyone anymore! What are they interested in at all!' Peter was getting excited again.

'In my early days, having such secretive adventures, one could

have paid with his career. There were times! Not interested... Look around! Search! There must be something! If you are not able to solve the issue on your own,' the lord continued, 'let's check how much it will cost to delegate such job to professionals. How much is the work of a detective agency? Based on the story you have yarned to me here, I see two possible directions that should be pursued.

First. *There is nothing, and everything is cleaned up.*

How could it be that a person nowadays would not have a digital footprint? Well? It's obvious even for me. And I'm already, excuse me, over 150! Second. Let's call it *boys*. Let them dig into his crazy uncle and himself. Who is he dating? Who is he sleeping with? Work! Dig in, guys!

Dig in!

Plan

Robert was sitting at his desk in his home office. Dusk was falling down. It had been dark in the office for a while, but he didn't turn on the light.

'Why are you sitting here in the dark, dear?' his mother came into the office and turned on the light.

'I was waiting for you,' his eyes narrowed with bright light.

'Hello, Robert,' she came up to him and kissed him on the back of the head. 'You look smashing as always, my boy.'

'The genes are yours.'

'Well, yes. What else. Maybe we'll have some tea?' she asked.

‘What is it?’

‘I just wanted to see you. Find out how you’re doing. How’s your campaign going? And, by the way, where is your friend... Antonio, I think. Stallion! An Italian thoroughbred stallion!’

‘A stallion in Italy.’

‘You mean in Italy?’

‘Antonio, Mom, is in Italy now. Do you need him for any reason?’

‘No, my boy. That’s just my way. Well, is everything going according to the plan?’

‘Yes, exactly.’

‘I’m very happy for you.’

‘It’s too early to celebrate yet. There are still four months to go until the end of the campaign.’

‘Of course. I remember, Robert. Tell me, do you have any kind of contingency plan?’ she gestured quotation marks. ‘How do you plan to solve problems, should they arise, of course?’

Robert took a deep breath and looked at his mother:

‘I’m working on it.’

‘I want to tell you, my boy, that I think the risks are minimal.’

‘If unforeseen circumstances hadn’t interfered with my plans, Mom, there would have been nothing to solve.’

‘There’s nothing to discuss here, Robert. There are things—, she looked at him and shifted her gaze to the window, in which the golden foliage on the trees were rhythmically counting down

the remaining hours until the end of autumn. ‘You know, because I never told you. When I was little, almost like that little girl, I also found myself in a similar situation. And you know, my boy, no one came to my help then.’

There was dead silence in the room.

‘Well, that was a long time ago,’ she said cheerfully. ‘I have been living in this world for almost 150 years. And I’ve seen a lot. It is, what it is. I want to tell you that I hardly see any risks.’

‘There are risks,’ Robert replied. ‘And they’re rather high. I am a public person. My voice sounds often, and it can be heard. This may be the main problem that needs to be solved. That’s how I see the situation now.’

Getting up from the chair and coming up to the door, the mother turned to him:

‘I will love and protect you always, as it has been in any circumstances, my dear boy,’ she quietly closed the door.

Robert was sitting at the table for a some time, staring into an empty aquarium, where two fish were lying on the bottom. The sticker he left a few days ago was still on the glass: *Do not feed! RGR.*

Before: Weather

‘Rob... Robin! Robin!... What’s going on?!’ Igor was desperately trying to get through to his daughter. Music was thundering all over the house, its destructive source was obvious to be somewhere above. Boom-boom-boom... Igor, jumping two steps at a time on a narrow staircase, dashed onto the second floor. BOOM-BOOM-BOOM! The sounds from the daughter’s room were taring apart the entire space around. A bit more and the foam blocks of the outer walls will begin to crumble like sand. Igor stopped in front of a shut door and, with his eyes closed, began to inhale deeply and exhale slowly: *Deep breath and exhale... Inhale and exhale. Now I’m ready.*

‘Robin!’ Igor knocked loudly and persistently on the door. The music stopped, and everything appeared to be at a standstill. A blissful silence reigned.

Robin opened the door:

‘Oh, hi, Dad. I didn’t think... I didn’t know you were back yet. Everything’s fine? You’re kind of worried.’

‘Robin, please, if you want to listen to your music... no one would restrict you. Listen. I am asking just one question: why do you think that our neighbours share your musical preferences? Have you run a survey? Do people like... I don’t know what this group is called or what it is in general...’

‘Dad, I’ve got you. But when all the receptors are working,

not only the ear nerve endings, you perceive the artwork in full. Would you agree?’ sitting at a table littered with God knows what, Robin started typing something on her tablet.

‘Robin, this is a very interesting theory. But please, may I ask you to respect others at least for the sake of your own safety. Deal?’

‘Okay, Dad.’

‘Are you all right?’ Igor breathed out.

‘Yes, everything is fine. Why?’

‘I need to take some papers with me to the lab. I’ll be leaving in a couple of minutes.’

Igor cast a quick glance around his daughter’s room: *Everything as usual: a mess, a mess and complete chaos.* A poster with someone unknown was attached with white tape to the wall: a guy wearing make-up, in a torn T-shirt and zebra-print leggings was shouting something at the top of his voice, as if trying to escape from the wonderland of the poster, in which he found himself against his will. He wanted to get out and be with you. Igor shook his head, trying to get rid of the obsession. Robin’s clothes were scattered everywhere—on the bed, on the armchair, the leg of jeans hung from the closet. He came over and started pulling on the jeans off the door of the closet.

‘What are you doing?! Don’t do it, please!’ Robin, noticing what her father was about to do, protested loudly. Clothes fall on him from the closet, including sweatshirts, socks and underwear.

‘My God... Robin... I understand everything, of course... But

you have a closet here!’

‘Don’t touch anything here! Is that clear?!’

Retreating, and nearly leaving the room, Igor briefly mentioned addressing his daughter:

‘And why did you turn on the air conditioner? I know it’s summer outside. But we don’t get above five degrees here.’

‘A complete copy of the mother,’ Igor reflected. ‘Distracted, unfocused and disorganized as her mother. Just emotions, and everything is on the verge. All or nothing. Music—making the whole village listen. Getting ready for exams—nothing else happen to exist around. No food, no father, no friends.’ Approaching the stairs, Igor looked at the closed door on the left. Holding the handle of the door, he stood there for a couple of seconds, no more. And started going down the stairs.

Closing the door to her room, Robin stared at her father’s lean figure near her mother’s home office.

Friends

The drone with passengers was descending smoothly on a small airport site near the Sagarmatha National Park. Igor was sitting in the car in a parking lot, waiting for the dust and sand, which was lifted into the sky by the flying taxi electric motors, to settle.

‘Hello! Hi Edik, Rusya! Welcome to the holy land of Nepal!,’ hugging old friends, Igor greeted the guests and pointed the way to the car.

‘We are very glad to finally get out to you, dear! Let me look at you, old boy!’ Edward was carefully examining Igor from head to toe. ‘Robin’s not feeding you well enough, I see. You’re kind of skinny. Well, let’s hug again! I’ve missed you so much, Igor! Rusya, come to us. Come here! Don’t be shy!’ Edward was gesturing to his wife inviting her to join the ritual of friendly hugs. ‘Well, never mind, Professor, we’ll get you on track in a couple of days! I promise!’

‘Guys, I am very glad to see you! Let’s go to the car,’ Igor picked up the bag from Ruslana.

‘And you call this ancient piece a vehicle, Igor? I see you’ve completely lost yourselves in your prayers here.’

‘There you go! Your husband, as always... He’s not off his track. This isn’t Moscow, my dear. Your Mercedes, even if we were to deliver it here, still won’t move. There are no highways here.’

‘It’s obvious that everything is fine with the infrastructure in this place—we have already realized this flying in. Don’t you even doubt it. But I have to say, Igor, we didn’t come here to visit local so to say beauty shops’.

‘That’s it! Enough! I do object! Just arrived and start this *measure for measure* approach’.

Igor put his hand on his friend’s shoulder.

‘Well, of course! You and I are going to have a great weekend, my dear!’

‘What an amazing air is here after all! Ruslana took a deep

breath, closing her eyes.

‘Rusya, take care. This ground is shaky! *Amazing air* is the area of Mr Professor’s competence.’

‘My feelings in any case do not let me down, Ed. And if we compare it with the Moscow air... we are in the Garden of Eden.’

Having settled in the car, Igor instructed the digital assistant:

‘Soba, we’re going home.’

‘All right, Igor. Is there anything else I can do?’

‘Set the temperature to twenty two and ... Perhaps turn on Wagner’s *The Ride of the Valkyries*.’ Music started playing softly on the background.

‘The passenger in the back row has not fastened his seat belt. Please fasten your seat belt,’ the car’s digital voice requested. Ruslana obediently buckled herself in.

‘I assume that your musical preferences have not changed?’ Igor asked his friend.

‘Marvelous! I couldn’t have counted on a warmer welcome,’ with a smile Edward rolled up his eyes blissfully.

‘You’d better get ready, Ed. Robin listens to pieces that earplugs won’t help. This morning it just happened that I had to come back home unscheduled so to say...’

‘What do you expect of a girl, Igor? How is she? How is she doing?’

‘Well, everything is fine. She’s already getting up for the institute.’

‘Where does she want to study?’

‘I am very pleased with her choice—the Institute of Ecology in Odessa, oceanography specialty.

‘Following in your footsteps, it turns out?’

‘To some extent. Nearby, I would say.’

‘Great! But the enrolment slot has closed already. Isn’t it too late?’

‘We are planning for the next year’s admission.’

‘Oh, you guys... Everything is according to plan and in advance. Well done.’

‘Well, what about leaving your staff and going out for dinner? How’s the plan for you, guys?’ checking on the trip itinerary on a large information screen in the car, Igor tried to set the evening program.

‘I’m in. Ruslana, are you? Edward turned to his wife.

‘Of course. I need five minutes and I’ll be ready. Is Robin coming with us, Igor? It would be great to meet her.’

‘I’m afraid not. Our girl has new priorities now. Some guy showed up recently. An American, I think. What do you reckon she would prefer?’

‘Still, I hope we will definitely get to know her,’ Ruslana replied.

‘You think?! You say that your daughter is dating some new guy, and you don’t even know who he is, where he comes from and what his name is!’ Edward was confused.

‘You’re right, as always. I should have lunch with them or something,’ Igor agreed.

‘Of course you should, Igor. And the sooner the better. You’d wonder how we monitor our Alyona.’

‘Ed, it’s wishful thinking. We’re both here. Alyona is on her own in Moscow. What d’you think she is doing?’ Ruslana remarked reasonably.

‘I do not doubt a minute that my daughter went to the Central Library,’ the friends smiled.

A grey roadster pulled up to a residential village, stopping at Igor’s two-storey house, passengers left the car.

‘Now I understand why you decided to settle down here,’ Edward said, looking around.

The peaks of the snow-capped mountains, bathed in the pink sunset light, framed the perimeter behind the houses, safeguarding the homefront. The villagers could feel safe. It would not be easy to conquer the highest ridge on Earth unnoticed. The clouds, as if stuck on the rocky peaks, were hiding the exact indicator of the inaccessible height, leaving the brave souls who miscalculated their strength, face-to-face with their fate.

Following the setting sun, the temperature was going down as well. Puddles on the road confirmed the coming cold spell with a thin film of ice covering them. Descending the slope by the stairs of the giants, with the houses of the *Bholi* complex huddled, two more houses, also recently raised in the park, were located a few levels below. The snap of cold made the mountain air even more transparent and clean. Everything seemed to be flickering

around.

‘I won’t argue with you this time. It’s an amazing place here,’ Igor replied. ‘When I come here, you know, after a few days I begin to perceive things differently. Time flows differently. Watching news channels becomes completely irrelevant for me. Moreover, I’d say that I am beginning to treat the information flow in a somewhat lenient way, you know. I am nearly moved by the seriousness with which we in our the so-called civilized world perceive what is happening in society. Here you finally understand what is really important, and what is just meaningless hustle and bustle.’

So, yes, my friend, I am glad that fate has brought me here, where I can live as an individual, not merely as a member of a society with performance indicators that are measured online.’

Edward looked at Igor:

‘I see, you’ve planted deep roots here, taking in the philosophy of life... Ruslana, we have to be careful, and we definitely can’t stay here for a long time.’

‘Okay, okay,’ smiling to his friends, Igor pointed in the direction of the house. ‘Let’s go in at last, or we’ll freeze.’

Microplastic

The date of arrival of his friends fixed, Igor booked in advance the best table in a local restaurant—on the second floor near the window there was a great view of the canyon: *they’d definitely like it.*

The choice of a place was not particularly difficult. In a small village, there were simply no other alternatives. But there was no need for them either. The restaurant, more like a local pub in some English village, was full of people at the end of the working week. As, indeed, on any other day.

It was hard to remember a morning when one wouldn't notice, looking out of the window, skiers rushing to the lifts or just tourists walking around the village. This was the very idea of such small towns scattered across Nepal in its mountainous areas. Investors were ready to put money in the construction of clusters of small tourist centers, where scientific teams could be located as well. Everyone benefited—the flow of tourists, thinning out for a while from time to time, was compensated by permanent residents, for example, involved in research work, like Igor and his team.

Friday night is a special time, regardless of the point on the world map. The upcoming weekend was attracting people to get together. There was a buzz of conversations in the restaurant, with the music playing in the background finally concealing the words and voices, and competing with enthusiastic visitors by decibels of volume. Some young guy with an unruly beard, like a broom, a German judging by the accent, crawled to the panoramic window next to the table where Igor and his Moscow friends were sitting, and tried to explain something to his comrades pointing his finger at the window. A group of snowboarders sat nearby with large mugs of beer, blocking up

the aisle with their gear. One might have thought that it didn't matter in the end what sort of food was served there. But the chef clearly was of a different opinion about his mission. After reading complimentary reviews about the local cuisine, the whole area tried to get into the restaurant, including the two nearest villages.

'Now, tell us! How is your project going?'

'That's a good question, Ed,' Igor replied.

'Well, we don't do any other ones,' the second round of glasses of red wine finally reconciled them, allowing to relax.

'Our project is integrated into the global air composition monitoring system around the world. This station is not working in particular in the Himalayas just for nothing. It can be assumed that it is here that one of the cleanest ecological areas on the Earth is. But in fact, everything is somewhat different. In the southwest there is India, and in the north China. Our complex is located between two of the most active industrial zones on the planet. Depending on where the wind blows, we are always experiencing consequences either on one side or on the other. And we are literally experiencing and testing them. Our laboratory continuously monitors the composition of the atmosphere.'

'Well, that's it! Our mate got carried away!' Edward winked at Ruslana.

'You've asked the question yourself. So I'm telling you,' ignoring the sarcasm, Igor continued enthusiastically. 'What matters here? This is the key, the important moment,' he moved

closer to the table. ‘Over the past fifty years, we have made great progress on the environmental agenda. Suffice to mention just only one network of the ITER thermonuclear power plants all around the world.

This step alone has fundamentally changed the map of the energy system on the planet. And what is ITER? From an ecological point of view, this is a tangible reduction in the carbon footprint of humanity. And that in itself is priceless. And so far we are talking only about one example from a wide range of steps taken to improve the environmental situation.

‘Wait, Igor. And in such a case why are you... if ITER is such a great achievement, has changed everything around, what sort of negative environmental background from India and China are you talking about?’

‘Ed, let’s go step by step. We’ll get to that now. So,’ continued Igor, ‘as you know, the PAX artificial intelligence has brought in an invaluable gift to people—ITER, as Prometheus once gave us fire.’

‘What a rhetoric! Look at him!’ Edward laughed.

Not paying the slightest attention, Igor continued:

‘A network of decarbonizing installations on all the six continents where people are now leading active life. Recycling and disposal systems for all and everything— we are working hard on their efficiency, with greater depth of processing every year. The civilized world has practically stopped mining on the planet. In the first place, we use widely recycled components,

and secondly, as you know, we have mastered mining on the Moon, Mars and the asteroids. Over the past fifty years, we have recovered forestland in those areas where it was almost eradicated by negligent mining. A lot has been done to date. But there is an understanding that more needs to be done.'

'Igor, you might end in our Duma, or, at worst, sit in the Federation Council. Our senators are very fond of listening to the reports of the enlightened.

'I'm ready! But here's my question for you: are Duma and Senate yet active in Russia?'

'Uh-uh... My dear. It turns out things are so much neglected with you. You've completely lost your way here, that's what I see. They are active and very much so! What do you think, since today we are part of the United Federation of Nations, we no longer need to bother about our own state system!

Uh, no, my fellow comrade! It wouldn't have gone anywhere that way. Our entire federation would have gone to pieces in different directions. Anyway, what have you been doing here!? Can you imagine, Rusya, this person does not know the political system of his own country! You, Igor, are a political barbarian!'

'You are barbarians yourselves,' Igor smiled. 'My task is supra-confessional and cross-border. I need to clean up all the stench away from the planet that we managed to make a mess of in just a few hundred years, after millions of centuries of its development and prosperity.'

'This hat is not for a small head, isn't it?' after taking another

sip of wine, Edward suggested.

‘The task is so difficult, guys, I’ll tell you, that it hardly fits anyone. But someone has to try. Someone has to clean all the stables! Laugh all you want, but there really is enough work there for several generations. I’ll tell you what.’

‘And what is your main focus for the team now?’ Ruslana asked, her head resting on her hand.

‘Oh, guys, it looks like I’ve tired you a little with my story about...’

‘Not at all, Igor, on the contrary,’ Ruslana waved her hand, interrupting him.

‘And you seem also to be tired, you were on the road,’ Igor insisted on his own way.

‘Listen, we’re not tired. If you don’t want to reveal your secret projects, just say so.’

‘Ed, no secrets at all. We are an open organization. I am only glad to share the news,’ Igor continued enthusiastically. ‘What humanity has not been able to cope with so far—we have been working on this issue for more than a hundred years—is the problem of microplastics. At first glance, it may seem that we are talking about something not too serious to pay attention to and to invest heavily in the fight against this worldwide pandemic. But unfortunately, this is not the case. Based on the conducted research, the microplastic pollution is responsible for hundreds of thousands of people annually entering the risk zone of a wide range of dangerous diseases, ranging from obesity and up to

brain problems. Thanks to the Tracker, to our microchips, we of course are capable of timely cutting short these problems, but what to do with animals, with fish, what to do with the air we breathe. Here we come to the essence of the work our team is doing.’

‘Listen, Igor, it looks like another horror movie of some kind,’ Ruslana was happily eating another piece of juicy steak.’

‘I don’t want to kill your appetite, but I can’t help noting that, most likely, according to statistics, the piece of meat that you are about to swallow now also contains microplastics,’ Igor smiled at Ruslana, who stopped chewing. ‘This is not a movie for a while, friends. This is our reality. You go on chewing, Ruslana. Don’t be afraid.’

‘Come on, Igor,’ Ruslana protested. ‘You are saying all sorts of nasty things.’

‘I’m only telling the truth. But I agree with you—it’s difficult to find a substance on our planet nastier than this. The truth, as you know... oh well, no one needs this truth.’

‘Let’s say for a moment, Igor,’ said Edward. ‘What kind of technique would you suggest to combat this universal scourge?’

‘A small problem is that my answer will take an hour-long lecture. But, given your, so to speak, limitations, I will give you a brief squeeze.’

‘Thank you, Lord Protector! Come on, let me order you some more snacks. Otherwise, you’ll soon demote us into jellyfish,’ Edward began waving his hand to attract the waiter’s attention.

‘The thing is that microplastics surrounds us everywhere. Literally. In the water, in food, in the air, in the ground... well, literally everywhere! Could you have imagined, this parasite is even on Mt Everest! It is the plague of our century! How to fight it is the main question! We are improving the existing installation of decarbonizing units, complementing their functionality with appropriate filter elements. There are already more than six thousand such installations around the world today. The second and one of the key conditions: we are actively working together with petrochemical companies to ensure that their products have the minimal plastic decomposition period. This is where a whole bunch of problems comes in. Economics, as you know, determines the expediency of most, if not all, processes. Everything that implies an increase in the cost of goods has a negative impact on business. An equally controversial factor is long life of plastic products.’

Igor looked at his friends, finally exhausted with fatigue:

‘Oh no, guys, enough with this boredom. Let’s better call it a night and go to have some rest. Home and to bed! Eh?’

‘What are you talking about, Igor! You’re mad!’ Edward shook his head. ‘I’m for the continuation of the story! And what about you, Rusya? Ru-sya?’

‘It looks like Rusya... a couple more sips and she will finally surrender to the mercy of Morpheus.’ Igor looked at his friend’s wife, who was obviously starting to doze off, propping her head with her hand.

‘No! I’m here! I’m with you!’

‘Well, I see. That’s it! Let’s finish. You’ve had a rough day. You need some rest. Besides, you are not yet used to the local climate and thinned atmosphere. Even here, at an altitude of two thousand meters, the oxygen content is ten percent lower. And the jet lag as well! I’ve completely forgotten all the rules of hospitality for joy of meeting you.’

Edward and Ruslana finally stopped resisting, agreeing with Igor’s arguments.

‘Light frost in August! Invigorating, I must say!’

‘Yes, Rusya, this is not Moscow plus thirty for you. Clears your head at once. Wow, now I would like to have a roll in the snow... it reminds of a Russian banya!’

‘Ed, welcome for a nice snow in six months. There will be frost for you, and snow with plastic.’ Everyone laughed.

‘But you’d better promise to tell us your story! You must! Got it?’

‘Agreed, Ed,’ Igor placed his hand on chest. ‘I promise!’

‘Well, there you go! And where are all your cars? Where did you hide them all?’

‘So it’s all about efficiency again. Do you know how much land and building anything costs here?! I don’t know either. But I think it’s not cheap,’ Igor smiled. ‘Everything is thought out to the minor detail. Garages are built into the ground floor or basement level, as the width of each of the ledges does not allow for a

parking space. That's why the development of the area implies building townhouses, but not individual houses. Efficiency in everything! The name of our village could be followed by a slogan—*Bholi: effective all four seasons!*

'How does *Bholi* translate, Igor?' Ruslana asked.

'*Tomorrow* in Nepali. We are looking ahead, friends!'

Robin

'Igor, are you saying you haven't seen Robin since the moment you met us?'

'That's right, Edward. I do not know where she's gone! Damn it!' Igor was pacing briskly back and forth around the living room. Edward and Ruslana, sitting helplessly on the sofa, watched the growing nervousness of the girl's father. 'Maybe she is with this guy. I've been trying to find some information about him in her room, but there's nothing there. Right. I need to calm down and figure out what to do. Calm down and think.'

He sat down in a chair and closed his eyes for a couple of seconds. Edward and Ruslana sat frozen, so as not to interfere with him in any way.

'So that's it. First. I'm going to the hotel now. I'll try to find out from the staff if they know the guy with whom Robin might have been seen. Ed, could you go down to the sky lift and ask if anyone has seen her there?'

'Of course, Igor. We will help in any way we can.'

'I'm sorry, guys. But the situation like this is...'

‘Stop it. I hope Robin is okay. You know how it happens with teenagers. She’ll show up soon,” Edward was encouraging. ‘Calm down, don’t you worry. We’ll find out everything.’

‘I know how it is with teenagers. Don’t know how it is with my daughter. Okay. Guys, thank you.’

In 40 minutes, Igor and his two friends were at the Rescue Service department of the Bholi village.

‘Listen, Officer. The girl is seventeen years old. I’ve been trying to contact her since this morning. All in vain. Yesterday afternoon she was seen with a group in the camp at the level of three and a half thousand kilometers. We contacted the local services. They said they went higher to the next stage. Do you understand what this means?!’

‘First of all, sir, may I ask you to calm down. Secondly. The main word I hear is *went with the group*. So she’s not alone. Which is good. Okay?’

‘Well, quite possible,’ Igor agreed.

‘Here. Good. Further on. At both sites, at three and a half and at five kilometers, there are security services and medical personnel who monitor everyone. So, if any situation arises, everything will be under control. What are you so worried about, sir?’

‘Officer Roshan,’ Igor looked at the nameplate on his desk, ‘please listen to me. I’m telling you, there is a guy, I think an American, kind of a mountaineer. Do you understand? Robin,

my daughter, could have decided to climb with him to the very top. Do you understand? That's what I'm afraid of! She has no such experience. She is not ready for such difficult ascents. All I am asking is that you make an announcement that they are detained.'

'Listen... What's your name? Igor, on which basis can I make such a decision? Some guy, and even an American, and kind of like an American, kind of like a mountaineer... Well, you listen to yourself.'

'And I do listen! And I definitely understand that the situation implies the expediency of the actions to which I urge you. What do you reckon, Officer, what would be the best thing to do, and what sort of consequences would arise? Option one. You're not doing anything. The situation becomes negative—the girl has disappeared. What will be the consequence of this? Option two. You fix the problem. The group is found. Robin is delivered home. Everything ends well. In the worst case for you it's only about the fact that you've reacted in a timely manner to the legitimate request of the father to find a teenager. What do you choose, Officer Roshan?'

A rescue worker was rocking on a creaking chair. His eyes darting around the table, as if he was trying to find the answer to a question in the papers.

'All right, Mr. Igor Schweiko. I'll contact the base at five kilometers. Wait for me in the corridor, please,' he pointed to the door for the trio. 'And close it. Close it.'

‘Thank you, officer,’ Igor thanked him, leaving the small office.

‘Now we wait,’ exhausted, Igor sat down on a chair in the restaurant staring blankly out the window. They took the same table as last night. Lunch time was just coming up. The restaurant was yet half empty.

‘Igor, mate, let’s make our orders. We’ve got two hours to wait until the services check everything. As Officer Roshan said, nothing more could be done now. To be more precise, all other actions would be meaningless. So? Igor? Are you here?’ Edward put his hand on his friend’s arm.’

‘Yes, sorry, guys. I’ve ruined your whole weekend with this performance of mine. You haven’t come here to participate in the investigation of the adventures of my negligent daughter got into.’

‘We are glad to see you, Igor. And we’ll be glad to see Robin soon. Let’s make an order.’

‘Well, damn lucky guy,’ said Ruslana, when Igor went out to call his office. ‘How many years ago was there a tragedy with his wife here?’

‘Catherine died in 2178. That is, it turns out that eleven years have already passed. She froze on this damned mountain too. It was that a blizzard started suddenly. The temperature was below minus fifty. Only one person survived—a seasoned guide. You could imagine how he feels right now. It’s worse than a nightmare.’

‘My God! I wish everything ends well!’

‘So, Igor, what about your promise?’ Edward tried to distract and occupy the mind of his friend.

‘Of course. Do you remember what it was all about?’

‘Well, of course,’ Edward confirmed. ‘We’ve stopped at ... Rather, you finished up listing the steps that are being taken to combat cholera of the twenty-second century.’

‘The plague, Ed. But not the point. Oh well. So, actually, this is the question. We are working on the problem of the source of microplastics pollution with chemical enterprises and, at the same time, we are progressively solving the issue of cleaning the atmosphere from the relevant foreign inclusions. Extremely slow as it is, but the process is going on, gradually gaining momentum.

Here in the Himalayas, our laboratory has two main tasks to do—to develop and coordinate strategy and to monitor results. Here we take measurements, as is done in many other our branches around the world. So far, we lack a solution for only one component solution of the process—how to clean the ocean waters. We did manage the plastics garbage in the end. I mean plastic waste such as bottles, packaging, films and the like. The ocean has been cleared of this trash. But what to do with the microplastics that got into it, remains an open question. In this story it’s also surprising that this problem is more than a hundred and fifty years old. You can imagine the level of consciousness of our forefathers, who allowed the size of the plastic disaster to grow to such a state that, as they used to say, a whole continent

of trash was formed with the waste thrown into the ocean. This is simply unthinkable! Imagine—a garbage continent!

Edward has managed to get his way. Carried away by the discussion of the topic preoccupying him, his friend switched over his attention for a moment from the situation with Robin.

‘I see, mate. So maybe the problem in the ocean will be solved by itself when the content of the pollutant in the atmosphere gradually comes to naught?’

‘Your rating has been changed, Edward. Your potential makes me happy. You see into the root. One of the main working versions on the ocean currently is exactly this—do nothing. As if nothing. You’re absolutely right. Over time, in the absence of a source of new malicious injections into the ecosystem, the problem will be really resolved by itself. Based on the models, we worked out, it will take hundreds of years for this to happen. Which, of course, is frustrating. But at the moment, this is the main working and real program—to eliminate the source and wait. Allow the system to self-clean and recover.’

‘They say, Igor, you are working on another breakthrough project here.’

‘What do you mean?’

‘The *Weather* program,’ Edward looked carefully at Igor, trying to get the expression of his face.

‘Something else is interesting. How do you know about this program?’

‘Hmm. I’m a member of the Big Scientific Council just like

you are. Of course, I'm not in the upper bureau, like some, but still,' Edward smiled a little.

'Exactly. Sorry. I forgot completely. Yes, you're right—we're working. But the stage is still, I would say, an initial one. Our task is to develop a fundamental concept of a global weather management system. The task is superinteresting, but no less difficult, as one might assume.

'At least so. And how far have you come with this work? Unless, of course, it's another secret.'

'I've already told you, Ed, we don't have any special secrets. A global organization like ours can't be enclosed in some kind of a secrecy perimeter. Anyway, sooner or later, usually sooner, things leak somewhere somehow. As I noted, the stage of work is initial. It all comes down to financing.

According to preliminary estimates, the cost of the infrastructure that needs to be deployed for the initial launch of the system is comparable with the construction of a lunar base,' Ruslana whistled quietly.

'Absolutely. That's what I say. But the potential of the *Weather*, not in a shy way I may put it, is comparable to divine. You've probably heard that before, for example, on the occasion of big holidays, people could have dispersed the clouds. So, there you go—a clear example of the direct impact on the weather. People literally formed a local precipitation agenda with their own efforts and resources. Now imagine what we can achieve with the arsenal available to us. Judging by today's understanding

of the term *humanity*, we have almost limitless fossil resources in our hands, given mining processes that we carry on outside our planet. A network of meteorological satellites monitors the Earth, obviously, round the clock. We have already launched prototypes of weather satellites with specialized units capable of electromagnetic and thermal effects exerted on certain atmospheric areas of the planet, having a direct impact on the climate. This impact is provided in conjunction with a network of ground-based receiving and transmitting meteorological stations. We are able to carry out water desalination. Fundamentally, we know how and are already capable of changing the climate according to our needs and tasks. There's only one little thing left—all this now needs to be scaled up.

This story, of course, would have been impossible were it not for the computing capabilities of the PAX, as well as without the energy potential of the ITER thermonuclear installations. Well, where does it leave us? Intelligence plus energy hints humanity of the next level of existence for our species.

So, if everything goes according to plan, we have a chance to drink champagne, friends, at the top...' Igor looked at the communicator, which has been silent for the time being, 'at the headquarters of the United Federation of Nations in New York. However, we should be patient—we'll have to wait just for about a hundred years.'

'Well, I think we already have invitations from you. The place is secured.'

‘Of course it is, Ed. Sure. There’s something I wanted to ask you. Rather, ask for.’

‘Okay. Go on.’

‘The oceanarium in Odessa is one of the best in the world, am I right?’

‘I would rather say, Igor, the best in the world. Oddly enough, given its location on the coastline of the Black Sea. But possibly it’s the case when something is despite of, not because.’

‘This is your domain, are you in contact with them?’

‘Well, not exactly. We do joint programs. I’m familiar with them, of course. We’re working... Well, why? What is it about?’

‘Could you check if there is an opportunity to get Robin in there for some training...’

The communicator rang and vibrated, abruptly interrupting the conversation and notifying the owner of an incoming video call request from the local rescue service. The three people at the table fixed their eyes on him.

Igor picked up the communicator and pressed the *Reply* button:

‘Speaking, Officer Roshan.’

Before: The Moon

Off we go! (Poyekhali!)—a landmark, which 200 years ago manifested the beginning of a new era in the development of mankind. The first words uttered by a man of the world—Yuri Gagarin—opened a new page in space research.

Yuri Gagarin is the first cosmonaut of the planet Earth.

Sergey Korolev is a scientist, a rocket engineer and spacecraft designer, who determined the vector of space exploration development for decades.

Valentina Tereshkova and Alexey Leonov are the first female cosmonaut and the first cosmonaut to go into outer space.

Neil Armstrong and Buzz Aldrin are the first representatives of humanity to land on the Moon.

Elon Musk is an entrepreneur and an engineer who has laid the foundation for the Mars program.

Today 8,934 people are working at the Lunar base.

Today 1,021 people are working at the Martian base.

19,576: the number of cosmonauts and astronauts, scientists and space tourists who have been beyond the Earth in space, on the Moon and on Mars by 2163.

0.00016%: so small is the fraction of lucky representatives of our home planet who have been outside of it to date.

You can write your name in the history of mankind!

Learn more about the program of your space trip to the Moon!

For over an hour Lewis has been carefully studying information on the website of the *New Horizons* company, offering space travel services. Detailed video clips, the training program and the flight itself, the Lunar base visits program, cross-surface riding trips on the satellite, reviews by space tourists who had decided to travel—everything on the website of the travel agency was convincing you of the simplicity and affordability of space travel. Your dream is one step away from realization—just click the *Buy* button.

‘Well, yes, of course, everything is quick, straightforward and extremely interesting. One can hardly expect the interested party to be objective. The question is, what is this company and its program really like...’ Lewis was pondering.

‘Show me some reviews on the *New Horizons* company related to flights to the lunar base in 2163, Don,’ Lewis turned to his digital assistant.

‘Here you are, Lewis. I chose several reviews about trips to the Moon with the most number of views,’ Don responded immediately, displaying the requested information on the tablet.

It was worth the mad money I paid for this voyage! If you haven't been to space, if you haven't been to the Moon—consider you have not lived at all! As soon as you get your 100K bucks, go ahead, guys, to the Moon! Ha-ha-ha ... If you want to learn more about my journey, send me a private message, I'll be glad to share my experience! —Robin White, Oklahoma, U.S.

We decided to go to the Moon on our honeymoon! Oh my God,

I'm absolutely thrilled! Our Earth is a beauty when you look at it from the Moon! A 'Blue Marble'—how correct poetically said! Words fail me. And besides, gravity is 6 times weaker on the Moon... women, I think, will understand me :) Everyone fly to the Moon!!! I want to go there again! —Ira Baki, UAE.

A day on the road. The entertainment program on the satellite takes three days. One day on the way home. As for me, this dusty lump of dirt is not worth the money paid. It's boring, gray, there's nowhere to put your eyes on. The people who work there are strange or something... I don't know, I was bored. I will not recommend this to anyone. One would better to go to Lake Baikal in Irkutsk or Sochi, at least there are normal hotels there. Rip-off! I want my money back!’, Ivan Rosin, Bulgaria.

‘Aren't there any normal reviews, Don?’ scrolling down through the selected list, Lewis noted irritated.

‘Lewis, please specify which criteria for selecting reviews I should prioritize to meet your expectations.’

‘Don, you're so... smart!’

‘I'm glad you appreciate my work, Lewis.’

‘Stupid idiot! If you want something done in a normal way, do it yourself then. We'll sort it out.’ Lewis continued to search for information on the trip to the Moon and reviews of the *moonlanded*, as space tourists who visited the international lunar base were called.

His attention was distracted by the program, which he used to track the indices of the family investment portfolio, notifying

him that *'Sebra Productions shares collapsed by 7%!!!'*

'Damn it!' clicking on the message, Lewis switched to the application to check the current status of the stake in the Sebra European company, the one which was recommended to him for purchase by former colleagues.

New York

Lewis went into the kitchen, where his wife was already having her breakfast. Meryl was sitting on one of the high bar stools at a large massive island table and was enjoying her morning portion of fruit salad. Pieces of mango, pear, apple, peach and melon, raspberry and blueberry rolled in a bowl in balls, carefully prepared by Paola from the list of recipes *Everything as the lady likes*. There was another smaller bowl of yogurt nearby, which was waiting for its turn to come.

'Good morning, Meryl,' Lewis greeted his wife.

'Hello, dear! How did you sleep?'

'Well, not really good. I've been tossing and turning since three AM.'

'It's taking ages to send a message,' Meryl smiled.

'Well, yes... And how are you?'

'Great, thanks! I slept well. Cheerful and ready for new achievements!'

'Well, at least someone should be.'

Meryl finished with the salad and set aside the plate with the cutlery. Paola came up to the table and took away the empty

bowl.

‘Good morning, Lewis. Your breakfast is ready. Paola pointed to the plates of banana and porridge on the table next to Meryl, with the cutlery on a linen napkin.

‘Thanks, Paola.’

‘Bon appétit, Lewis,’ Paola said in a welcoming way, carrying away the used dishes.

‘What a marvel she is,’ Lewis said softly to his wife.

‘She’s been a marvel with us for ten years, Lewis.’

‘Yes, but one doesn’t get tired of miracles. Isn’t it true? Especially when someone takes care of all the household troubles and worries.’

A smile appeared on Paola’s faceplate. She, of course, have heard everything and was glad that the master positively evaluated her work—it means she is doing everything the right way.

‘What about going for a walk before lunch today, Meryl?’

‘I’m in. With pleasure. And the morning weather is promising!’

‘Well, that’s settled. Then let’s do it after breakfast, sometime about nine. There shouldn’t be many tourists in the park at this time. We can take a quiet walk.’

Having finished her breakfast, Meryl went up to the window. Crossing her stringy, thin arms over her chest, she closed her eyes, as if for a moment disappearing in the warm waves of sunlight.

Spring, day after day, was gaining her rights back from its predecessor. The changing shades in Central Park were barely noticeable—from the protective suspended animation of dark brown, to the newly awakening timid light green. The budding greenery of the park, following the ancient call of natural cycles, was clearly affirming the long-established laws of life. A flock of birds back home, was spinning over the island of a carefully preserved urban oasis, finally dispelling the last doubts—spring had come!

One could not deny that the city had changed a lot since Meryl and Lewis moved to New York. It was over 70 years that Meryl's father had passed away in Washington, and almost immediately they decided to move into the house they had always dreamed of. The exorbitant cost of apartments on the 67th floor in the 432 *Park Avenue* residence did not stop the newlyweds. When they received a realtor's offer, even the fact that Lewis could not come to terms with the obviously inflated price didn't stop them from accepting it. The financial assets of Meryl's father (she came onto the inheritance as his only daughter) allowed her to never worry about money in their family again.

Meryl was looking at an unnaturally flat rectangle of wildlife, inscribed in the concrete walls of the city surrounding it from all sides. No one dared to interfere with the famous park area of the capital of the world in any way. This pompous name for New York came into life in official sources after the *Great Reform* of 2107. It was then that the landscape of the political map of the

world and the system of administrative management had been transformed, and a new flag was raised over the UN headquarters becoming a symbol of a new era.

The United Federation of Nations, a structure developed with the participation of artificial intelligence of the PAX quantum system, determined the roadmap for further development of the mankind. An important point on it was Central Park in New York, where the leaders of the world enjoyed walking unnoticed, discussing state issues, as well as ever inexhaustible flow of citizens and countless tourists, coming to the city from all the six continents.

From time to time plans for possible reconstructions of the park leaked to the press, as a rule causing an unambiguous reaction from New Yorkers. When it seemed that there was no way to avoid developers' construction plans in the park, the citizens started protesting so violently that the mayor's office had just one thing left to do—allocate additional funds from the budget for the development and maintenance of one of the most famous park areas in the world. Thinking of New York without Central Park was like admitting the possibility of retail space development in the Kremlin ensemble in Moscow. The shortage of a priceless asset—land in Manhattan—was made up by resorting to the latest engineering technologies and achievements. Skyscrapers were getting higher, and the underground urban infrastructure has been developed more actively.

New York had long come back into game stealing the leadership from St. Petersburg in Europe as the city with the tallest buildings in the world, holding the first three prizes over the past 15 years.

One kilometer and 276 meters—a seven-year project for the construction of the tallest building on the planet had been completed, finally determining the primacy of New York in this category.

The underground New York was also growing dynamically. The architectural projects implemented below the overground city line were gaining awards repeatedly at distinguished international competitions. The urban infrastructure was going down and down underground, forming a new urban culture and lifestyle. One of the defining conditions for such a transformation of urban development was primarily the economic factor. The inhabitants of New York underground levels were far from the most well-off residents. The city administration was trying to smooth out any hints about their social status.

All the details were important. Even with such a minor thing as the levels numbering, a mirror approach was adopted: the last level, the deepest, was marked as the first one, and vice versa—the closest to the ground line of the city became the last. Thirty seven levels—such was the depth of the urban infrastructure at the time.

More than 25 million residents of New York and almost 50 million in the agglomeration—the *Big Apple* has turned into a

huge anthill.

Such a change was hardly to be missed. Especially looking from the height of the 67th floor. The city was no longer lying in front of your feet watching it from a bird's-eye view. They have witnessed the transformation of the New York architecture, when its historical center was treated with respect, shifting the accents of modern high-rise buildings to areas that used to be called the periphery.

Mary liked watching from the windows of her house the changes in the urban landscape, the birth of new giants of glass and concrete. She liked to pick up binoculars and used to spend time looking at the construction of high-rise buildings on the horizon.

Meryl and Lewis loved New York. Their children were raised there, their grandson was growing up, sometimes visiting his grandparents. It was there that they made their careers—she as an art critic on modern painting, and he as a financial broker. There they felt at home and safe.

Smiling, Meryl looked down at the 57th Street—the city was coming to life, busy with morning chores.

‘Enjoy your meal, Lewis. I’ll see you in... an hour and a half,’ checking the time, Meryl went to clean herself up.

Walk

Walking at a fast pace as always, Lewis and Mary headed towards the park. They liked to combine chatting about nothing

and near-athletic fitness session.

‘How’s your book going on?’ asked Meryl, crossing the street and looking around.

‘You know, Meryl, it’s much more complicated and much slower than I would have thought,’ Lewis replied. ‘I understand the general structure, I understand the characters’ personalities, I want to make the story about. I’ve already jotted down a couple of chapters. But what doesn’t work for me at all so far is the beginning. I don’t understand how to plot this whole story. And in general, I’d say this writer’s business is a much more difficult job. Sit down, write, Pulitzer... Unfortunately, that’s not how it works.’

‘It always seems easy when we stand by and watch someone working.’

‘Understanding the truth does not make the tempting mirage of self-deception less tempting, Meryl.

It’s so nice to believe that so easily pictured achievements of the series heroes or feats of the brave in popular novels you could repeat without much effort in your own life.’

‘There is definitely no reason for you to be mistaken about this, given your experience in business. Your company showed results above the market by 15–20 points. Did such indicators come easily for you? I have slightly different memories of this period of our life.’

‘Devote your life to what you really like, professionalism, diligence and continuous

development—the secret of success known to everyone but, in fact, an absolutely useless program of action.’

‘I’m afraid, Lewis, there’s no need for such complexities for most of us at all. Why overcome our fears and weakness, why do real work on ourselves, force ourselves to do something, go somewhere, read something... often we are not ready even for minimal restrictions in our own interests. So how many pages have you written already?’

‘About 15...’ Lewis smiled and they both laughed.

Meryl and Lewis came up to the first lake on one of their standard walking routes in the park. There have been several of these developed over the years. Depending on the entry point, the weather, the mood, the crowd—all the reasons for choosing the optimal path were taken into account and thought out.

‘D’you remember, Meryl, that we have an anniversary this year?’

‘Which one?’ Meryl looked at her husband.

‘The anniversary of our life together with you, dear. And the wedding anniversary.’

‘Oh, my God. I forgot, of course! And why are you talking about it so much in advance?’

‘I thought that we should celebrate such a significant anniversary in a special way?’

‘And how long have we been married, dear?’

‘It will soon be 75 years!’

‘My God! Who would have thought that we would put up with

each other for so long! Such relationships are not at all in favour among young people today—no one would live more than one year together,’ Meryl smiled. ‘On the other hand, I’m surprised that you keep in mind all this. As the Washington Post called you: *The first of the best. The broker that everyone wants.*’

‘Yeah. Something like that. But that was a long time ago.’

‘Talent, dear, is only gaining strength over time.’

‘Almost like a good whiskey. The main thing is not to forget about the correct storage temperature.’

‘So what’s your idea, Lewis?’

‘I think we should celebrate such a date in a special way.’

‘And which one, for example?’

‘We haven’t travelled together for a long time. What would you say if you and me would have a chance to admire, for example, the lunar landscape.’

‘Lewis, why waste our time. I suggest we get ready for the Martian mission right away,’ Meryl answered ironically.

‘I admit to having also considered this option. But this seems overly complicated though.’

Meryl stopped and looked at her husband:

‘Are you serious after all? At our 170 something we still can make astronauts?’

‘Nice joke. I like it. But yes, I’m serious.’

‘OK. If you are serious, then we need to think about it seriously. Well, really, technically, would they let old people like you and me apply for space flights?’ Meryl asked.

‘You’re in great physical shape. It will only benefit me to shape up a bit. I wouldn’t have thought there will be any questions about this, Meryl.’

‘Very well. There may be something to it. Let’s look at the details of this story. Would you please send me the program and a description of this lunar journey. I will also have a look at it, and we will discuss your idea in detail and thoroughly.’

‘Agreed!’

‘And how much we are talking?’ Meryl decided to clarify.

‘To be honest, I was surprised. The prices turned out to be quite affordable. I thought the idea would require serious investments. But the price starts from only one hundred thousand dollars. Of course, depending on the level of comfort, the various elements of the program available for selection, the total price will change significantly, but in general, everything is reasonable and justified. If desired, almost anyone can fly to the Moon today. With Mars, for example, the story is somewhat different. A one-way ticket is already 10 times more expensive. And the flight itself lasts about two weeks, not to mention all the risks accompanying the space travel. I think with the lunar program they make it by quantities, given its relatively low cost for tourists.’

‘Clear, Lewis. Let’s see. It might be interesting.’

Having passed by The Metropolitan Museum, Meryl and Lewis came to the *Jacqueline Kennedy Onassis Reservoir*. The ducks bustled in anticipation of a hearty breakfast noticing an approaching group of tourists, who were immediately

happy to fulfill the wishes of the experienced local feathered manipulators.

The park employee quickly approached the generous company distributing bread to the birds:

‘You can’t feed the ducks! It is strictly forbidden to throw anything into the water! You can see the notice here—*It is forbidden to feed birds!*’

‘It’s just bread!’ the father of the family stood up for the children having fun.

‘I’ve clearly told you, sir! Ducks will be obese! We give them everything they need on a schedule. Put away your food and please step away from the fence!’

‘Good, good! Don’t you worry so much.’

‘Back home by car?’ Meryl suggested.

Lewis checked the activity rings on his watch:

‘Today we have completed our minimum exercising norm—over 40 minutes walking. So we may also go by car.’

They left the park, crossed the roadway and, approaching the Guggenheim Museum, booked a taxi:

‘Get the capsule home, Don,’ Lewis instructed the digital assistant, bringing his wristwatch closer to his face.

Meryl looked at the museum building, where tourists were already beginning to gather, lining up in a snaky way to the ticket office: *‘Back to work tomorrow. Good!’*

The capsule drove up silently and the doors opened, inviting them to enter the cabin.

Museum

‘Good morning, Mrs Stern,’ with a welcoming smile, Tora, the museum administrator, handed Meryl a weighty folder with some papers straight away as they were passing through a spacious main hall.

‘Good morning, Tora. What’s it?’

‘And this is a project for the opening of a new exhibition in Milan. They offered us sending our Kandinsky paintings. They have a young European modernists biennial planned there at the end of May. They believe that Kandinsky can perfectly demonstrate the potential of new works.’

‘I have no doubt that it can. Kandinsky, however, has nothing to do with the Modernists. But it doesn’t matter anyway. Not really sophisticated guys they are. Have they really put it like *we need the right background for new works?*’

‘Well, no, of course not, Meryl. This is just my brief for you. So that you don’t waste your time getting into all the details.’

‘I see. And what do you think?’

‘Well, I think we may consider their request.’

‘Good. Thank you, Tora. Yet I will look at all the information sent to us on the project and will let you know my opinion. How much time do we have?’

‘Meryl, I don’t know... really. I think we should decide within a week.’

‘Agreed.’

Tora walked with Meryl to the second floor of the Guggenheim Museum, where staff offices were located:

‘Well, I gonna go. I’ve got things to do. Ok? If anything, you call me please!’

‘All right, dear. Thanks.’

Meryl walked over to her desk, which was littered with papers, folders, sketches, thick albums. ‘I’d need to find some time and sort out all this mess. The table will someday collapse under the weight of great names and their equally significant works. *The choice on the picture—to show or not to show, is not an easy one, of course, but I just feel sorry for the table...*’ looking at the mess in her workplace, Meryl was making fun of herself. Carefully, not to ruin the pile, she put the new folder handed over by Tora on a small table next to her desk and opened the tablet, getting ready for the analysis of mail, all kinds of appeals, checking meetings plans and similar administrative routine.

‘Hello, Meryl! What’s up? When are you going to show us anything new?! All same old stuff on the walls!’ Robert roared with laughter, greeting his colleague.

‘Hi, Rob! Yes, everything is fine! Thanks! How are you? Recovered, as I see?!’ Meryl stood up, greeting the old friend, whom she had known since her last job, for more than 30 years.’

‘Oh, Meryl, thank you. It’s all good. My leg almost doesn’t hurt anymore. The doctors say that in a couple of weeks I won’t even remember about this joint problem.’

‘What can I say, we’ll count on it. I’m glad you’re okay!’

‘How’s Lewis doing? How’s his book coming along? I remember him telling me something about a detective story, about a financial fraud... something very intriguing. We discussed it with him at the reception, here at the museum. I think a couple of months have already passed.’

‘Oh, Rob, it’s going on, but I understand that it’s slow.’

‘*So I understand*—don’t you really know what your husband’s doing?’ Robert frowned exemplary.

‘I know that he has not progressed very far. So I don’t want to bother him asking questions again and again.’

‘Ah, I see, Meryl. Well, here, you know how it happens... From the outside, it seems to all of us that the job is not that difficult. One, two and you’re done.’

‘Well, I think, Rob, that’s how Lewis has imagined this project to be. But you’re probably right—he didn’t fully appreciate the complexity of this venture. You know, if he undertakes anything, he usually gets the job done. Let’s give him some more time,’ smiled Meryl.

‘Since he has retired, he feels a little uneasy. I think Lewis still feels out of place. It is important for him to understand that what he is doing is needed and in demand. That his work is useful and does good.’

‘Like we all feel, Meryl.’

‘Of course. But you know that Lewis has been active and worked hard all his life. In his new status of a *pensioner* he is uncomfortable.’

‘Okay, I won’t distract you any more, Meryl. As I see it, you have a couple of things to work on here,’ Robert looked at Meryl’s cluttered desk and winked at her. ‘We’ll chat later at lunch! And you’d better change this horrible exposition on the fifth line! A mere disgrace!’ They laughed.

‘See you again, dear!’

The spaceport

The journey from home to the spaceport in New Mexico, located near Upham, with transfers and waiting took about five hours. Fifteen minutes took Meryl and Lewis to get to the Obama International Train Station, located on the thirty-seventh underground level not far from the house.

A high-speed shuttle from New York delivered them in 4 hours to El Paso. And then, by the capsule waiting for them, they finally reached the spaceport *America*.

Of course, it would be possible to fly by plane from the *Kennedy Airport* to the destination direct. It would have been even a little faster—might have saved two hours. But Meryl preferred trains.

And the journey itself, the feel of being *on the road*, pleased them. They often preferred more complex and long tourist routes. So that to see more of interesting things. The spaceport complex of buildings, its infrastructure, rather resembled a large international airport, except that the terminals were a little smaller, and the sound effect at the launch of spaceships worried

the local birds more. Initially, *America* was conceived as a small private project. But over time, when flights and space tourism transformed from billionaires' hobby at the beginning of the 21st century into big business, the spaceport had grown greatly. Direct flights from all over the world were accepted there, including hypersonic aircrafts which required special servicing, a terminal for NASA, Roscosmos, European, Chinese and Japanese space programs came to life. A little later, the military also pulled up with their tasks—the launching site did not reject budget money. So, once a modest and lonely, eternally idle hangar in the desert, in 150 years since the start of operation *America* has grown into a huge complex, a modern space hub, covering an area of 5,000 hectares, becoming the largest logistics center in the world. Near space and international space stations, various tourist destinations, including the Moon and Mars, launches for scientific research and military missions—about 10 launches were made from the site every day.

‘Mrs and Mr Podger, we are glad to welcome you at the *Spaceport America*,’ smiling broadly a young guy greeted Meryl and Lewis at the hotel complex entrance. ‘My name is Bo Eridon. I am at your complete disposal throughout the day. My main job is to provide you with comprehensive assistance and support in preparation for your flight to the Moon, which start, let me remind you, is scheduled for the evening, at 18:00.’

‘Hi, Bo,’ Lewis held out his hand, and then Meryl greeted him too. ‘Glad to meet you.’

‘How did you get to El Paso? Are you tired at all?’

‘It’s fine, Bo!’ Meryl replied cheerfully. ‘What’s next on the program? May we have the details please.’

‘Yes, of course, Mrs Podger.’

‘My last name is Stern. I didn’t take my husband’s last name,’ Meryl corrected him.

‘Oh, I’m sorry, Mrs Stern. In the documents both you and your husband are listed as Podger. I will definitely make the required corrections.’

‘No problem, dear. It’s all right. I remember my husband’s last name, of course, but mine is Stern. You may call me Meryl. And Mr Podger is Lewis.’

‘Thank you, Meryl. The main program we’re having for today is as follows. It’s lunchtime now and I’m glad to have the opportunity to offer you lunch at our magnificent *Como* restaurant, where Chef Peter is cooking. He has two Michelin stars! I hope you will like his cuisine.’

‘I have no doubt at all, dear. And what’s next?’ The three of them walked up to the elevator in the spacious hotel lobby.

‘Next, I am ready to give you a personal drone tour of the spaceport complex. After that, we will offer you a short briefing and an interview with a doctor. And the time to be ready for the start will come. At 17:30, all passengers should be already in their seats in the spaceship.’

‘Lunch, excursion, doctor, briefing, start—is that right, Bo?’ said Lewis.

‘That’s right, sir!’

‘Great. I suggest we do it this way. Right after lunch, Bo, please come over. We’ll be waiting for you,’ Lewis and Meryl stopped in front of the door to the room.

‘All right, Mr Podger. The restaurant is on the 17th floor. Two floors below.’

‘We’ll order a room service. Thank you, Bo,’ Meryl answered, opening the door.

‘I’ll send a waiter right away for you, Mrs Stern.’

A little more than an hour later, a four-seat drone, buzzing heavily, lifted the three passengers into the sky. It was quiet in the cabin—nothing distracted from conversations and exploration of the sights of the *America* spaceport. The drone took a position at the altitude of 500–600 meters, the most convenient observation level to watch what was happening below, on the grounds of the complex.

The security in the airspace of the spaceport was the function of a dispatcher control system. The movement of flying objects in the perimeter of the complex or approaching it was monitored online. Nothing should be missed, and all actions should be coordinated. Spaceships starting from the site and coming back, transport and passenger planes, sightseeing drones and security drones, even birds—the system was recording and tracking the movement of all the objects in the sky. If necessary, amendments were made to flight plans or to the sequence of take-offs and landings. Security drones interacted with biological objects, as

birds were listed in the system, driving away flocks and single individuals. Accidents were unacceptable. The price of a mistake meant, at best, multimillion dollar losses. No one even thought about negative scenarios, preventing such extreme situations.

‘The *Equilibrium* spaceship will take off now from runway No. 1—please look to the right,’ Bo pointed with his hand.

Meryl and Lewis turned curiously in the direction indicated by the steward. At the beginning of the runaway strip, the spaceship was waiting for the command to take off. The disproportionately large diameter of the ship’s hull in comparison with the relatively short wings raised doubts about the possibility of fulfilling the first stage of the flight plan—to take off.

The drone with passengers was hovering at a safe distance from the runway. Lewis noticed a dozen more flying vehicles hovering in the air and eagerly awaiting the performance to start. They were watching the event from a perfect angle, as if they were sitting at home in the living room.

The propulsion system of a spacecraft consisted of two main parts. To accelerate and get off the runway, accelerators built into the wings were primarily used. Their position, the inclination relative to the wing, was adjusted depending on the take-off stage. At the beginning, the position of the engines was fixed in parallel to the ground. As the speed increased, the angle changed so as to more quickly provide the required lift to get off the ground, compensating for the short wing geometry and the heavy weight of the spacecraft. The tail

engines at this stage performed only an auxiliary role. When reaching the stratosphere, at the level of 15,000 meters, the main accelerating engines were started to enable exit to outer space. The creation of such a shuttle spacecraft capable of taking off independently, going into outer space and smoothly descending into the atmosphere of the planet, landing on the runway, would be impossible without the involvement of the power of the PAX quantum computer. Artificial intelligence helped to perfect the early development of space shuttles, increasing their operational characteristics, reliability and safety. A solution was also found to one of the key tasks hindering the development of space travel—an efficient fuel and propulsion systems were developed. Previously, placing a payload into the Earth orbit was expensive, entailed significant time for preparation, and in addition caused damage to the environment. Fuel liquefaction to high degree and a hybrid accelerator system combining the potential of nuclear and classic jet engines—the solution suggested by PAX, allowed humanity to take the next step in space exploration. Theoretically, a fully fueled spaceship could take off and land twice without refueling and additional maintenance. A technological breakthrough determined the possibility of incredibly rapid development of space tourism as well, which gave impetus to the entire industry. The economy, as had been always before, served as the main sponsor and motivator of progress.

The booster engines of the spaceship, which Meryl and Lewis

were watching, started working at full power. Clouds of dust rose. The spaceship began accelerating rapidly and after 10-15 seconds it took off into the air, starting the flight. After a couple of minutes, the *Equilibrium* had already turned into a dot that could only be tracked by the thin white trail left by the engines.

‘It looks a little casual somehow,’ Lewis looked at Meryl. ‘Don’t you think so, Meryl?’

‘I’m really glad about that, Lewis. Imagine the roar of engines, clouds of exhaust gases, crowds of cheering people greeting the start... To be honest, I would not be ready to go to such a feat—to be on board a rocket, the successful launch of which causes such a storm of emotions and delight. So it’s wonderful that it’s an everyday routine.’

Bo smiled. The tour continued further on.

‘There are four operating runways in the spaceport: two for airplanes and two for spaceships. At the moment, two more are under construction—one for each of the assignments. Every year the number of launches is coming up. Over ten years, we would expect that spaceships will take off at least once per hour. That is, it will double. Taking into account the need for backup strips, we will put into operation at least another one, plus these which construction has already started. Such indicators as the number of projected launches, the overall increase on the load of the spaceport, imply putting into operation new terminals.

Here, on the site to the right, below us,’ Bo pointed at the vacant plot already prepared for construction under the drone,

‘the fifth terminal for servicing tourists will be built in the very near future. Moreover, I am glad that I can tell you about one of the new and unique projects that our company is currently developing. Work is underway at the final stage now, to launch a new route: Earth–Venus! Just imagine an amazing space trip to our sister Venus!’ Bo said solemnly.

‘The guy is overacting a little...’ Meryl thought and answered:

‘Bo, by this time I will probably be another exhibit in the family columbarium. And on the other hand, you can’t land on Venus. What will tourists do there?’

Mrs Stern, I have no doubt that after the lunar program, you will definitely decide to fly to Mars and Venus when this new amazing travel destination is opened. We would expect this route to provoke no less interest than flights to Mars. As for the travel program, you are right, it really will not work to land on the surface. But to observe the atmosphere of the planet with your own eyes, to see its surface from the orbit with the help of scientific instruments, to take part in a number of unique experiments—all this is very much in demand now with our space travellers. In addition, the program of the flight to Venus will include the study of our star—the Sun. The orbit of Venus comes much closer to the Sun. It will be a unique experience.

‘Thank you, Bo, for your optimism and for the advertising. Who knows, maybe Lewis and I getting on in years will really become active space explorers of the solar system. Let’s see how our first lunar journey ends.’

Off we go!

A signal, preceding an announcement sounded in the cabin:

‘Dear passengers, we are ready to start. The flight will start in a few seconds. Please make sure that your seat belts are fastened, that you have put your hand luggage on the shelf above your seat. All your belongings must be put away and securely fixed.’

Meryl took Lewis’s hand (he was sitting to her right, by the aisle between the passenger seats) and squeezed it hard. Lewis was no less tense.

‘Meryl, don’t worry. It’s okay,’ he whispered in her ear. ‘Statistics show that yet there hasn’t been a single incident related to the new generation of spaceships. And they have been flying for over 10 years now.’

‘You’ve found the words to calm me down, Lewis. *There hasn’t been yet*—we can be part of that very first case.’

‘Everything will be fine.’

The whole machine suddenly began accelerating. Fastened with five-point seat belts, they were pressed into their seats. A few seconds and they felt lifting off the ground. In the porthole, the earth was rapidly moving away. A couple more seconds and the clouds were also left behind. The monitor flashed the current speed and altitude indicators, the number of seconds since the start. The scheme on the screen displayed the current stage of the flight: on the monitor, the spacecraft quickly passed the blue zone, approaching the next, saturated blue—the *Stratosphere*.

Bang! A strong push in the back! Everything was shaking and buzzing. Meryl closed her eyes. Her lips moved soundlessly. Hands wet. The ship was breaking out of the grip of the Earth's gravity.

Lewis looked out the cabin window: 'Everything is getting black. Somehow I feel bad...'. He wanted to raise his hand to look at the watch—to check the pulse and blood pressure—but he couldn't. *Hands of stone. Would not lift. We're going out into space! Oh, my God, my God! How scary!*

Everything began to quiet down. The windows went almost black. They were lifted up from their seats. Everything and everyone calmed down. Lewis would love to change. He was sweating all over.

'Dear passengers, *Ezo-4* is reaching outer space. From this moment on, you are astronauts officially! Congratulations to you!'

A calm, pleasant female voice out of the loudspeakers was reassuring the excited passengers:

'The flight is nominal. The approach time to the international space station *Federation* and docking will take no more than one hour. You can move freely around the cabin and enjoy the views of the planet Earth. We ask you to be careful when moving around the cabin of the ship in zero gravity. Please show respect to other passengers and maintain order.'

Bucked up everyone, and a commotion began. Having unbuckled from the seats, people began to flounder in zero

gravity, trying to move away from their seats. Most of the passengers were adults, but there was no difference from children now.

Launch acceleration, fear and anxiety were replaced by delight, joy and laughter. Someone let water run through the cabin of the ship, which scattered in all directions in transparent, shapeless balls. A boy floated over the heads of Lewis and Meryl, casting mischievous glances at them. Meryl also came to her senses and looked out the window at the amazing beauty of the views of the planet: *'It was worth flying for this.'*

Lewis called the steward:

'How can I help you, Mr Podger?' hovering over Lewis' head, the young man asked.

'John,' Lewis read his name on the badge, 'do you have a spare set of clothes to change for me?'

'Yes, of course, sir. I'll get everything ready for you and invite you to the bathroom in a minute.'

'Thank you, John.'

'Mrs Stern, is there anything I can do for you?' The steward turned to Meryl.

'Yes, I would have thought so. Could I have some water, no gas please. I feel absolutely dry.'

'Of course, Mrs Stern.'

Meryl and Lewis were sitting together in the front row of the cabin a little apart from the other passengers. Their seats were wider, with more personal adjustment choices available. First

class passenger service implied a personal steward. Money gave wealthy travellers some privileges even in space.

‘Dear passengers, to the left of *Ezo-4* you can observe the *Federation* international space station. We’ll dock to the station in 15 minutes. Please take your seats and fasten your seat belts.’

The modules of the *Federation* station were put into operation progressively, one ring after another. There were already eleven active modules, apart from the other two, work on which has been in full swing in four shifts non stop.

‘Reminds me a bit of the Guggenheim Museum, if only there were more levels to come on top. Don’t you think so, Lewis?’ Meryl turned to her husband.

‘Well, yes, the same tin can, only with lights, and everything is spinning,’ Lewis replied ironically.

‘You’re yourself the can!’

‘John,’ Meryl addressed the steward, ‘could you tell me which module we’re staying in?’

‘Mrs Stern, our ring is number six, counting from the left side. Up to one hundred people can be accommodated in each ring at a time. And as a rule all modules are fully booked—there are no vacancies. In total, there are almost 900 employees working at the station now. The remaining seats are reserved for guests.’

‘John, what are these little barrels? There, near the station.’ Meryl pointed to a series of cylindrical objects attached to the station around its perimeter.

‘Mrs Stern, these are the shuttles which are used for interplanetary flights. You will take one to fly to the Moon. You can even have a better look at it now. There it is, on the sixth ring. Blinking with red lights.’

‘I thought they were much bigger. And which way do we manage to be huddled there for so long!’ Meryl said, smiling.

‘Oh, Mrs Meryl, it just seems like these shuttles are small. This illusion is because of the size of the *Federation*. It’s huge. So it seems that interplanetary ships are small. The total height or length of the station, depending how you look at it, already now exceeds 300 meters, and the diameter is about 500. As you might have noted, its active construction continues.’

‘I see, John. It turns out that not everything is so bad,’ Meryl gave a wink.

‘I am absolutely sure that both you and Mr Podger will enjoy the trip. Moreover, it will not take much time—about 16 hours. Tomorrow you will wake up in lunar orbit already.’

‘Oh, come on, John!’ Meryl replied indignantly. ‘How is it possible to oversleep such a flight! I plan to be watching around all the time—the Earth disappearing, the Moon approaching. And, as far as I remember, during the flight we could take part in a number of experiments. Will such a program be available to us?’

‘I fully agree with you, Mrs Stern, it’s a fantastic sight and a unique experience. Please fasten up. We start docking now.’

The station already occupied the entire space in the cabin

window.

‘It looks like a big modern business center that was just launched into orbit,’ Lewis noted, examining carefully the approaching station.

‘Yes, it’s impressive, dear.’

Each of the ring-modules or levels of the station were connected to each other by a set of crosswalks. All modules were numbered from 1 to 11 apart from the last two, the construction of which had not yet been completed. Each module had three-levels: two floors dedicated for residential premises, scientific laboratories and administrative offices. The third was a technical one, where life support systems, communications and a system of engines maintaining a constant rotation speed of the station were located.

Artificial gravity at the station at $2/3$ of the Earth’s gravity practically levelled the difference for its guests. The station staff and tourists felt quite comfortable. Despite the special living conditions on the *Federation*, as close as possible to those on the Earth, the duration of a business shift for the staff usually did not exceed six months. Doctors insisted on such regulations.

On the approach to the station, it became quite obvious that life would not stop there for a minute. The rings of the station were covered with lights, somewhere one could even see its staff in the large windows. In the opposite direction, the frame of the new modules under construction was visible, with some welding job on structures under way. Workers moved around in

special chairs, designed for short distance travel. The chairs were equipped with everything required for welding. Elements and modules of the structure were also attached to them, significantly saving assembly time—there was no need to constantly fly to the hangar and back, dragging the necessary material for work.

‘My God, Lewis, who would have thought—we’ve got into the future!’ Meryl whispered. ‘Do you remember what the orbital station was like in our childhood—a Lego construction kit in comparison with this base! At the same time, it had cost thousands of times more to get to that constructor. It’s amazing how quickly things have changed...’

‘Meryl, it’s 150 years ago. Not so fast, if you’d think about it.’ *Ezo-4* docked to the station silently, synchronizing the angle and rotation speed.

‘Dear passengers, welcome to the *Federation* International Space Station. The weather set fair today, the temperature outside is $-270\text{ }^{\circ}\text{C}$,’ a laugh of approval went all over the cabin, ‘it’s still more comfortable at the station $+22\text{ }^{\circ}\text{C}$. Please note: the station uses the coordinated universal time corresponding to Greenwich Mean Time. So if you’ve come in from the UK, make yourself at home.’ Someone whistled a greeting.

‘Dear passengers, please remember to collect your belongings when leaving the cabin. On behalf of *New Horizons*, thank you for choosing our company. Thank you for using our services and we wish you a very good evening! We will be glad to see you again!’

‘Mrs Stern, Mr Podger, let me escort you to your cabin.’

‘Of course, John. Thank you,’ Lewis replied.

‘Your shuttle to the Moon will start in a little over an hour. You will have some time to look around at your level. I’ll tell you everything on the way.’

Tourists arriving at the station did not need to register anywhere or undergo control, inspection, or any other checking procedures. Everything happened automatically, without direct human interaction. Scanning systems embedded in the cladding of the premises performed their functions imperceptibly, ensuring safety and order. The main element of the modern human communication system and the PAX system was the digital passport of a citizen of the Federation or Tracker, as it was also called. It was implanted into the human body prior to birth at the stage of fetal development. The tracker was designed to do the three main tasks—(1) communication with the PAX digital systems, starting with the basic representation of the personality, (2) continuous monitoring of medical indicators, (3) preventive security. Nothing else was required from anyone, but to go about their own business without being distracted by routine issues, which were delegated to smart systems.

John, Meryl and Lewis were walking along a lengthy corridor, about 2 meters wide. John was leading the way one step ahead. Recently *knighted* space tourists looked in all the directions turning their heads around, as if afraid to miss something important and interesting.

New York is not the last city on the planet, perhaps, and probably not the most boring. And they travelled quite a bit around the world, having visited all continents not for once. But neither Lewis nor Meryl expected so vivid impressions and such an acute interest they experienced on the *Federation* space station.

Preparing for the trip, Lewis managed to lose some weight. However, just a bit. But he was in good shape and felt great. Always solid on the ground, Lewis was holding Meryl's hand and smiling, almost bouncing at every step: 'Yes, the gravity is a third weaker here... What an old fool I am!' Lewis suddenly realized the reasons for his elated mood. 'But it's still nice to feel a hundred years younger...'

'When we were approaching the station, Meryl, I thought that we would run like guinea pigs in the big wheel of the station... But I must admit that my fears were unjustified. I don't have such a feeling at all, although the round geometry, the visible rounding of the floor and ceiling, are noticeable to me.'

Meryl looked apprehensively at her husband:

'Are you all right, Lewis? You're strangely joyful and it's like your thoughts are foggy. I'm worried about you.'

'I'm just feeling great, darling!'

'You know, Lewis,' John started saying having carefully examined the two under his wardship, 'this feeling of elation often happens here. This is especially true of newly arrived tourists from the Earth. Gravity, the purest filtered air saturated

with oxygen—this effect is akin to a slight intoxication. But the body will soon adapt. Don't worry, Mrs Stern,' John smiled.

Two young men dressed in semi-athletic cotton suits came out of the room located on the right side along the way. The same as Lewis and Meryl were wearing, only white. Meryl saw the name and the number 3 embroidered on the sweatshirt of one of the guys.

'John, tell me, what are the numbers embroidered on the front of the uniform and on our suits?'

'They show the access level, Mrs Stern. There are many full-time employees at the station, far from everyone knowing each other. There have been cases when the guests of the station, violating the security regime, entered the work premises together with the staff. For example, in a laboratory where they were denied access. Of course, nothing special happened. Tourists were just curious, but still the administration decided that it would not be extra to single out, separate locals and visitors, so to speak, and visually as well.'

'In such a case, I feel like a tipsy scientist!'

'Why is that, Lewis?' Meryl was surprised.

'Firstly, the situation itself—we are in space on the orbit of the Earth! The assignment of the station—to carry out research. I've read that 6 rings out of 11, that is, 6 modules of the *Federation* are under scientific council management. And finally, look at this stunning interior here. The feeling is that you've got into an supermodern office of a high-tech company— everything is

flooded with light, white floor, glossy walls and ceiling, large, huge windows in which you can see the opposite part of the station, its inner ring.'

'Mr Podger, your perception by and large does not deceive you. The station is the largest scientific laboratory ever created by man. Moreover, it is important to note that most of the station's budget is funded by a consortium of private companies.

Here's your cabin,' John gestured for Meryl and Lewis to enter the room. 'Please come in.'

'Oh my God, what a view!' All Meryl's attention was attracted by a large porthole. 'Lewis, look at that! This is beautiful!'

The blue surface of the planet's ocean was floating by the porthole, some places shrouded in fluffy clouds.

'You can turn the porthole dark completely if this continuous movement in it bothers you. A monitor is built into the porthole. So if you prefer to display some static image, this option is also available,' explained John. 'The station is spinning all the time, creating artificial gravity. I hope this will not cause you any discomfort.'

'In any case, we'll have to put up with all these inconveniences and your local asceticism,' Lewis winked at John.

'If you need anything, please call me.'

'Well, let's call the children, shall we?!' As soon as John left, Meryl suggested. 'We promised to contact them as soon as we arrive at the station.'

'Let's do it!' Lewis took out a tablet from a small backpack

and put it on a coffee table next to the porthole.

‘Don, call the children,’ Lewis asked his digital assistant.

Two photos appeared on the tablet screen: one of the daughter Ellie, her husband Cune and granddaughter Vannie, and next to them their son Edward and his husband Francesco.

‘Don, put the image on the big screen.’

The photos appeared on a monitor on the cabin wall.

‘Hi! Dear ones! Have you arrived yet?’

‘Hi, Mom, Dad!’

The video link with Ellie and Edward was established. The room was filled with loud voices.

‘Don, make it a little quieter,’ Lewis commanded.

‘Hi, Ellie! Hello, Edward, Francesco! My dear ones!’ Meryl started wiping away tears off her eyes.

‘Hello, children! We are glad to see you!’ Lewis was waving his hand vigorously.

‘Mom, are you crying?!’

‘No, of course, not, Ellie!’

‘If you cry, I won’t talk to you!’

‘Good, good, dear!’

‘Are you on the Moon already?!’ asked Edward, bursting into laughter and pushing Francesco in the side.

‘We haven’t managed yet, Eddie! On the *Federation* now. We’re leaving in about forty minutes,’ Lewis replied.

‘Ellie, where’s Vannie, where’s Cune?’

‘Mom, it’s already 2 o’clock in the morning here. I didn’t wake

them up. Cune is leaving for a business trip tomorrow...’

‘I see, dear. Sorry we’re so late. But there was no way before.’

‘I am very glad to see you! You look great! What kind of suits do you have... somehow not typical of you,’ everyone smiled.

‘This is sort of a uniform for all astronauts. We have now, by the way, children, officially become astronauts! I don’t remember our numbers, though. Some kind of ten-thousandth...

But still—your parents are astronauts!’

‘Hooray, hooray, hooray!!!’

‘You are great, having decided on such a thing!’

‘It’s all down to your father, Ellie!’

‘How are you doing, Edward? But, you don’t have to answer though. I see that everything is fine!’

‘Yes, Dad! Everything is fine! Tomorrow we put a new collection into production. We are adding the finishing touches now. Tomorrow we will celebrate with the whole team!’

‘Will you send me a pair of new shoes?’

‘Only in return for your astronaut suit!’ Francesco shouted and laughed.

‘Agreed—suit for each one of you, new shoes for me!’

‘Let me show you something, kids. Now, just a second,’ Meryl picked up the tablet, activated the rear camera and came up to the porthole. ‘Well! How do you like that?!’

‘How beautiful, Mom!’

‘It’s divine, Meryl! But I think you’re just kidding us!’ Francesco started laughing again. ‘A video on YouTube on, and

here you are, I'm an astronaut! In a moment you are going to show us a layka-dog in the porthole!' The laughter rolled all over the cabin.

'Okay, Francesco, that's enough! Your jokes will wake up the kid!' Ellie tried to sound as strict as possible, barely holding her smile back.

'Would you call us straight from the Moon, people!'

'All right, Eddie. Of course! Though, they say comms is a bit biting there. But we are at the expense of the host party,' Lewis made a joke, switching the video back to the front camera.

'Absolutely not! We've spent all the money on a new collection! So everything is at your expense, please!'

'Have a good trip, Mom, Dad! And we are waiting for news from the Moon!' Ellie said goodbye.

'Thank you, guys! Say hi to Vannie! We will bring you some moonstones as souvenirs.'

'Somehow I miss them a lot, Lewis,' finishing the conversation said Meryl.

'I miss them too, dear.'

'We'll all have to get together when we are back. At our place.'

'All right, Meryl. We will definitely do that.'

'Maybe better in the house in Washington? There's more room there.'

'Maybe it's better. But it's closer for Eddie to fly from Rio to New York.'

'That's also true,' Meryl smiled.

‘Well, it’s time to get ready. The departure time is close.’

John escorted Meryl and Lewis to the boarding gate of the Luna-7 shuttle:

‘Have a good trip, Mrs Stern, Mr Podger. It was a great pleasure to work for you.’

‘Thank you, John.’ Lewis shook his hand.

The Moon

The commercial lunar shuttle service was completely different from the spaceship that took Meryl and Lewis to the international station. A squat, solid barrel. Its aerodynamic characteristics did not matter, since it never came into contact with the atmosphere. The shape was determined by the purpose—to deliver space tourists safely and quickly, with the maximum possible comfort. An additional bonus was the transportation of goods from the station to the Moon and back. The company also made good money on that. The flight to the Moon took 16 hours, and it was necessary to keep the passengers busy doing something throughout the flight. It was not technically possibility to create artificial gravity on the shuttle as it was too small for that, 20 m long and about 30 m wide.

About $\frac{2}{3}$ of the internal volume of the ship was allocated for the crew and the needs of passengers. The rest of the space was occupied by boosters and nuclear engines, fuel compartments, various engineering systems necessary for the flight. The passenger cabin accommodated two separate first

class cabins, each designed for two privileged passengers, and the rest of the space, which could accommodate another 10 people. Meryl and Lewis bought out both cabins. So initially two small rooms were combined into one, comfortable enough for a long flight for especially demanding travellers. Lately, everyone got out of the habit taking long trips. The flight from New York to Beijing took about 3 hours. So the inhabitants of the Earth were somewhat spoiled by the possibilities of modern transport infrastructure on the planet, and were expecting a similar level of service in space. The space travel industry was forced to take into account new realities in the fight for customers. Billions were invested in the development of new rocket engines, which led to the required results. At the time of the *Apollo* program in the second half of the 20th century, it took three days for the spacecraft to reach the satellite. Today it takes a little more than half a day.

But even during this seemingly not too long a flight, space tourists needed to be entertained: all kinds of films and TV series suiting every taste, a *Lunar café* appropriate for the purpose and a telescope giving a chance to explore a number of planets of the solar system and other more distant objects to be studied during the flight. In the absence of the Earth's atmosphere, which did not interfere with observations in outer space, the third option was quite in demand among passengers. It was also not forbidden to socialize with each other, read or just sleep.

‘Dear passengers, welcome aboard the *Luna-7* shuttle. Our

flight on the route of *Federation* International Space Station-*Armstrong* Lunar Spaceport will take no more than 16 hours. Stewards Olga and Philip will be happy to help you throughout the flight.'

The shuttle undocked from the station almost soundlessly and began to maneuver slowly, reaching the required flight path. Acceleration went very smoothly and unnoticed by passengers. It wasn't as tough as the launch of a spaceship on the Earth at all. This time Lewis was sitting next to the porthole. Meryl settled next to him. The station was rapidly moving away and in a minute it was no longer visible against the background of a bright blue planet.

Lewis pressed the button to call the steward:

'Good evening, Mrs Stern, Mr Podger. How can I help you,' Olga got closer to them and hovered next to them, holding on to the handrail.

'Could you bring us two rugs please. We're a little cold.'

'Of course, Mr Podger. You can also turn on seat heating. Here are the appropriate controls,' Olga pointed to the buttons on the panel built into the armrest.'

'Thanks.'

'I'm so tired, dear,' Lewis said to his wife... 'Here you go... she's already asleep.'

'So we're going to sleep after all.' Carefully covering his wife with a blanket, Lewis pressed the button—the back of the chair lowered levelling with the seat, from under which an additional

leg pillow was pushed out. His chair became the bed on which he settled down to sleep.

‘Mrs Stern, Mr Podger... Mrs Stern, Mr Podger,’ Olga lightly touched Meryl’s shoulder.

Meryl shuddered, waking up from the persistent attempts of the stewardess to wake them up:

‘What? What is it?’

‘It’s all right, Mrs Stern. Everything is fine. We are landing in less than 30 minutes.’

‘Have we slept for 16 hours?!’

‘Not really, Mrs Stern. It’s been 11 hours since we undocked from the station. The captain used a new improved operating mode for the engine, which significantly reduced the flight time.’

‘That’s good news, dear. Thanks. Now we’re... getting ready.’

Meryl looked at her husband, hovering over the armchair bed, next to which he was held by seat belts during the flight.

‘Lewis, dear, it’s time to wake up. Lewis. Lewis!’ Lewis was snoring softly. ‘Lewis!’ Meryl patted him on the shoulder. ‘Lewis, wake up. You will miss all the most interesting things sleeping like that.’

Overboard, fantastic and at the same time alien to human consciousness, lunar landscapes were replacing one another: small craters and the consequences of collisions with the distant messengers of the turbulent formation of the stellar system, which had been imprinted for millions of years; black spots gaping on the gray body of the satellite, in which nothing could be

seen; huge boulders and stones; hilly fields of regolith and endless plains of emptiness. There, on the lifeless surface of the Moon, the gaze of a traveller who had just arrived from the planet with its life represented in such a bright and exuberant manifestation, was especially sensitive and receptive. A unique, priceless gift of the universe had become so familiar on the Earth that many began to take it for granted, stopped appreciating it. On the Moon, in the contrast of life and absolutely sterile emptiness, an understanding of the infinite value of the gift to humanity available on the native planet was manifested.

The shuttle was rapidly approaching its destination, the surface of the satellite was getting bigger.

There were three bases on the Moon. The first and the main, the largest, International Lunar Base *Hipparchus* was located on the southern border of the Mare Nubium. About 9,000 people were constantly engaged working in its four sectors—scientific, military, industrial and tourist. 99% of the infrastructure of the *Hipparchus* base was located below the surface, which allowed solving a number of problems, including severe temperature fluctuations caused by solar exposure, radiation, meteor showers. Prior to choosing the site for construction of the base, a long-term seismological research had been carried out, starting with the Apollo program in the 20th century. It proved that the particular satellite zone was optimal from the point of view of moonquakes.

Despite the positive data on low tectonic activity in the Mare Nubium region, the indicators of moonshakes did not exceed 2.5

on the Richter scale, the construction of the base was carried out taking into account the most stringent standards. As a result, according to the design documentation, *Hipparchus* should have withstood loads 3 times higher than the possible destructive impact of the satellite. Despite the fact that such an additional reliability of the project accounted for 7% of its total cost of \$300 trillion, no one had any doubts about the expediency of such an approach. The reliability of the complex operations and safety of employees, requirement to minimize all possible risks was the basic rule guiding the coordination council of the lunar base construction at all stages, starting with the design. Despite the engineering achievements in the field of rocket engines and fuel systems, which had significantly reduced the time required to deliver cargo from the Earth, in the event of an emergency, the personnel of the lunar base would have to be self-reliant. The number of such potential crisis situations had to be brought down.

The ship slowed down. Gradually turning around, the shuttle started descending slowly through the opened gates of the landing shaft located below the surface of the Moon. A few minutes after the engines were turned off, a passenger telescopic airstairs locked on to the hull.

‘What fun it is to feel the weight of your own body again,’ Lewis finally recovered after the flight and was in a great mood. ‘After all I’ve got some weight again!’

After zero gravity in outer space, gravity on the Moon seemed

quite sufficient for moving comfortably.

‘Dear ladies and gentlemen! The Luna-7 spacecraft landed at the *Hipparchus* International Lunar Base. Thank you for choosing the *New Horizons* company to travel to the Moon. Please do not leave your belongings in the cabin of the ship. We wish you exciting adventures on the Moon! All the best to you! We are waiting to see you again on board the *New Horizons* lunar shuttles!’

Modernists on the Moon

Having settled in their room on the third level of the tourist sector, Meryl and Lewis headed to the hotel restaurant for breakfast. The restaurant was one of those rare places on the Moon where one could watch the lunar landscape out of huge portholes. Armored portholes with built-in light filters automatically let just enough sunlight into the room to make guests feel safe and comfortable. The star-studded sky and the fantastic view of the Moon boulders scattered across the Sea of Clouds provided the restaurant with a five-star rating, even though the choice of dishes there was noticeably limited in comparison to the similar venues at the station.

Having made the order, Meryl and Lewis started looking around at the restaurant interior and visitors.

‘Good morning. Sorry to bother you. Are you Meryl Stern?’ A young woman approached the table where the couple was sitting.

‘Good morning. And who are you actually?’ Meryl replied

warily.

‘I am Alessandra Bucinni from the Milan Gallery of Contemporary Art.’

Not hiding her surprise, Meryl was studying the stranger.

‘You work at the Guggenheim Museum, right?’

‘Yes, that’s right,’ Meryl confirmed.

‘We are doing a small exhibition of paintings by European modernists here in the cultural center. It would be a pleasure to invite you.’ Alexandra looked at Lewis, too.

‘My husband, Lewis Podger,’ Meryl introduced her husband, who was listening to the ladies’ conversation.

‘It is good to hear that art has already reached the Moon.’

‘Yes, it has. And we are glad with the opportunity to be part of this new process right here on the Moon. It’s an amazing experience. I’m sorry I’ve distracted you. The exhibition is on the first level, next to the main hall. Please come. Enjoy your meal.’

‘Thank you, Alexandra. It’s good that you came over.’

‘What’s all this about, Meryl?’

‘I don’t know exactly, dear. They’ve sent me a request for our Kandinsky collection. They’re asking to support their young artists. Tora had sent me their request back in New York. I haven’t made a decision yet. An amazing coincidence. To meet someone here on the Moon,’ Meryl tapped her index finger on the table, ‘the one with whom you communicate at home. It does look strange somehow... Or maybe she wants me to write some kind of review on the works of their young artists. Oh, I don’t

know... So much for her!’

‘We are either becoming something more than just a civilization of the Earth, or our big village has simply expanded a little.’

‘Lewis, we’ve got out of the Earth for a long time, as you might remember. We have already a primary settlement on Mars.’

‘Yes, you’re right, Meryl—the village is growing up slowly.’

They smiled at each other.

A Seminar Room

‘Mrs Stern, Mr Podger, follow me, please. I’m from the *Hipparchus Base* security service.’

‘Who are you and strictly speaking, what is it?!’ Lewis took Meryl by the hand and turned to the young man who unexpectedly interrupted them while getting acquainted with the exhibits of the *Museum of the Moon History*.

‘Please come with me. You’ll be explained everything. Please, let’s not make a row here. I’m asking you to come with me.’

‘Listen, what’s the problem?! Confirm your credentials first. Which way could we know that you are from the security service, and not a terrorist!’ Meryl’s pulse started racing.

‘You’re welcome. All the information is available on your communicator, Mrs Stern.’

Meryl took out her communicator and carefully scanned the information about the employee of the *Hipparchus* station security department.

‘It is impossible to forge one’s digital passport,’ her anxiety intensified, ‘what could have happened so that a 170-year old couple had to be urgently pulled out of the *Museum of the Moon History* in broad daylight!’

The security officer, Lewis and Meryl were sitting at a large rectangular glass table. The table top, the base on which it rested, the chairs in the room—everything was transparent. The walls, floor and ceiling lined with video panels created a single visual space, bringing over the participants to any environment, historical event or any place in space.

The panels located on the floor were displaying the lunar surface. On the wall opposite Lewis and Meryl, where the young station officer was sitting, there was a blue ball with playfully twisted cloud spirals hanging in perspective.

‘Apparently, this room is used for seminars and presentations. It’s beautiful, but somehow it doesn’t feel right here... you feel like you’re going to start suffocating from the lack of air—it’s all too realistic,’ Meryl looked around.

An inscription appeared on the wall: ‘Welcome to the Museum of the Moon History! Let’s start our journey!’

‘On the other hand, we would hardly feel more confident if we were in an interrogation room with an iron table and chairs bolted to the floor,’ Meryl continued reflecting. Lewis, sitting next to her, was tapping his fingers on the table.

‘Good afternoon, Mrs Stern, Mr Podger,’ a man, about 120-130 years old in an officer’s uniform briskly entered the

room. ‘My name is Ilya Tochkov. I am the senior security officer of the *Hipparchus* Lunar Station.’

Ilya combed his gray hair with his hand, poured himself a glass of water, pressed something on the control panel built into the table—a photo of Alessandra Bucinni, whom Meryl and Lewis had met a few hours ago at a restaurant for breakfast, appeared on the wall.

‘The thing is, Mrs Stern and Mr Podger, your Trackers have been hacked. And it was through them that, there were attempts taken to penetrate the PAX quantum system here at the Lunar Base.’

Meryl and Lewis didn’t move.

‘What do you mean hacked. It’s impossible,’ Lewis seemed to come to his senses.

‘Unfortunately, it turns out to be possible, Mr Podger. Possible.’

‘Perhaps. Let’s say. I don’t understand anything! What do us and the PAX have in common, why anything needs to be hacked, and this girl there!’ Meryl pointed at the screen.

‘The story is quite interesting. This girl, Mrs Stern, is exceptionally resourceful, and got down to business creatively. Attempts to hack both the Tracker and the PAX system have not stopped for decades. Unfortunately, your case, I think, will not be the last. The first contact with you, Meryl, the so called Alessandra Bucinni—her real name is Petra Orzhanka—tried to establish more than once during 8 months in the

States. This is how we understand the situation at the moment. I would note that the investigation is not over yet. In the end, she managed to get partial access to your digital passport just recently. The folder with documents that your employee at the museum handed you allegedly with a request from a gallery in Milan, actually contained a built-in Tracker hacking system. The problem is, Mrs Stern, that it takes a considerable amount of time for this miniature system to provide full access to your chip. Any electronic system requires power, and the system of an active cyber-hacking chip even more so. The electronic components power supply embedded in the folder, I have to admit, is an extremely talented solution. The electromagnetic waves that surround us everywhere contain sufficient energy for the functioning of this low-voltage electronic pick-lock, so to speak. The energy of the waves remained to be collected and accumulated. But, as I noted, such a scheme works slowly. Luckily for you. A more powerful system would require a more capacious power supply.'

'What's that got to do with me? Why did I get into the focus of attention of some crazy hackers?'

'Mrs Stern, you are far from the only one on the list of this group who was attacked.' Orzhanka does not work on her own. We believe that they are connected with divergents and with a hacker group in Russia. We have recorded several dozens of such digital attacks in the U.S. alone. But they were especially lucky with you.

The PAX system at the lunar base is protected by several different protocols. Of course, for obvious reasons, I will not go into details. I'll just note this. Firstly, there was a little more chance for them to penetrate, to hack the PAX through the base on the Moon than on the Earth. And, secondly, the main word here stands for *was*. Since now this, let's say, *back door* has been already closed. The second time,' continued Ilya, 'Petra got into contact with you already here on the Moon, when you were having your breakfast. That's when your Tracker was finally hacked, Mrs Stern.'

'Are you saying that a couple of minutes of our communication with her were enough?'

'That's right. All she had to do was finish the work she had started in your office at the museum.'

'Once again, Officer, I still don't quite understand why they need me. If they flew to the Moon with their hacking system, why not do all the work themselves on the spot? They won't interfere with themselves?!'

'Meryl, the reasons are obvious. Your social status in society is slightly different from the achievements of Orzhanka after several years of her residence in the U.S. It is your name that provides you not only access to certain places, first of all, the level of your credibility is different. Secondly, why should they expose themselves when they can entrust the dirty work, so to speak, to be done by someone else.'

'This is a complete nonsense.' Meryl started rubbing her

temples with her fingertips.

‘Let’s say for a while,’ Meryl continued, ‘what does Lewis have to do with it in such a case?’

‘Mr Podger, can you add something from your side?’

‘What do you mean, Officer?’

‘Can you guess, do you have any assumptions, where and under which circumstances an unauthorized contact with your Tracker could have occurred? Where could your Tracker have been hacked?’

‘No. I hardly understand what’s going on here and what we’re talking about!’

‘I see, Mr Podger. I should note that we don’t have the whole picture yet either. There are a number of assumptions about where, who and how they could have contacted you...’

‘I have no idea, Officer, where this hacking or attack, what did you call it, could have occurred.’

‘The basic reason determining the potential attractiveness of your chips, Meryl and Lewis, is as follows. You, as wealthy people, were among the first to implant these modules many years ago, when the relevant technology became available. As you understand, over the past hundred years, many changes have taken place in microelectronics. Unfortunately, your chip models are more vulnerable at the hardware level, rather than bugs in the software.

‘What we’d suggest to do promptly,’ after a short pause the senior officer Tochkov continued, ‘is to flash your chips here and

now, which will ensure the required level of their reliability and smooth operation.’

‘I would prefer such an upgrade made by specialists on the Earth in full compliance with the regulations and safety requirements. I think it’s the right thing to do,’ Meryl looked at the gray-haired man sitting in front of her.

‘Of course, hypothetically, you can do that, Meryl. But in this case, you and your husband will have to be isolated, because, once again, I stress it, your Tracker has been hacked and is now configured to attack the infrastructure of the PAX system on the Moon. We just have no right to let you out and let you walk around the station. All and any of your actions and movements entail risks for its regular operation. Your very presence determines the risk of the system being hacked. It is exactly for this task that your chips have been now programmed. Yours, Meryl, and that of Lewis. All this is not some joke. The situation is extremely serious. The most straightforward and prompt solution, completely painless and safe, is to do flashing of the Tracker in a medical laboratory by an authorized specialist.’

‘My God! This is madness!’ Meryl’s thoughts were confused.

‘What do you think, Lewis?’ she turned to her husband.

‘I don’t even know what to say. The officer says the situation is serious. I agree—it’s extraordinary. I can’t remember a bearer’s Tracker being hacked without someone realizing it. The Tracker’s operating system is provided with a quantum...’

‘Lewis, Meryl, I do understand your concern. Believe me. If

my Tracker had been hacked, I wouldn't be here anymore—they would have definitely sent me back to the Earth in a sealed virtual digital container. And would have isolated me here on the Moon. Let's make a decision and get over this problem!

'Lewis, secured by quantum...—secured by what? You didn't finish.' Meryl looked at her husband carefully.

'Meryl, what's all this got to do with it!' Ilya interjected, interrupting again.

'Secured by quantum encryption. Which means that it is theoretically impossible to hack the system.' Lewis was looking at Meryl.

For a second, everyone in the room went silent.

'I have to leave you for a couple of minutes now,' Ilya said, checking the time. 'When I get back, we'll have to go to the laboratory, dear all.'

Casting a quick glance at his young colleague, who had brought Lewis and Mary into the room for exemplary presentations, Ilya Tochkov left as quickly as he had come in.

'Let me get you some water,' the junior officer said to the elderly couple. 'These screens here have made my throat a little dry.'

'Thank you,' Lewis said after the officer leaving the room.

'I mean, Meryl! I can't believe we've got into such a trouble here!'

'Almost got, dear! Don't you understand?! They want to con us! I think they wanted to. Like old and naïve idiots, they just

wanted to con! Oh, my God!’ Meryl slammed her fist on the table.

‘Well, yes! Wanted and did it! Hacked the damn chips, Meryl!’

‘They haven’t hacked anything, Lewis! They want to do this to us! Call the security service now!’

I love you

Meryl sat down helplessly in a chair in the hotel room and burst into tears.

‘Meryl, are you so upset about these crooks? They aren’t the first nor the last in our lives. They are not worth it... God, what’s wrong with you, darling?! Meryl, what’s happened?! Lewis knelt down in front of Meryl and hugged her. ‘What is it, Meryl?! Tell me... Meryl...’ Lewis almost whispered.

Meryl was shaking all over... She was crying and couldn’t utter a word...

‘I... I... I’m sorry, please, Lewis!’ she continued crying.

Meryl knelt down next to her husband and hugged him tightly...

‘It’s okay, sweetheart... please...’ Lewis soothed Meryl, gently stroking her on her head.

‘I thought for a moment that...’ Meryl started saying through tears nearly choking, ‘I thought that you had arranged it... You tried...’ endless despair was braking through Meryl’s sobs.

‘Forgive me... Forgive me! Sorry!’

Meryl and Lewis were kneeling in front of each other and

crying.

‘I love you, Meryl.’

Before: Elections

Legislative, executive and judicial power are the three pillars and the defining foundation of a state system. This has been the case for thousands of years.

Society is inherently a human structure, and as such it is always gravitating towards the leader. A leader who knows what and how to do, who is ready to take responsibility for complex, difficult decisions, and can fulfil his obligations. People are ready to trust a leader who is able not only to lead in times of crisis and instability, appealing to the duty of the future generations. A leader who is ready to start a sequence of changes to determine fundamental revision and upgrade of the vertical power structure. A structure designed for a new stage of society's development, even if such changes will bring into question the need of fulfilling his own public duties. Impartial, experienced and wise, ready to serve—a leader capable of leading his country to the threshold of a new world.

By the end of the 21st century, humanity came to understanding the need for global reforms of the state system: otherwise, without introducing changes it would have been impossible to further develop society. At the beginning of the last century, the first signs of degradation of the world order model that had dominated the planet for more than a century became obvious. These signals were not noticed by the majority

of political elites, and those who understood the potential of arising changes, deliberately ignored them and, moreover, made active efforts to conceal the first symptoms of the serious illness coming. In fact, the clan or block model, which implied states united into groups guarding only each other's interests, ceased to be effective. The European Union, the United States of America, the Union of South American States, the Eurasian Union, the key members of which were Russia, China and India, and many other, created poles of power—political, military and economic. The world was multipolar, on the one hand, providing a competitive space that positively determined vectors of development in any sphere of human activity, but, on the other, endless struggle was taking up too many resources.

Scientific potential, like any other creative asset, is strong and grows stronger when an environment is created for the community of scientists, implying no restrictions and barriers for exchange of ideas, with the possibility of a specialist's participation in a particular project dependent only on the knowledge and intelligence, but not on speculative considerations of the current key of communication between politicians at the state-to-state level.

When politicians, and government on the whole, are misled and lose themselves in the realities of the world, going to extremes in their cognitive distortion, when civil servants begin to perceive the illusions they have created themselves about their purpose as defining development vector of the society,

forgetting about their real function of service, there appears an irresistible potential for change. Body ulcers have boundary outcome scenarios—they will burst from the inside due to the excessive pressure created by the environment, they can be removed in a timely manner by qualified personnel or, spreading more and more actively, the destructive process will go irreversibly.

Each decade rapidly flying away, there was less and less doubt left about the need for changes. Understanding the very right plan for big changes was made even more complicated by the ecological and demographic crises. Every one of them increasingly accelerated the centrifugal force of each other, ready to spin away off its own axis and smash everything around, putting the final point in the long-running dispute of a human, always supposed to be in the centre of everything, against the audience unwittingly gathered on the main and the only scene. The population of the planet was getting younger and grew older, peaked up, creating new extremes, and was falling into the demographic abyss in such a fragmented way—from the insane bursts in Africa and the young Antarctica, which had been increasingly gaining strength, to the finally surrendered Europe and North America. The abyss was so fragmented that the agenda of any political elites' discussion was reduced primarily to working out effective proposals aiming at finding a fundamental resolution of this situation of deep crisis.

The demographic gap and the environmental imbalance,

which had become catastrophic, were not the only triggers of a major changes plan.

In 2075, there lived over 13 billion people on the Earth, and their vital activity required more and more resources every day. These challenges had ceased to be hypothetical—somewhere, once upon a time, our future generations... No, it was literally happening there and at the time. Overpopulation, air pollution, a sharp decline in animal species, rising temperatures, rising ocean levels, a shortage of clean fresh water, food supply disruptions in some regions of the world...—they were existential challenges.

Large financial and technological resources were still concentrated in the Old and New Worlds, as Europe and North America were once called. But the scientific potential was already making its way along the new path of development, like a vine reaching for the light, despite obstacles and obstructions. China, India and Russia—the union of the three states led the development of breakthrough technologies, aiming at radical redefining of the world order. Quantum computing systems, ultra-high-speed communication lines and research in the field of medicine were in the focus of the best scientific forces of the leading countries of the Eurasian Union. Within 25 years, the budget for development in priority areas had reached 1 trillion yuan. Colossal resources were allocated for good reason, and by a predetermined time, in 2099, teams of scientists presented a working prototype of artificial intelligence based on a quantum computer, which surpassed humans in its computing potential in

a number of applications. The point of no return, successfully passed by humanity, defined the entire further course of its history.

This AI was given the name PAX, emphasizing the global and all-encompassing significance of the new technology—the technology of solving problems and overcoming the challenges that the contemporary world faced and struggled with at the time. Thermonuclear installations of the ITER type; ultra high-speed communication system; achievements in the field of medicine, longevity in the first place; development of superconducting magnets of a new generation which formed the basis for launching a high-speed mainline transport system on the planet; air transportation at hypersonic speeds; international lunar base; the first settlers on Mars...—the list of innovations that had changed the world beyond recognition could have been continued if not indefinitely, then at least for a lengthy time.

An AI—an intelligence, though still artificial. The computer was controlled, programmed, as before, by the human. The human set a task on which a computer mind of almost limitless possibilities had to work. The active cooperation of people and machines was not limited to scientific and innovative areas only. It was obvious to society that in order to maintain a new standard of living, and to take the next step over, a new foundation was also required—a political and organizational structure, an updated principle of state system. The new high-tech infrastructure did not correlate in any way with the **operating system* of life and

the structure of society, which everyone continued to follow. That old **operating system*, was screaming with the need for an unambiguous upgrade. The PAX had developed relevant offers.

The United Federation of Nations (UFN) was a large common house built on the foundations and basic principles of the United Nations. Globally significant decisions for the whole planet had to be made at the level of the UFN. The executive power state machine in each country was reduced to a minimum, and somewhere, in countries with a population of up to 1 million—there were more than 100 of them—it was completely abolished. Legislative activity was redirected to PAX. The function of finalizing and approving the legislative framework was the UFN prerogative. AI was involved in the development of overall standards, as well as laws meeting the interests of particular peoples and their unique needs, which reflected ways of life and certain territorial life conditions dating centuries back. It was only due to PAX that various models of a new legislation future impact on a particular region were developed, by way of analysing a huge array of data and requirements, predicting their effect and bringing draft laws to perfection.

This was another unique advantage of the cluster quantum computing system—the impartial study and analysis of huge databases, terms and requirements for the formation of an ultimately verified legislative framework in the interests of citizens of the Federation.

The judicial system had also been fundamentally updated.

Collaborative, joint cooperation of an individual and PAX within relevant functionality allowed to significantly reduce the administrative staff of the judiciary, reduced the probability of judicial errors to minimum. Of crucial importance was successful contribution of the new system to fulfilling the mission of the penitentiary system—the number of crimes committed, both economic and criminal, was significantly reduced. To avoid punishment had become difficult, if at all possible.

Citizens of the United Federation of Nations supported the new political structure—the approval rating of the government activities reached beyond 80%.

Peace had set on the planet! After tens of thousands of years of wars and fight for survival, civilization, having overcome the crisis of regeneration, was finally ready for new worthy achievements, relying on the intelligence of PAX which was always ready to protect from mistakes.

The system of delegates election to various levels of government representative bodies had been also deeply revised. Region—city—district—republic (in cases where the size of the territory implied appropriate need)—country—United Federation of Nations. At each of the five levels, those citizens of the Federation who were directly related to it, to the particular level, became the electors. Thus, citizens living in a certain area, for example, in a large megapolis, chose their representative to the district administration, which was accountable to the electors of such a district. Further, representatives of the district

administration chose the head of the city administration, which was in its turn subordinate to them. And so on, up to the Secretary General of the UFN, whose elections were held every two years during the General Assembly. No one else used the word **power* anymore to describe the functions and work of the administration responsible for the implementation of programs to improve the welfare and well-being of the citizens of the Federation. Everyone did their job responsibly.

If a situation developed in a way that a citizen or a group of citizens considered an administrator as improperly performing his work, and the assessment of his activities to be unsatisfactory, in such a case anyone could initiate appropriate proceedings with PAX. The system, in turn, conducted a study of all the facts related to the circumstances stated by the citizen and made a decision on the expediency of passing a vote of no confidence to the employee. The final decision on the issue of dismissal of the employee was made by citizens, unless, of course, the administrator violated any legislative norms. If an offence was noted, such an administrator was automatically removed from his position and could never apply for any elective office or work for state authorities.

Such **conflict* situations were extremely rare, since PAX was pre-evaluating in detail all possible candidates for compliance with the entire set of requirements for work in civil service. And to mislead PAX was, to say the least, not an easy task at all.

The election procedure itself was no more complicated than

ordering a sandwich in the Food app on the communicator. The digital passport or otherwise Tracker was responsible for the unique authorization and identification of a citizen. Some people tried to fraud its operation, but, it should be noted, such efforts were not crowned with anything good for them.

The whole administrative system was working in a simple and straightforward way, as two times two makes four.

Before: Interview

‘You know,’ Thomas objected irritated, sipping coffee from a small golden cup, slightly setting aside his chubby little finger, ‘they are not miracles and magic that our department does write about.’

‘Do you really think so, my dear Thomas?’ The thick lenses of Jasha’s round-rimmed glasses were adding an even more expressive look to her large eyes.

‘That’s right, Jasha! For more than 100 years, we have been telling our readers about innovations that are changing the world, and not about charlatans who are trying to cash in on it. An encyclopedia of techno-scammers is already bursting with an endless series of this kind of fraud.’

‘Dear Thomas, Bild has been writing for 200 years about what is of interest for our readers, what excites them, what will interest them tomorrow or what should concern them now and today. We write about life! We write about everything! This is the first.’

Jasha got up from her chair at the head of a long table, where various representatives of the publishing house were sitting: special correspondents, editors, copywriters, assistants and a Bild lawyer watching with interest the next drama deploying at the morning briefing.

‘Secondly, Thomas, it’s not for me to tell you that breakthrough technologies, real innovations, engineering art are

akin to magic. All that we do not understand, what we cannot explain, causes us to be wary of suspicion. But that's exactly what our job is, Thomas, my dear friend and colleague, to understand such stories. To understand them well enough, so that we are ready to convey the essence of new ideas to our main beneficiary—the reader. The reader and only the reader is the chief judge, appraiser and investor into our future. If we choose losing strategies, our investors will bet on Verge, TechWorld, Facebook and similar platforms. You and I would have to talk and write about sausages and beer. I would have thought this is not your goal and not the goal for your department in charge of the technological information unit either.'

Jasha went up to the window in the conference room. The twenty-million city spread out before her like an endless canvas. Glass buildings and office spires were pushing through fluffy clouds, here and there comfortably covering the business centre of Munich, not at all against reaching the Olympus light of European life.

'Dee, 50% window shading.' Jasha instructed the digital assistant, squinting her eyes in the sun peeking out from behind a nearby skyscraper.

'Could we, as a society, hopefully civilized to a certain extent, have achieved such a level of technological development?' Jasha continued, 'the level that lifted the human to the sky, and literally speaking, too.' Waving her hand over the opening perspective of the city, she turned to her colleagues. 'Whether we, as

civilization, could have been able to extend human life up to 200 years, create an artificial PAX intelligence, that in some ways surpasses ours, create a fantastic transport infrastructure that connects the continents together? Could we,' Jasha held up her index finger, 'have achieved all this if we didn't dreamt!'

'Thomas, get ready with your team, get on a shuttle to Moscow and meet this new Russian miracle!' Pausing for a while, Jasha summed up.

'Jasha, your arguments are convincing as always!' Thomas replied, glancing at his young assistant across the table. 'We need to prepare, think through all the details, agree the time with Alexandra Tokareva. There is a lot of preparatory work ahead. Do you yet need Peter and me here at the meeting, Jasha?'

'We have covered all the points with you, my dear. Go and work.'

'You see, Peter, how useful it is to help your bosses to navigate around,' Thomas turned to the assistant with a smile of self-satisfaction, while heading between the rows of desks of the editorial staff in the direction of his department, located at the opposite end on the same floor. 'The plan worked smoothly like on wheels! It was only necessary to push her a little in the right direction and, voilà, everything is ready! And they are saying that women control and manipulate men due to their insight! Ha-ha!'

'Thith trick won't work with you now, Thomath.' Peter objected lisping, 'you know thith thecret well.'

'But not in your case, my dear.' Thomas looked warmly at

Peter, 'OK, you, first of all, contact Alexandra, agree with her the interview time from 12:00 to 14:00. Next, book tickets for the whole team for the morning shuttle to Moscow. We'll leave Munich at 7:00. At 10:30 we'll be there, in her laboratory. It will take an hour and a half to prepare for the interview. More than enough. We'll start at 12. D'you understand everything, Peter? Will you repeat.'

'Interview with Alexandra from 12 to 14, tickets to Moscow, collect equipment and the team. Should I look for material about her in our archive, Thomath?'

'My main task tomorrow is to expose this so-called *genius*. Although Jasha swallowed the bait about charlatans from science, I am almost sure that this Tokareva is a vivid example of a crook, of which we have already seen a lot. The only difference may be that her artifice is not so easy to be brought to light, given the specifics of its capabilities. So, Peter, my dear, of course, look for and collect all the possible information on this lady in our archives and any other sources. Anything worth my attention, please forward today no later than dinner time. Go, go, go! We've got work to do!'

Thomas entered his small office that looked more like an aquarium. 2 by 3 metres, all made of glass, located in a corner of the floor. He was proud of his office and would constantly boast it to all his colleagues and friends.

Corner offices were reserved only for the most important and valuable publishing house employees who had been working

with Bild for decades. Of course, there were exceptions to this: petty romantic and love affairs, a couple of bosses' relatives, proteges of significant sponsors and other eternal signs of social injustice. But that was not Thomas's case. He had achieved everything by his own merit, graduated from the Faculty of Journalism of Moscow State University in Russia—one of the most prestigious educational institutions in Europe. And he did graduate with a distinctive result. During his presentation of the graduation paper, the commission noted especially the exceptional approach of the German student to studies—*a bright and creative, simple and thoughtful, socially significant subject of research...* Thomas was offered to start a career in the largest news agency in Russia, but he decided to return home to Germany, where he originally planned to build a career of a techno-journalist, given his interest and passion for everything new, scientific and innovative. He could not but miss a single engineering, technological novelty, gadgets and all kinds of devices, especially when it came to the digital and virtual world—a classic technomaniac. When the operation of the quantum artificial intelligence PAX was launched in the middle of the twenty first century, Thomas had just finished his studies and was starting his first steps in the profession. PAX revolutionized not only the entire planet, it turned Thomas' mind upside down. His wildest dreams about what a person could achieve, relying on the capabilities of AI, started to come true. Literally every day news about a breakthrough in a particular field of science

would come from different parts of the world. And it was all due to the partnership of the human and the AI. From titanic shifts in the field of medicine, allowing an individual to confidently step over the centennial milestone of full and active life in society, up to introducing incremental changes in the design of an aircraft wing, which provided for an additional 20% reduction in its weight, thus increasing the efficiency of flights. All these new developments were replacing one another literally like a kaleidoscope. There seemed to be no end to amazing innovations. A new partnership between the human and PAX brought in a new era of prosperity and development. And the pinnacle of achievements of the partnership after two decades had been the almost complete eradication of poverty, hunger and the elimination of the eternal need to fight for energy resources on the planet. It seemed, there was nothing else to dream about. Finally, 75 years after graduation from the university in Russia, Thomas, having gained some life and professional experience, started to understand what was happening a little deeper, and looking from a different angle too. Partying with friends he used to repeat—*Everything has its price. The price for new achievements is a new degree of no freedom.* In the modern infrastructure of civilization, it was impossible to take a step without a digital passport or a *Tracker*, as it was also called. The passport was the key to everything. Literally—*the key to everything.* There wasn't a single area of human activity where people could have been interacting with each other without this

invisible pass to all the benefits of the services industry.

Going to a cafe, booking a taxi or taking a ride on free public transport, buying a gift for a friend in a store, going on vacation, or coming back home—one could perform all these actions and an infinite number of others just being oneself, imperceptibly interacting with the surrounding digital infrastructure. The digital passport certified individual's identity, no matter wherever and what the person was doing, meaning that one's whole life was carefully classified and recorded by PAX. The system knew someone better than an individual knew himself. But Thomas didn't mind at all. He was an advocate of the new order, because he understood that no ideal system existed. The modern world order had provided people with an opportunity to move on to the next step in the development of civilization. Thomas considered the price proportionate and fair—everyone became the winner. People received a new level of comfort; the state, predictability, stability and control.

‘So, Dee, let's see what we have on this Tokareva, too.’

Dee, as a digital assistant to the editorial office, had access to various Bild archives and databases, available in the corporation divisions on all the six continents. Considering the status of Bild as a socially significant organization acting in the interests of society and two hundred and fifty million subscribers, the editorial office was connected, albeit with some restrictions, to the PAX global information base. But the data available was

more than enough to learn a lot about a person. Of course, taking into account a certain level of access to personal and confidential information.

‘Here you are, Thomas. We have the following information on Alexandra Tokareva. I’ve prepared a selection of the main points for you that might seem significant for the upcoming interview in Moscow.’

Thomas started looking through the information displayed on the computer screen in his office.

Alexandra Tokareva.

Gender: Female.

Age: 53 years old.

Place of residence: Moscow, Novosibirsk, Russia; Tel Aviv, Israel.

Education: Faculty of Physics and Technology, Novosibirsk State University, Russia;

Faculty of Computer Science, Massachusetts Institute of Technology, USA.

Scientific achievements and patents: 34 registered patents in total. The most significant is the methodology developed for automatic structuring and analysis of big data of an individual’s life activity with the help of the PAX cluster system computing power.

A recognized expert in the field of big data analysis.

Alexandra Tokareva is engaged by public and private bodies to develop programs for key infrastructure projects.

Alexandra Tokareva has a number of state commendations for her great contribution into the development of the transport infrastructure of Russia, for her active participation in educational programs for the primary school development in Israel.

Main place of residence: Moscow. Lives with her partner, Rivsha Alka.

No children. Has two dogs of the Jack Russell Terrier breed. Dog names: Bonnie and Russell.

Political views: does not belong to any party or public organization.

Hobbies: powerlifting, mountaineering.

Throughout her career, she has given only three interviews for popular science online publishers. The most notable statements by Alexandra Tokareva are presented below.

The role of training programs focused at the formation and development of creativity of the individual. An interview with the Israeli newspaper Haaretz in 2093 in connection with the launch of a new preschool education program in Israel, in the development of which Alexandra had been actively involved for two years.

I cannot imagine a situation when our contemporaries, parents of the small individual, could have allowed for not enlisting a child for a preschool training program. Surely, this possibility is

defined by the Constitution. Educational programs are available on demand to everyone today. But how is it possible that in our civilization a responsible guardian can intentionally deprive a child of the opportunity to fully prepare for the upcoming life in a society, where PAX with its artificial intelligence exists. Our main advantage as a species over quantum networks is unpredictability. But in order to set productive boundaries to this unrestrained power of humankind, we must begin to form an appropriate knowledge foundation as early as possible, which will serve to build a structured and multilevel intellectual and unique information base for each individual, taking into account the peculiarities of one's neurostructure. I am ready to say once again: the sooner a child joins a specialized training and development program, the better. And when I say earlier, I literally mean on the second or third month of the baby's life. At this age, the speed of building neural connections in the child's brain is amazing. Our task is to make this process as productive as possible in terms of future potential. So that the child's mind is not clogged with information trash, and intellectual efforts would aim at forming a basic experience with the focus on the upcoming activity. Correlate—if you'd like—with the mission of the person.'

The power potential of quantum computer networks. Interview for the Russian news agency VGTRK 2105 in the framework of the scientific symposium Quanttech-2105 in Omsk, Russia.

'A little more than half a century ago, the supernova of

computing technology exploded. The launch of a distributed system of quantum computers connected by an ultra high-speed network of the eighth generation is the moment of birth of the digital God of science. Does God have limitations? What do you think?'

The impact of the further development of a new system of underground trunk energy high-speed tunnels on the Russian economy. Interview for the Vedomosti newspaper on the basis of the annual International Economic Forum in Saint Petersburg in 2107.

'The Northern Sea Route, which infrastructure Russia actively started developing in the first half of the twenty-first century, had a significant and positive impact on the economic growth of our country and the Asian region. During the first 10 years of development and operation of the new logistics world artery, Russia's GDP increased by 4%, just due to its potential only. And, note, we are talking about sea transportation with obvious inherent speed limits. What do you reckon is the potential of the transport infrastructure, which is two hundred times, I emphasize once again—two hundred times!—exceeding one of the key elements of the economy equation of any state—how long will it take to move cargo from point A to point B? The task for our team was to prepare a mathematical model based on which investors would be able to make reasonable assumptions about the payback period of the main tunnels connecting certain points on the map, i.e. industrial sectors and urban agglomerations. I am very glad that

our contribution to this significant project helped to make, I hope, the right decisions; helped to avoid the deployment of unprofitable branches of the high-speed transport system.'

Having finished reading Dee's notes, Thomas started preparing a list of questions and a script for the upcoming interview. The more he learned about the ambitious young scientist, the more appealing she seemed to him. 'A pretty girl, a bit rough features, short haircut, stocky and dressed like a tomboy. She reminds more of a comic hero about crypto farmers who are fighting an invasion of energy poachers somewhere in Iowa,' Thomas reflected. 'Who knows, maybe I underestimate her capabilities. But her new development looks too much like magic and sorcery, but not a scientific approach,' he glanced out the window. 'What's the time? It's already quite dark.'

'See you, Dee!'

'Thomas, all the necessary information about the trip to Moscow is on your communicator. Have a good trip, Thomas.'

'Thanks, Dee,' Thomas replied, leaving the office.

Work in the Bild newsroom was in full swing at any time of the day, as one would expect in a world's leading entertainment and news agency. Thomas loved this spirit and the energy of non-stop production. Endless political disagreements and compromises, which somehow parties happened to come to, new budding developments for business and economic forecasts, show business stars passions and celebrities news and, of course, science and technology—information from all over the world

streamed to the editorial office in the incessant data flow. Thomas Bach has been in charge of the Science and Technology Department for seven years.

It was in his editorial office that he felt himself most confident. The work occupied his whole life, and, in fact, it was his life. But on that day he was feeling a little tired and devastated.

There was a capsule waiting for Thomas outside the Bild house, ready to finally take him home, where Peter was waiting. He was looking forward to a family dinner and a chat about nothing. Those thoughts calmed him down, he felt more comfortable.

‘Enough for today. Home, home, home!’ Thomas muttered wearily as he sat down in the capsule.

The noise of city streets muffled, the sounds of a mountain river and the roll call of forest birds, +22 °C—all settings automatically turned on for the convenience and comfort of the passenger. ‘It will take no more than 10 minutes to get home’—a route to Thomas’ house in the suburbs of Munich was displayed on the monitor. The capsule silently raced along multilevel city highways, moving away from the business centre of the city, leaving behind its energetic bustle and competitive ultimate fight for the opportunity to be the best.

Important Details

The main station of Munich was located under the business

centre of the city. In a twenty-million megalopolis it wasn't easy to allocate land on the surface for such large-scale public centres. But, it wasn't at all necessary in that particular case. International high-speed highways ran underground—a transport tunnels network covered the whole of Europe, similar to a multibranch metro in some major city before. One could have worked in Brussels, and lived in Berlin—to get to work, when of course the requirement for a personal presence was implied, took no more time than a subway ride to a station in the opposite part of the city.

The station seemed to be absolutely stretched in size. Endless series of shops, restaurants and small cafes, service centres for tourists, capsule hotels where one could recuperate before a business meeting—without detailed communicator navigation instructions one could have easily got lost in huge multilevel halls connected by numerous passages, travelators and elevators.

Munich Train Station like a big modern city, hidden underground, never slept, was always on the move. Despite all the scope and complexity, the architects tried to make it cozy at the same time.

There was a long row of restaurants along the perimeter of one of the central halls after the Parisian fashion. Tables and burgundy sunshades, decorative parasols carried the ever-hurrying travellers to the French capital in lunch time. Complementing the theme of Paris, each of the five main halls of the station demonstrated its central individual idea, a concept

emphasizing the unity of European capitals.

The tourist bustle of London's Regent Street with its cavalcade of magnificent shops; the masterpieces of the Moscow Tretyakov Gallery and Saint Petersburg's Hermitage—paintings on huge screens, graciously offered themselves to be viewed; the proud grandeur of Rome, which confidently took its place in the first row of architectural masterpieces of the ancient world; the riot of Berlin's modern art, balanced by the monumental structure of the Brandenburg Gate—Europe's largest logistics centre in Munich provided vivid impressions for more than two hundred million passengers, forever fitting into family albums with memories of trips around the world. Over the past seven years, the station had ranked first among the most popular transport hubs in the world. Thomas' favourite hall was the main and the largest, the Berlin Hall. The high ceiling vaults decorated in Gothic style, combined with the contemporary modern design of shops and cafés, with graffiti, somewhere littered with cardboard and wooden boxes, symbolizing the protest mood of young people, did not contrast at all with each other. On the contrary, the deliberate mix of design elements emphasized how important it was for the creators to show the connection between generations and time, respect for the history of the city and its culture. The light, almost white arch of the main hall of the station was supported by thin columns made of metal, like thin stems overlapping each other in a reed bush. Each group of such supports contained three to ten rods. This approach made it possible to further increase the

perception of the total volumetric dimensions of the hall without concealing its space.

A team of three Bild employees led by Thomas Bach gathered in a cafe waiting for the shuttle to depart for Moscow. Peter Weichner, as Thomas' personal assistant, held responsibility for the entire organizational and administrative part, allowing the main actors to focus at the task itself— to prepare another bright and interesting interview to be of interest for millions of subscribers and technology geeks around the world. One hundred and twelve million views was Thomas' record. A report on the launch of an ITER-type installation in Germany and networking it to the Pan-European power grid was released more than 50 years ago. Since then, they had worked with Anna together. Anna Neichuk had received more than one professional award as a high-class camera operator.

'Do you remember, friends', Thomas turned to his colleagues, sipping from a small cup of espresso, affectedly cocking his chubby little finger, 'what is our goal for today?'

'Of course, Thomath!' Peter readily responded lisping. 'To shoot a lethal material that will allow uth to break through the theiling of the Bild chartth.'

'That's right, my dear!' Thomas did not hide his relationship with a colleague in a narrow circle, but would not emphasize it either. 'The task is extremely simple—I want one billion views!'

Anna gave a little whistle:

‘Yeah, there’s only one little thing left. The plot is wonderful. As in my opinion, with good potential. I don’t think, of course, that we will gain one billion. This is rather the prerogative of stories about the illegitimate offspring of the Pope or the murder of the chancellor. But there is a chance to break the previous record. However, let’s be realistic, guys—the chance is not that big. And granted that you, Thomas, will be your best, as usual.’

‘How funny this chubby finger of his sticks out,’ Anna smiled, restraining herself.

‘D’you remember it ever being different, my friends! Our team of professionals has always demonstrated a distinctive approach and remarkable results! We weren’t always lucky with themes. That’s true,’ Thomas sighed heavily. ‘But this time, I feel, everything will work out in the best way possible!’

‘Our shuttle leaves in 15 minutes,’ Peter addressed his colleagues. ‘It’s time to move out.’

The bulky luggage of the journalists’ team was delivered to the station in advance, checked by automated security services and loaded into the appropriate compartment of the shuttle. They had only to walk light to the right terminal, find the gate and wait for departure.

‘Travel! I love travelling!’ Anna was quite interested while looking at the surprisingly bright, colourful design of shop windows on the way to the boarding gate, at tourists and businessmen, busy station employees, and information desks.

‘Everything is so lively and gorgeous here! There is no need to go anywhere—just look around and enjoy the local sights!’

‘I thee, you are feeling great this morning! Peter replied. ‘To tell the truth, I’d rather have a couple of hours of thleep more. No lethth.’ And added ‘these are mostly examplenth of workth by modernithth, I would have thought, from Berlin gallerieth. I do recognithe thome.’

Thomas waddled along, slightly ahead of Peter and Anna. When they reached the entrance to the shuttle, Peter started bustling around:

‘We need to take a photo and shoot a couple of frameth.’

‘Okay, let’s do it,’ Thomas responded. ‘One photo of us all together, the second is just me. Anna, and take a picture of me entering the shuttle.’

Anna took out a mini photodron from her backpack. Having checked the settings on the communicator, Anna replied:

‘Everything is ready. Come up closer. The light is optimal for photos here.’

The team looked really great against the background of the bright blue metal body of the shuttle with a silver arrow piercing it from the very head to the end. The shuttle was a solid structure no longer than 70 meters. A huge turbine in its head part provided reduction of the air density at the front and in the immediate vicinity of the head part. This was one of the critical components

of the system, making it possible to reach a speed limit of 1000 km/h.

Superconducting magnets of a new generation, operating at normal room temperature, made compensation for contact friction during the movement of the shuttle unnecessary too—the body of the vehicle did not come into contact with anything other than rarefied air. It levitated.

It was frequently, hundreds of times that Thomas was travelling by shuttles in different parts of the world.

Each of these trips did not cause him just a feeling of childish unrestrained delight. Born at the time when the speed of the most advanced ground vehicles did not exceed half of what the main underground system offered at present, he understood an extent of the powerful economic potential that the new infrastructure would allow to realise. He was fascinated by the possibilities of cooperation and interaction between artificial and human intelligence, at the same time frightening him to a piercing cold sweat in the middle of the night, when he would woke up from another nightmare fantasy in the fashion of universal armageddon. Thomas could navigate in the current trends of technological development well enough, and he was frightened by the prospects and potential of the possibilities of the PAX quantum system.

A widespread automation of work processes, and not only mechanical or implying low-intellectual operations, was increasingly pushing people to the sidelines of economic

relations. Of course, overall performance in most applications would be higher than human performance. True, people adapted, developed professionally, focused on more complex tasks involving a creative approach with each generation to come, but the pressure of AI was only increasing. Thomas could hardly feel at all himself being overwhelmed by these fears. As an expert in the technological field, it would have seemed right for him to be at the forefront of the advocates of the new order of things. And he was such an icon and a herald for everyone. At the same time his inner voice was getting its own way.

In line with the Bild corporate regulations, where one of the key rules was—*Confidentiality. Confidentiality. Confidentiality*—the media holding considered it reasonable for its employees to travel on business in individual multi-seat compartments when going by underground shuttles or airplanes, although such precautions were much more expensive compared with the cost of even the first class. *Information leaks already result in multimillion losses to the company every year. I will not save on several hundred thousand euros to lose even more*—editor-in-chief Jasha Kapra

used to say defending an *unreasonable* expense item in front Bild auditors.

Next to the entrance to the Thomas's team compartment, on the information screen current speed and point on the general route were displayed in rapid succession.

They just managed to leave the train station, not even a couple

of minutes had passed—400, 450, 500 km/h... ‘No wonder,’ Thomas thought, ‘considering that in two and a half hours we should already be in Moscow.’

‘Peter, well, what did you find on our star? Would you share your insider information,’ Thomas asked the assistant, taking his computer out of the bag.

Peter and Anna were sitting opposite Thomas at the table, where it was convenient to do some paperwork or view news feeds from information agencies on a tablet. The design of the shuttle did not imply the necessity of passenger windows—the train was moving in underground tunnels, and any structural additions affecting the integrity and rigidity of its body did not offer benefits for reaching high speed. There was a large panel mounted on the compartment wall facing the passengers for their entertainment and leisure. It was possible to choose anything to one’s personal preference: from news channels to car simulators, where it was possible to measure virtual driving skills with fellow travellers. Peter switched on his tablet, displayed information from it to the panel for greater convenience of the colleagues, and began telling the story.

‘Alexandra Tokareva. 53 years old. Liveth with a friend in Moscow. She graduated with honors from two of the best universities in the world—the Novothibirthk Univerthity in Russia and MIT in the U.S. In the scientific community, she hath a reputation as a high-clathth specialitth. She patented a number of inventionth in the field of big data analythith’—

Alexandra's photos from various scientific events, short videos with her speeches at conferences were displayed on the screen. 'Well, Thomas, you've already read and then all this.'

'Of course, I've read it. Dee gathered this information for me without much difficulty. D'you have anything I don't know, Peter?'

'I think, yea.'

An image of two elderly people appeared on the screen—a man and a woman. Judging by the surroundings, the photo was old and taken a long time ago.

'These are Tokareva's parents. I do not know why, what the reason was, but they died before reaching even 100 years old,' Peter looked at Thomas appraisingly, hoping to see, if not surprise on his face, then at least approval of such an important find.

'That's interesting.'

'Ha! Of course! But it's not all yet!' Peter continued. 'Apparently, her parents were divergents. The family moved to Novothibirthk just before Alexandra entered the univerthity. And where from would you think!?' Peter theatrically froze waiting for an answer.

'Well, where from then?' Anna replied.

'From Irkutthk! Irkutthk is far beyond the Uralth. There'th altho a famouth lake there. The world's largetht lake with fresh water... uh, what'th the name...'

‘Baikal. I know where Irkutsk is. Don’t forget, dear comrades, I’ve studied in Russia for seven years. So you’re saying, Peter,’ Thomas continued, ‘that Alexandra’s parents lived in Cheremkhovo near Irkutsk in the centre of divergents?’

‘That’th right!’

‘Great job, Peter! Well done, my dear!’

‘And it’th not the end yet! Wait to applaud! She had a younger brother who went miththing even before the family moved to Novothibirthk. So, twenty years after his dithappearance, the body of a teenager under Irkutthk was identified according to the results of the DNA analythith—it wath Igor Tokarev, the miththing brother of our Alexandra! According to the invethigation protocolth that I managed to find, he was killed. But the reathonth for thith murder and who, in fact, killed him are thtill unknown.’

‘That’s really the story you’ve dug up! I didn’t expect it, I have to admit. Very good!’ Thomas was showering compliments. ‘There is, however, one nuance. A significant detail to be noted. This story sounds more like a fascinating plot of a detective story, but not an introduction to a new interview technology allegedly developed by a young scientist in Moscow. As I said yesterday, I will quote myself: *our task is to bring Tokareva to light*. It’s good that we still have time to finalize the script and questions.’

‘In general, I’ll tell you, colleagues,’ Thomas continued, ‘times are different now, of course. When I was at the university, at Moscow State University, we had a different understanding of

what an interview was. All the stages of taking an interview and making a report could have been compared to a great adventure: from careful preparation, direct communication with the *client*, to memoirs, if, of course, there was anything interesting to tell about in a book, Thomas smiled. ‘We didn’t have any digital assistants, capable of generating a plump dossier on the topic in a minute, covering all the possible aspects of the history under investigation. We actively used, but with reasonable caution, the Internet, as an endless source of information garbage fields, realising the need, even for self-protection, to very carefully sort, check and verify all the data extracted from it. No one wanted to get into a situation when, referring to a certain resource on the global web, which, in fact, was run by another socialite from the local zoo, or an Instagram blogger with 30 classmates-subscribers, you just reposted a tabloid fib.’

Anna interrupted Thomas:

‘What does the zoo have to do with it and who is Instagram, Thomas? What kind of web?’

‘The global Web—that’s what the Internet was also called when I was a student. And it’s not so important, my dears. The point is that journalism used to be quite different—the job was risky, complicated, performed an important social function, challenged those in power... Have you ever heard such an expression—*press is the fourth power*?’

‘No, Thomath, I haven’t heard that,’ Peter replied.

‘No surprise. Since now we have all the branches of

governmental power eventually flocking to a single point of concentration of all and everything.’

‘And what is that point, Thomas?’

‘The PAX, of course. The fucking PAX. But what matters today Peter, is that you’ve found this important information that Dee didn’t give out. I won’t ask you how and where you got it from, my dear.’

A steward brought three cups of coffee ordered by Peter, who was beaming with his own journalistic luck.

‘I must admit that luck really helped him,’ Thomas reflected. ‘This family drama with the murdered boy should be carefully considered and brought up in the conversation with Alexandra.’

Thomas looked at the information screen, displaying the current status of the trip:

‘Speed: 989 km/h.

Travel time to Moscow: 1 hour 30 minutes.’

All as planned

Rocking in an armchair with a large cup of strong coffee in his hands, Sergey Semyonovich

was following the established routine of many years of service—looking through reports, orders, sorting mail on the computer. In the office there was an aroma of freshly ground invigorating drink with light notes of tobacco.

A man of the *old school*, as he often would describe himself, Sergey Semyonovich never found the strength to quit smoking, although he switched to completely *harmless* cigarettes, as his wife assured him. ‘Seryozha, well, if you go on poisoning yourself, please think about your grandchildren—they are not to blame for anything!’ He couldn’t have ignored that argument. Finally giving up, at the age of 167, he had to change his habit, which he treasured so much. In the old classical manner (or, as he said, *culture*) of smoking, Sergey Semyonovich found a connection with the past era, for which, as a man no longer young, he sometimes felt nostalgic.

Informational message.

August 12, 2153.

*For attention: Zhdanets Sergey Semyonovich,
Head of Department for Emergency Situations*

Category: Red.

On August 7, 2153, corporate employees of the Bild publishing house (please see the list of names in the appendix) contacted Alexandra Iosifovna Tokareva about organizing a meeting in Moscow at the Moscow State University laboratory.

Background information on the case.

Alexandra Iosifovna Tokareva.

Gender: Female.

Age: 53 years old.

Place of residence: Moscow.

Place of work: Moscow State University, Laboratory of Macro Data Processing and Structuring, Senior Researcher.

Tokareva is a recognised expert in the field of big data analysis.

Tokareva has been involved in a number of state programs for the development of regional infrastructure projects.

For additional personal data, please see the appendix.

Case Summary.

In May 2153, the MSU laboratory, where Tokareva is employed, completed the development of a prototype of the Interview software package (the working title of the project), designed to generate visual and speech images according to the specified parameters of the individual with the help of the PAX quantum computing power, images that at the time of the formation of the corresponding projection have not presented an active registered civil society object and/or that of military divisions.

The PAX system cluster, supervised by the security services of Russia, classifies the current situation as Red and recommends preventing meetings between Bild journalists and Alexandra Iosifovna Tokareva for an interview on the issue of clarifying the fundamental principles of the prototype of the Interview software

package.

*Executed by: Vladimir Igorevich Murashkin,
2nd rank officer, Event Monitoring Department.*

Sergey Semyonovich opened his department operational comms app: ‘Murashkin, Murashkin... where are you, Murashkin...’

‘Vlad, come to my office regarding your report on Tokareva.’

‘Good afternoon, Sergey Semyonovich. I’ll be right there,’

Vladimir answered over the speakerphone.

‘So what is this story, Vlad, please clarify,’ inviting him to take a seat opposite his desk, Sergey Semyonovich addressed his subordinate. ‘You’ve intrigued me. What can this Tokareva’s software complex do?’

‘Sergey Semyonovich, the PAX and we ourselves try to do the job in the best possible way, tracking all significant events. Those causing certain concerns are the first to be subject to a thorough analysis.’

‘Vlad, well, you... you did everything right—your report is to the point and straightforward. Now I need to figure out what kind of technology, what kind of risks, what the options are. These are the issues that are important now.’

‘Understood, Sergey Semyonovich. So, this is the case. This lengthy and confusing name of Tokareva’s new development

—*Prototype of the Interview software package for generating a visual and speech image according to the specified parameters of the individual who is not an active registered object at the time of the formation of the corresponding projection...*—implies the possibility of creating a digital copy of the person who no longer exists, a survey and a dialogue with this prototype.

It was like for a moment everything went frozen in the office.

‘What does that mean? Please explain, Vladimir,’ the boss said quietly, pulling up the chair closer to the table.

‘To say in fact and briefly, Sergey Semyonovich...’

‘Yes, Vlad, in fact and briefly.’

‘We are dealing here with a possibility of *feeding* digitized data about a deceased person to the system: photos, videos, information from social networks, medical data, data from state databases, including audio and video surveillance systems, and the like. All this digital data is *digested* by PAX, based on the algorithm developed by Tokareva and her team, and as the output we get the opportunity to fully communicate online with a digital projection, a digitized copy of the person from the past—someone who no longer exists.’

‘Yeah, let’s assume it’s clear,’ Sergey Semyonovich leaned back in his chair. ‘And does this voodoo technology work?’

‘According to the reviews and comments of Tokareva’s colleagues, which we collected online the other day based on the signal received from PAX, the answer is positive—yes, it works. Tokareva herself notes that at the current stage we can only talk

about a prototype or only an early version of the *emulation of the individual* program, as she herself calls it. Her colleagues note, Sergey Semyonovich, that, despite the early stage of the work on this software model, the reliability of the resulting personality projection is high and reaches 80-85% accuracy.'

'Really?! And how did they calculate it? How was it measured, would be interesting to know?'

'They did surveys, starting with 100% reliable facts of the person's biography, and up to the events to which the person was related, but which were not recorded anywhere. For example, some family events, work situations, and the like, that only family members or colleagues would know about. Thus, we can conclude that this prototype is already working and is a highly important tool and asset,' Vladimir summed up.

'Fine. That's clear, Vlad. When is their meeting scheduled for —Bild and Tokareva?'

'On August 19, Sergey Semyonovich. Here, in Moscow, in a week.'

'Good. So, let's do as follows. (1) I confirm the PAX recommendations regarding the inexpediency of a meeting between the German journalists and Tokareva. (2) It is necessary to develop a set of measures to keep safe the developed prototype and maximize the support of the laboratory, Tokareva and her team. (3) My first priority is to report this situation to Ilya Igorevich and coordinate our further actions. Please keep in mind, Vladimir,' Sergey Semyonovich significantly pointed in

Vladimir's direction with his index finger,'—the *red* priority issue. All right then, let's do it 100% accurately.'

'There we are then! My God! Soon they will digitize us alive, so that's the way it goes...', having agreed the possibility of an urgent meeting to report the director of the PAX security service, Sergey Semyonovich started getting ready to go.

Interview about the *Interview*

'So, Alexandra, apparently, you and I have succeeded after all!' Thomas greeted the other party.

'Apparently, yes, Thomas! Good afternoon!' Smiling, Alexandra held out her hand to greet him.

A special Bild room for virtual interviews did not require any particular preparation from the participants. One only needed glasses and a tablet with a camera in front of the conversation partner. The computer did the rest of the work. The participants of the conversation saw and felt themselves located in a modern meeting room in the Bild building in Munich on the 47th floor of the editorial office. At the same time, they themselves could have been anywhere, even on the beach, and if one wanted to chat while relaxing with friends in the forest, you were welcome. Those taking part in the conversation, and the viewer would all see a perfectly realistic picture of the event with the personal presence of the participants in the Bild office.

'I am glad that you could find an opportunity to meet with me and talk about your amazing, stunning and mind-blowing

program, the *Interview*—so much it is now praised by the media around the world! But first of all, of course, I want to congratulate you, Alexandra, on this success. What you and your team have done is like a revolution in our world. A new stage in the development of society. Important historical events and the stories of people whom we honour or, on the contrary, would like to forget as soon as possible—everything will appear to us in a new way. All the hidden details and secrets will be carefully studied, myths and tall tales will be finally debunked.’

Alexandra started laughing:

‘If only it were the case, Thomas. But thanks. The team has done a lot of work. And I have something to thank each of our specialists for. This is indisputable.’

‘Alexandra, before we move on to the amazing details of your development, let me clarify why our first meeting, scheduled for mid-August, two months ago, failed? What was the reason for such an unexpected withdrawal of your invitation to our editorial office to meet with you in Moscow at the specialized research laboratory of Moscow State University?’

‘Of course, Thomas, I’m ready to explain everything to you. The reason is simple and purely technical. Our laboratory at Moscow State University,’ Alexandra emphasized *State*, ‘falls under certain regulations of the state security system, which is constantly monitored by PAX. Given the field of our research, such a security barrier, if you will, seems reasonable and appropriate.’

Our laboratory participates in the strategy development for important and critical infrastructure projects in the country, in Russia, which, of course, attracts attention of various organizations, both commercial and some international services. We understand the wish of the Russian security agencies to take care of us and our work. As they explained us, some restrictions that were indeed applied to the meeting with Bild journalists scheduled for August—the circumstances in which we had found ourselves, were determined by PAX.’

‘Don’t you think this explanation to be convenient—referring to a certain system? Like, the system is in charge of everything.’

‘It sounds like that, Thomas,’ Alexandra continued, slightly adjusting her glasses, ‘but this situation is as real as our conversation with you at the moment. You are in Munich, I am in Tel Aviv, but for the viewers of your channel, we both are in your office. This is how they see and perceive this particular event. PAX assigned a high priority risk in relation to the integrity and information security of a rather complex intellectual product, with large funds invested in its development—the relevant services could not help but react to this. That’s the whole story. I am ready to apologize to you once again that our meeting did not take place then in August. But I hope that your trip to Moscow was not in vain, and you managed to spend a few productive and pleasant hours in the city.’

Alexandra made it clear that she was not ready to go into the details of the story. The case was closed. Thomas decided

that it would be inappropriate to go into further investigation of the reasons for the cancellation of the agreed interview. That day in Moscow they managed to talk with the world legend of biohacking, Dr. Albina Zemtsova, who was at the origin of the development of digital passports. An old friend of Tokareva, having learned that the meeting with her would not take place, she contacted Thomas' team herself and offered to talk about some new developments in her laboratory. The material turned out to be excellent, and based on it, the editorial board decided to launch a series about the development of a Tracker.

‘Alexandra, so how does it work anyway?’

‘I think that both you, Thomas, and the audience have already heard about the basic principle of the *Interview* software package. Nevertheless, to briefly describe its essence in a nutshell, I will note the following. Based on big data about human life, about all its aspects—from physical, so to speak, parameters and character traits, social activity, a wide range of available media materials...—based on the set of information about the personality under study, a digital copy of which we want to recreate, an appropriate model of the individual is built. There are, of course, countless components. This is one of the main problems—there should be so much information about the object under study that the range of possible candidates in the initial position would be extremely limited.

The second key component, of course, is the algorithm itself, which forms the basis of the program logic. This is the key value

and the development by our laboratory, which is so jealously protected by our esteemed colleagues from the security service,' smiled Alexandra.

'And, of course, it should be noted that the operation of our software complex would be impossible without the power and infinite potential of the artificial intelligence of PAX. The complexity of the calculating task for only one model, an indicator of the level of computation power required for the software package operation, could be demonstrated by the following remarkable figure, which I will share with you. The load on the entire global system of PAX when dealing with our task increases by 0.1%, and peak values reach 0.15%. This is a colossal figure, as you would understand.'

Thomas nodded in affirmative:

'Alexandra, this is amazing! Which way such a complex mathematical model could have ever been developed at all, for me as a man from the street, I'm afraid, would never be given to understand. But here's another thing also of interest and calling for some clarification: what made you launch such an extraordinary project? What is at the bottom of the idea to create a software product which could be used to interview, simulate the answers of someone who has already died, who is no longer in this world?'

Alexandra reflected for a couple of seconds, took a sip of water, adjusted her glasses and continued:

'The idea is based on a complex of various factors and

conditions. The key one is located somewhat outside the *Interview*, as it may seem at the first glance. The current stage of work on the project, its part, which we have implemented as of today, is one of the first stages of a large task that our laboratory is expecting to solve.’

‘And what is this bigger project, Alexandra?’

‘We live in the age of an infinitely large array of data and devices, which surround us everywhere, that are always connected, we ourselves, you and I, are always online also. Data about our activity, our condition, our medical indicators, everyday habits and daily routine—everything that is peculiar to us is constantly collected, systematised and analysed by PAX. Society on the whole has come to an agreement, to some kind of social contract, to an understanding of why we would allow the system to have access to information about our lives. The launch of the PAX system made it possible to globally stabilise the endless chaos that was happening on the planet in the twenty-first century. Not to mention solutions to age-old problems in the field of energy, ever limited resources, military conflicts. The list of accumulated unresolved problems of the past century could be continued and it will take some time. The solution was proposed by science—deep analysis of big data at the level not accessible by us, humans. PAX has formulated a number of priority proposals, which implementation has allowed us to break the deadlock. What’s the next step? What challenges are awaiting us tomorrow? We, our laboratory, are looking for answers to

questions that are not yet relevant to society today.’

‘Wow! Alexandra, what does all this mean? I’m sorry, but your wording is extremely vague and foggy. And what do you think will be relevant for humanity *tomorrow*? And what is the timeline of this *tomorrow*? When is it?’

‘First of all, let’s see what we have achieved today as a species. There are about twelve billion people living on the planet. We live on six continents, and are well settled there. The demographic pattern has fundamentally changed after the scientific revolution in the field of medicine. Human life expectancy is up to three times higher than similar indicators at the beginning of the last century. This has changed everything—we no longer give birth to children *just like that*. Should we continue to adhere to the way of life we used to, we wouldn’t have been able to balance the ecosystems on the planet. But now these issues have been resolved. We have an operating base and a colony on the Moon and Mars, totalling ten thousand people. And this is the beginning of a new era for humanity. We start taking our first steps as a species in a new way for ourselves—as explorers and conquerors of new worlds.’

‘Alexandra, if you were speaking on the good old TED platform, I assume that the audience would burst into applause at this moment,’ Thomas smiled. ‘But what do you think will be the next step?’

‘It’s obvious, Thomas—we have to find a way to go beyond the solar system, sooner or later. And this is a complex task. In

addition to the colossal engineering challenges that we continue to work on, for example, such fundamental ones as the current speed limits not allowing us to go beyond our star system, or the astronaut's life support designed for exceptionally long journeys, for hundreds or even, perhaps, thousands of years. In addition to answering these questions, we must understand how we will populate those new worlds where humanity will come to.'

'And what is your version of the answer to this textbook question, Alexandra?'

'We believe that one of the possibilities of travelling infinitely long distances to develop populations in new star systems is of a hybrid basis.'

Thomas was numb for a second, froze motionless, and only his eyelids continued to reflexively perform the function assigned to them by evolution. Coming back to his senses, he continued:

'Wow! What's the core of such a hybrid system? Would you tell us, please.'

'We proceed from the fact that in the near future humankind will be not only biological species, but also completely digital ones, which would allow us to remove many barriers and restrictions that we cannot overcome now.'

'Alexandra, if I understand correctly, you are working on a possibility to place a digitized human consciousness, for example, in a robot, in some kind of mechanical device? Is that how it works?'

'That's about it, Thomas.'

‘To be honest, I couldn’t have imagined, preparing for our meeting, that the interview would take such a turn.’

‘I’m glad we’re having an interesting conversation, Thomas.’

‘Of course! Now, I think, the connection between your development of the *Interview* software package and the large project you have described, becomes clear—this is a step in the implementation of the program.’

‘You’re absolutely right, Thomas. The formation of a digital model of the person’s personality, based on information about one’s life and big data, is an opportunity to reliably assess the degree of readiness of the *Interview* module for the next stage of the implementation of the main task.’

‘I understand your experiments are going well. Digital models are credible, reliable—do they really work?’

‘Yes and no, Thomas. Things are going, of course, not as fast as we would like. And if it were so simple, it would have hardly caused public interest and your curiosity. At the moment, we provide stable functioning of only one model—my long-perished brother.’

‘Now?! Your brother?’ Thomas said, showing surprise.

‘My brother’s digital model—his name was Igor—is stable. The nuance here is that I have been investigating the cause of his death for a long time and have collected a large database of everything that somehow correlates with his life. Besides, it’s obvious that I knew him well. We were very close. When we realised that the digital personality models we were trying to

recreate were not working, their stability was no good, and their credibility was low, I decided that we should try to run a model based on my brother's data archive. Our tests confirmed that this was the right step. It worked.'

'Alexandra, to be honest, all this looks somewhat strange and even frightening. Your brother, who died a long time ago, has now come to life, so to speak, in his new digital incarnation. How do you communicate with him? I understand that you can talk about any topic with a digital copy?'

'This tragedy in our family happened a long time ago, Thomas. Today I'm feeling about it quite differently. It's been about 25 years since his death. Working with Igor's digital model for me means an amazing opportunity for the project. We are constantly refining his personality, based on my memories of how he used to behave too, how he talked, what he dreamed about, what was important to him. Everything that defined Igor as a person is now fundamentally important to be taken into account in his digital model, which, eventually, as we expect, will grow into something more important.'

'And what this *something more* could be, Alexandra?'

'We are working to ignite the fire of a new life. I would say so.'

'I'm just short of words, friends!' Thomas leaned back in his chair. 'As the interviewer with some experience, of course, I shouldn't have said that. I should always have the right and correct, precise words. But this is not the case. I'm more than amazed!'

Thomas continued:

‘Do you mean saying that you and Igor can communicate on any topic? And he responds, responds to you the way we are communicating with you now.’

‘Everything looks exactly like this if, for example, I connect to his program remotely.’

‘It’s amazing! But here is a question that also bothers me regarding this situation, Alexandra. Aren’t you breaking moral and ethical norms by recreating a digital copy of a person? He did not give you his permission to deal with his digital heritage this way, all the information and data that had been preserved about his life.’

‘This is another reason why my colleagues and I decided to develop the *Interview* software package based on my brother’s digital model. I have all the necessary civil rights, the legal basis for those actions with his digital heritage—you’ve used the exact term—that we carry out within the framework of the project. From the point of view of general moral and ethical norms, I do not see any conflict. I am glad to have the opportunity to communicate with Igor’s recreated model, and I believe that his mission is revealed in this project in particular.’

Before: The Red Button

A Meeting with Friends

‘Look guys, if we want our channel to take off, we need some breakthrough, relevant and resonant material’, Olga was talking. ‘Murzik of course is a pretty boy, and a hero—he saved a mouse from imprisonment in the basement at Tonya's granny’s—but I'm afraid it won't be enough to conquer YouTube, even here, at our place. Thirty-two people watched our last video about the repair of a bus stop near Meget, and I think, thirty were our friends, parents and relatives.’

‘Thus, we can conclude that Tonya’s Murzik attracts much more attention than our high-profile investigation about a broken bus stop glass on the Irkutsk-Angarsk public transport service and a heater failer at the bus stop’, Gleb agreed smiling. ‘So let's film our good old Murzik!’ Gleb roared with laughter.

‘You know what’, Tonya objected indignantly, ‘when November frosts come, it will be below minus 30, and if this stop is not put in order, it won't be funny to anyone at all. People will freeze waiting for the bus. That's what matters! I'm sure our report is necessary—we are doing useful work for the community, by the way! So let us guys stop moaning here that we are so unhappy with the number of views. Wait for a month or two.’

‘Listen, you may console yourself as much as you wish,

Tonya', Olga retorted. 'The point is that it doesn't change anything. Statistics: figures don't lie —the number of views is weakly low. No one really cares about this bus stop. We need to do something about it if we really want to make an impact.'

Three teenagers were sitting in a cafe next to the window, ignoring the visitors glancing at the young people, enthusiastically discussing in high voices something of their own. Tonya and Olga were sitting on one side of the table. On the sofa opposite, next to Gleb, warm jackets and backpacks comfortably placed themselves. Everything was white outside, snowflakes were covering the street with a veil. Cars on the road confidently, made their way forward letting pedestrians cross the road at the traffic lights. A touch of frost and the first snow brought locals and tourists together in a cozy, warm cafe in the city center. The waiters were taking orders from the visitors flowing in and casting stern glances at the table where the trio had positioned themselves, consuming two small bottles of drinks already over an hour.

Tonya, blowing air through a straw into a bottle of coke, opened the Irkutsk News app on her communicator. 'Here's what people write', and began reading out short annotations to articles in the app.

'The Irkutsk Region Government has approved a federal program for the further development of a transport infrastructure in the region. By 2145, the energy supply trunks for a new transport system will reach far wider than just Irkutsk. All

major regional centers, including Angarsk, Usolye-Sibirskoye, Sayansk, Tulun and a number of other cities will gradually become connected to the modern ecosystem of Russia and the entire continent, following the program of further integration into the new economy ... The travel time from Moscow to Irkutsk will take no more than 6 hours on a high-speed shuttle...'

'Or here's another one', Tonya was scrolling through the news feed further, 'look, this news has already been viewed by over 5,000 people. "The construction of the second stage of the large Baikal Tourist Center goes on. Every year the Irkutsk region attracts hundreds of thousands of tourists from all over the world. A new wellness complex, designed for 10,000 residents, will provide a five-star level of comfort for our guests..."

'That's not the right place to check, Tonya! Give me the phone!' Gleb tried to grab the communicator. Tonya covered it with her hand, stopping her friend's cheeky attempts. 'Open it yourself then! Under the heading "What happened". That's exactly what everyone is always interested in. There'll be the most of views there.'

'OK, let's look through "What happened", Tonya agreed. 'Well, well, what do we have here... – "A happy reunion. A five-year-old girl lost her parents in the Siberia Shopping Center. The store employees helped the child and the girl's parents..."', "A dangerous accident in the city center. An old electric car lost a wheel when turning from Zhelyabov to Federation Street. The rescue service helped the owner to evacuate the car..."', "The

buyer could not pick up his order at the self-service point. The equipment breakdown led to a short-term malfunction of the passport scanner...”

‘Oh yeah, very impressive’, Olga drawled, covering her mouth with her hand and yawning. ‘The place is just so lively. The views are sky-high, 314 about a wheel on a wreck in the city center.’

‘Wait a minute! There may be something in it!’ Gleb started tapping his fingers at the table, looking Olga into the eye. ‘Let me have a better look at the message about the passport’, Gleb turned to Tonya.

‘Well, OK, have a go’, Tonya pushed the communicator across the table towards Gleb.

‘So’, Gleb began reading the message carefully.

“A Citizen's Passport.

Ilya Ponamarev, the Irkutsk News editorial office correspondent, recently met with a resident of the city who couldn't have picked up his order at the self-service department of the MegaMarket delivery service due to a failed passport scanner of a citizen of the Republic.

Why did this seemingly ordinary story attract the attention of our editorial staff? Our readers might ask such a question. What's so special about this story? Let's figure it out.

Let us briefly cover a historical and political-organizational situation. This case requires an understanding of the modern social system, the interaction of an individual, society and governmental structures. Let us remind our readers the basics in

terms of structural and technical components.

Since the end of the 21st century, the passport of a citizen of the Federation, or, as it was also called, the *Tracker*, was implanted into the body at the stage the woman started carrying the child or while it was growing in special incubators, in maternity hospitals. The Tracker or passport, if you prefer it, has long been the key to all the modern infrastructure. Whatever you did and wherever you were, the digital identifier provides you access to everything—from the ability to enter your apartment or house, to get by transport to any point within the city or the country, even to travel all over the planet. You would not have been able to go to a grocery store or a beauty shop, and, perhaps, to any business or trade company without a passport. A person just would not have been served without a citizen identification. The passport provided continuous monitoring and control of the medical indicators of its owner, which was required not only for the citizen support by appropriate services in emergency situations, but was needed primarily for timely, and therefore early detection of negative trends in the health condition, allowing to make required amendments to the individual health program. Finally, last but not least, an important function of the Tracker was security. If the situation occurred when the life, physical or psychological health of an individual were threatened by something or someone, the PAX system—a distributed system of quantum computers which was monitoring, analyzing and managing the main life systems—

would identify relevant situations and would react to them even in a preventive mode. Summing up, without a passport, a person was not a citizen of the Republic and could not interact with any part of it in the official or commercial sphere. One was simply invisible to society.

It would be safe to assume that bearing the functions of the tracker so critical for a person, the counterpart of the PAX system, responsible for identification and interaction with a person, has to be reliable as a must. For a smooth functioning of the system with a high degree of probability, close to 100%, any built-in scanning system even for the least critical public infrastructure at the very least has a double for back-up. And in critical applications, for example, in automatic control systems of a high-speed mainline shuttle, the system has a four-fold redundancy. Moreover, two of the four backup control units operate remotely via ultra-high-speed communication networks. In the entire history of the PAX, not a single failure of control systems with triple redundancy has been registered, and malfunctions in systems with two modules have been an exceptional event subject to thorough investigation and identification of the reasons for failure. Each such situation is thoroughly investigated by the PAX security specialists in order to identify potentially weak links and eliminate them.

Taking into account the theoretical basis and the unique nature of the situation that took place in Irkutsk in an ordinary post office in the first week of October 2142, our agency could not

help but pay attention to it. We found a resident of Irkutsk, who came as a first-hand participant of the story, and asked him about what had happened.

Irkutsk news: Alexey Petrovich, please tell us how it was—what happened to you on October 7 at the MegaMarket post office.

Alexey Petrovich: There's nothing to tell. There's not much to tell, I'd say, there's nothing. In the evening after work I went to the post office, next to my house. I wanted to pick up my order—I bought my daughter a birthday present. Her birthday was on October 10th. Anna, my wife, and I decided to make a gift for my daughter ...

Irkutsk news: Alexey Petrovich, please tell us in some more detail just what it was that happened there in the post office.

Alexey Petrovich: Nothing happened. That's what I'm trying to tell you. So I went to the post office. I checked on my phone what my cell was, where my order should have been stored. I approached the cell, but it would not open. That's actually all. You can see everything on the video, on the CCTV.

Irkutsk news: Alexey Petrovich, do you maybe happen to know why the cell in which your order was stored didn't open? Might the lock mechanism be broken?

Alexey Petrovich: Well no. What can I know. They seem to have said later, when the courier delivered my order to me, that

there was a problem with the program. There was something wrong with it. That's how I got it.

Irkutsk news: Alexey Petrovich, thank you for your answers. And wish your daughter a happy birthday from us!

All the details of this seemingly unremarkable story, as told by Alexey Petrovich, have been transferred to the PAX security service, which will now carefully investigate the situation. We will keep you, dear readers of the Irkutsk News, informed of its development as new details become available to our editorial staff."

'Well, why do you say it's interesting, Gleb?' Olga asked.

'What do you mean, why! This is the very story for prime news. It will attract attention!' Gleb retorted excitedly. 'Don't you see that!?'

'What? A report about a guy who failed to pick up his order from the post office? Gleb, what's going on with you?' Tonya looked at him in surprise. 'It's better to shoot videos about Murzik and the rescued micae! And then, there will be a better feedback altogether!'

'Yes, damn it ... Well, you... what does the man have to do with it, Tonya!' Gleb answered calmly with deliberation. 'It's about the passport, about the Tracker, about what it means for a person of today! About what it means to be outside the system, the world! That's what we have to make our next video about! And it will definitely be an interesting story!'

'If I understand your idea correctly,' Olga went on, wrinkling

her forehead a little, 'you are suggesting that we meet with divergents!?' So what is it?'

'Bingo!!' Gleb exclaimed even too loudly.

The visitors of the cafe turned in surprise to the table, at which a tense discussion of the teenagers was going on. A slim guy sitting opposite the two girls at the table turned slowly and looked in the cafe hall. 'Excuse me', Gleb muttered.

The waiter came to the table. 'Do you guys want to order anything else? You've been sitting here for more than an hour and still drinking two bottles of Cola. I don't mind. You are welcome. But there are people standing out there, waiting for the seats to be vacated. So, will there be anything else to order?'

'No, thank you very much. We are just about to leave'. Getting up from the sagging sofa, Olga answered.

Everyone started collecting their belongings. It was already quite dark outside.

'It's been snowing! That's so beautiful! Everything is clean and white around!' Gleb spoke in a slightly singsong voice.

'It's just a little cold somehow. Brr ...' Huddled in an oversized full-length down jacket, Tonya muttered, wrapped as well in a scarf that covered her face almost to the eyes. 'I want to go home.'

'Okay. Let's do it. I'll think over all the details of the script tonight, forward it to you, and tomorrow, right after class, we'll discuss everything again.' Gleb suggested.

'I am for. We'll discuss everything tomorrow. Bye!' Olga began saying goodbye.—I hope you're not serious about

Cheremkhovo, Gleb. This story about an old abandoned mine and its weird inhabitants may end badly.'

'Well, let's think over everything and make sure that all goes according to our plan, so that everything is OK! Well, all right, bye!' Gleb turned around and, making sure that he had time to cross the roadway between the stream of cars, ran across to the other side of the street.

'I don't know, Tonya, somehow this whole idea looks somewhat ... It's simply dangerous'. Staring after Gleb, Olga noted.

'Look, I agree, Olga. But, on the other hand, we will never be able to achieve anything if we only do what is safe and strictly by the rules. Let's talk together again tomorrow.'

The friends hugged each other and headed in different directions.

The Client

It would seem, one could physically touch the evening energy of the city. Just reach out. Cafes and restaurants on the first line of the central streets, fashionable dress stores outshouted each other with their bright lights in an endless succession ready to lure a new buyer in. High-rise office centers and employees still, though it was so late, unwilling to give in to the will of fatigue, and the endless river of transport carried people over to friends and families, accelerating the pace every minute. Everyone after their own destination, their own purpose.

‘Tonight Irkutsk reminds me of Christmas,’ Sergey thought, sitting on a bench in a park, sipping hot tea with cognac from his small tin flask. He chose a place where no one would disturb them. And the weather was perfect for business meetings. A thick snow veil did its job—you could see the silhouettes, but nothing more. Sergey checked the weather forecast on his communicator. No changes predicted for the next two hours. “Snowfall will continue until at least midnight.”

‘Wonderful. Let's take this as a good sign,’ Sergey whispered. He angled his left arm and slightly pressed his palm on the end of the sleeve, holding two fingers for a second, as if measuring his pulse. On his wrist, the scale for adjusting the temperature of the down jacket was barely noticeable, Sergey lightly ran his hand along it. ‘It's better this way. Too hot’.

‘Good evening. Sergey?’ A man in a gray coat and patent leather shoes, in a lush ushanka hat, obviously not dressed for the weather, approached Sergey sitting on a bench.

‘Hello, Igor. Please sit down.’ Sergey gestured to a place to his right.

‘I suggest we walk a little around the park. Somehow I didn't guess the weather today. I hope you don't mind,’ Igor turned to his counterpart, carefully examining him from head to toe.

‘A walk sounds good enough. Let's go.’

‘You were recommended to me as an exceptional specialist. They say you are able to turn day into night, and night into day,’ Igor addressed his companion.

‘Sounds mysterious, but I must admit my professional skills are somewhat exaggerated. If I can briefly describe the nature of our upcoming work with you, if of course, I understand the task correctly, we can say that those who made recommendations are not that far wrong.’

‘Great, Sergey. May I put this straight? I am a man of business and time is key for me’, Igor stared at Sergey for a second.

‘That's why we are meeting here with you: to discuss the job and the terms for it to be done. It would be unfair to drag out our conversation longer than required, given your dress-up gear.’

‘It's good. As I see it, you are an observant and thoughtful person. You were recommended to me as a specialist in your field. OK then. What I need is to have the opportunity to exclude myself from the system, to become invisible when necessary. Or, as a second option, to appear to the system as someone else.’

‘The second task will be much more difficult, Igor. Such a solution would require more time and additional resource.’

‘You will get everything you need. But time, Sergey, as I noted, is an important issue. I would like everything to be ready within two weeks.’

‘I am ready to provide a solution to the first part within the next week. The second will require an additional two weeks, and the payment will have to be double.’

‘All right, Sergey. Great!’ Igor agreed without hesitation.

‘I would need samples of your DNA, all the indicators of your personality, from your voice to a complete blood count.’

‘You already have some of the answers, haven’t you?’ Igor glanced at the counterpart. ‘Anything else you need will be forwarded to you. Nice to meet you, Sergey. I am confident that everything will go according to the plan. It can’t be otherwise.’

‘My feet are frozen stiff.’ With a quick step, almost running, Igor moved away from the hacker.

Sergey walked around the park, breaking up the fluffy snow under his feet. Having settled down on a bench to wait for his new client, Sergey took out a communicator and started carefully looking through the collected information. The built-in scanner did its job.

“Petr Ivanovich Iganov.

Gender: male.

Citizenship: citizen of the Federation, Russia.

Age: 96 years old.

Primary place of residence: Moscow.

Height: 1 m 78 cm

Weight: 79 kg

Pressure: 123/86 mmHg

Body temperature: 36,5 °C

Blood type: 0(I) Rh+

Access to services: unlimited.

...”

‘A weird guy...’ thought Sergey. ‘A well-known entrepreneur, wealthy industrialist. There is something to work with. I hope he

flew to Irkutsk not only for the sake of a five-minute meeting with me. It's cold for him somehow.'

Sergey took a couple of sips out of his flask.

'Damn it! The tea is already cold at all!'

'Sasha, you keep an eye on this "Sergey" until the end of the month.' Pyotr Ivanovich gestured in quotation marks.

'All right, Pyotr Ivanovich.'

'Nothing else at the moment. Just make sure everything goes according to the plan. That he does his job and keeps his nose clean,' Iganov ordered, rubbing his hands vigorously, trying to warm himself.

On the monitor at the eye level of the passengers in the back row, a man in an ankle-long black coat was heading towards the exit from the park.

A tall man in a suit and tie stepped out of a dark-blue limousine. The head of security watched the red lights of the boss's car slowly picking up speed and got into a nearby four-by-four. He watched a man in a black coat in the park for several minutes on the communicator, then pressed a button on the screen. A drone parked neatly on the roof of the car.

The Plan

'Alice, turn off the music.' Olga gave instructions to the taxi management system.

The car was immediately filled with the muffled sounds of the road.

‘Let's repeat the main outline of the scenario. Gleb, what do we have there? Let's go through it once again’, Olga turned to her friends.

‘It's all straightforward,’ said Gleb. ‘(1) Filming on the way to Cheremkhovo. You and Tonya are on the camera. Inside the cabin, you say what kind of town it is and why it is so important for our history. (2) We take a break on the way to shoot more footage that we can then use when editing the video. (3) We do a few shots in the town center when we arrive. We will try to talk with locals on our topic—what they know about their neighbours, what they have heard about divergents, are they worried about such a neighborhood. It is obvious that they know and have heard. The question is whether they want to talk about it,’ continued Gleb. ‘Whatever it is, no matter what they tell us and no matter how they react, such an information will only benefit us. The fourth and most important is the main task: surveying the mines. If we're lucky, we'll be able to chat with the divergents themselves.’

‘Yeah, if we are lucky’, Tonya giggled nervously. ‘If we're lucky, we won't talk.’

‘Listen, with such an attitude’, Gleb turned to Tonya, ‘better not go there at all.’

‘Gleb, you really did a great job’, Olga interfered to stop the next verbal fight and a heated discussion in the bud. ‘I read the script you sent, all your notes and references. Really, well done! Everything just to the point.’

‘Thanks!’ Gleb smiled. ‘I really hope that we will outplay Tonya’s Murz!’

They all burst into laughter.

‘Okay, Tonya,’ Gleb continued, trying to set his camera somewhere. ‘We need to work out the first part—the introductory words about the history of Cheremkhovo.’

‘Take one!’ Gleb declared somewhat solemnly.

Tonya fidgeted in her chair, fixed up her hair and began the story.

‘Hello everyone! Today our whole team—Olga, Gleb and myself—are going to Cheremkhovo to the abandoned mines. As for now we have already covered about half of the way to the town, located about 19 miles from Irkutsk. Underground transport highways in the direction of Cheremkhovo are yet not operational, so we make use of a good old electric car for our journey. This means that the travel time will not be measured in minutes, as many of you are used to. I must admit, the road to the town is not in the best condition. So don't be surprised—the car can sometimes shake a little on bumps. We should be there within half an hour.’

‘Cheremkhovo will soon turn 400 years old, friends,’ Tonya continued. ‘For many years, the city had been living only on coal mining. But since the middle of the 21st century, mining had stopped, which further added to the pressure on its economy. The decline in population, unfortunately, continued. Now about ten thousand people live in Cheremkhovo. Today, the main income

for citizens is from two sources. The first one is tourism. Many tourists coming to relax at our unique Baikal resort, known all over the world, are interested in seeing the other side of life. The open-pit mines of Cheremkhovo, where coal mining has been carried out for about 200 years, make a strong emotional impression. Coal mines, like bleeding scars and ulcers on a live body, are a clear demonstration of how difficult the ecological situation in the region used to be. If you take a bird's-eye view high from the sky at the entire mining quarry, a complete picture of the damage to the ecological balance caused by man at the time appears. These are such complex routes—walking and flying around the site—that local guides practice, entertaining tourists. They say that this program is very popular and well-paid.'

Tonya stopped, 'Gleb, won't this be too much—"bleeding scars and ulcers on a live body"—isn't it too eloquent a description? There are yet no such scars there.'

'Tonya, first look into literature, the history of the town, archive documents. I have prepared thoroughly—the text is based on proven facts. There're no my devices here,' Gleb insisted on his line. 'You'd better keep moving, come on. We have absolutely no time left before we get to the city.'

'Mining at Cheremkhovo had been stopped long ago', Tonya continued the story, looking into the camera. 'Thermonuclear ITERs provide new energy for the world, as an inexhaustible source of modern power and potential for industry and economy.'

But much more interesting for our story is the second source of income for citizens. About 15 years ago, a new high-tech production of capsules for Trackers was launched in the city. Yes, of course, you are right, those same Trackers or identity passports, the unique chips that identify a person, tracking bio-activity indicators, and which also provide a preventive security function. It is important to emphasize, please don't be confused, we are not talking here about production of all the complex inner filling for the Tracker—only about its shell. We note right away that although this is a shell of a chip, it is not less complex or sophisticated because of this. Just imagine—the entire range of capabilities of this device has to function reliably in the human body for at least 300 years. Life expectancy at the beginning of the century has reached 200 years. Our contemporary supercentenerians, who get listed in the Guinness Book of Records, live up to 220–230 years. Three centuries is exactly the lifetime of the Tracker as drafted by the designers. Such a chip in my body has been functioning for more than 20 years. Guys, imagine what a critically important element this shell is!

‘The paradox of this story is this.’ The camera switched to Olga. ‘On the one hand, the regional authorities, stimulating the economy of Cheremkhovo, have launched the production of capsules for Trackers. This is an excellent investment, help for residents, new jobs, taxes to the budget, employment possibilities. Nothing to lose, a world to gain! At the same time,

there are rumors that it is in Cheremkhovo, not far from the city, that one of the communities of renegades or, as they are also called, divergents is located. And as you know, divergents are those who reject new opportunities offered by modern infrastructure of the economy, a new quality of life, access to which is possible due to the integration of the chip into the human body even before birth. Tracker is the key to everything! From the monthly minimum social allowance for a citizen of the Republic, to the opportunity to get to the lunar colony. Unless, of course, you are very lucky, or you are very rich, or you are directly related to the scientific programs under development on the Moon.’ Olga smiled and continued. ‘In order to safely hide themselves from the PAX system—and divergents view it as one of the greatest evils of modern life, which deprives us, as they believe, of the right to be individuals, to choose, to destiny and life itself—they have to look for nooks, remote places to carry on life.’

‘Olga, but don’t they have to earn for their living somehow, to buy food, clothes, and anything else necessary?’ Both girls were already on the camera.

‘That’s right, Tonya. Nowadays, it is difficult to live without a digital identifier, to say the least. The reason for choosing Cheremkhovo, as we understand, is not accidental at all. In mines or open pits, in an abandoned industrial zone, there may be laboratories, some production lines or workshops where people can work, almost invisible to the world.’

‘Olya, it doesn’t work out somehow. How can it be that we have heard about divergents in Cheremkhovo, and the all-seeing PAX is not aware of what is happening under its nose. It's hard to believe such a story!’

‘This is our main goal for today, Tonya, to understand how really things are in Cheremkhovo, what is happening there, who works, how divergents live, if there are at all.’

‘Great! Filmed! Well done, Tonya, Olya! Camera, stop!’ Gleb gave instructions.

The Signal of the System

Alexey was walking quickly along the brightly lit, seemingly endless corridor. On both sides of it, at regular intervals on each door leading to the offices of employees, there were screens displaying department numbers, first and last names. Alexey looked at his watch. ‘Pulse 115. Need to calm down. Sergey Semyonovich would not stand weakness. And being nervous is definitely not a manifestation of strength.’ He stopped abruptly and began to take short breaths, leaning against the wall, ‘Inhale-exhale, inhale-exhale. Everything is fine. I'm good. Inhale-exhale...’

‘Head of the Emergency Monitoring Department. Sergey Semyonovich Zhdanets’.

‘Sergey Semyonovich, good afternoon. Is there a chance to have a quick talk now? There is quite an urgent issue’. Alexey decided that it would be prudent to call him first before

interrupting the boss's work schedule.

‘Ah, Alexey! Hi! Come in. I'm just about to leave for a meeting. Please walk me to my car. Will we have time to discuss everything?’

‘Of course, Sergey Semyonovich! I'm already here, right behind your door.’

‘Sergey Semyonovich, there is some reason to believe that the meeting may have to be postponed. The issue is quite urgent!’ Alexey began from the doorway.

‘Really!? A morning can't be good? I see you've decided to re-enforce the old rule.’

‘Sergey Semyonovich, here is a story. Three teenagers from Irkutsk decided to shoot a video for YouTube about the settlement of divergents near Cheremkhovo. They are already in town, in Cheremkhovo, arrived there. That's to start with. In addition, Sergey Semyonovich, the system classified this situation as requiring special attention.’

‘Well!? Really, Alyosha? And what does the AI find so important in this case?’

‘So that's the question, Sergey Semyonovich. If it wasn't for the red marker, would I have worried you over trifles! The system predicts with a 94% probability a connection between teenagers, Iganov and a hacker from Cheremkhovo.’

‘Right!?’ Sergey Semenovich seemed even more surprised. ‘The same Iganov, the president of that group... what's the name... System X?’

‘Precisely, Sergey Semyonovich.’

‘Indeed, Alexey, it does look right for you to take me, so to speak, out of the flow ... let's go through everything in detail.’

‘It turns out that the story is as follows.’ Alexey started reporting quickly. ‘The other day in a cafe in Irkutsk, the teenagers were discussing a case with a broken mail machine. Moreover, as our security officers found out, the reason for the breakdown at the post office was an external impact on its scanners.’

‘Was it?’ Sergey Semyonovich looked at the young employee in surprise. ‘That is interesting.’

‘So it is, Sergey Semyonovich. More than amazing. Furthermore, the system recorded a meeting, again in Irkutsk, of Iganov with a certain person, at first not identified. Later the same day, the system by the digital passport identified a citizen named Alexey Petrovich Fomin at the metro station entrance in the center of Irkutsk as the person with whom Iganov had met. So, Sergey Semyonovich, this Fomin guy is a character directly involved in the story of the broken mail machine, which led the bunch in the cafe to the idea of a trip to Cheremkhovo. And then it's already possible to put two and two together into a bigger picture without the brains of the PAX.’

‘Well-well, Alyosha,’ Sergey Semenovich drawled, looking at some additional information on the screen, ‘it wouldn't have been easy for you and me to see the picture this way, from this angle, to connect everything like this, and even actually online. A simple

mail machine, which did not succumb to the hacked Tracker of this fashion specialist, let him down.’

Alexey was waiting for the decision of the boss who studied the detailed report on the computer for a few more minutes. Having received authorization, the PAX initiated provisional detention of the hacker and Iganov, and the safe evacuation of Olga, Tonya and Gleb.

Before: Taxi

“It’s time to leave, Inda! We’re going to be late!” Rodger said as loudly as possible, on the verge of shouting, “Are you ready or not!?”

“Just a few minutes. You don’t want me to look worse than Oprah today, do you! I need a little bit more time.” Inda was irritated and shouted back, so that so that her voice would surely reach the ground floor. “God, it’s the same thing every time. First he pushes me, then he mumbles that I should have paid more attention to the details of my appearance so that everyone would know who’s who.” Inda muttered, looking at the various earrings arranged in beautiful caskets on the dressing table. “What to wear, so that this ... Oprah would finally understand her place ...”

Rodger plunged himself into an armchair in the living room, glancing from time to time at the changing background of news pictures on the large screen panel on the wall.

“How long will it take us to get to the theater, Sith?” Rodger asked addressing the panel.

”Rodger, it will take no more than an hour to get to the Grand Opera. The roads are all clear at the moment.” A route map appeared on top of the news release on the panel, occupying about a third of the screen. “The starting point of the route is Luxembourg. Destination: Grand Opera, Paris.”

“Let me have a closer look at the route.”

“The optimal route, Rodger, would be as follows,” the assistant replied, “the road to the central transport hub will take you and Inda 10 minutes, at the station you will change for a high-speed TGV capsule. The journey time to Paris will take no more than 30 minutes. Then a taxi will be waiting for you at the central station in Paris, which will take you to the theater. You'll have another 10 minutes left, Rodger. You should leave the house no later than 18:00, in 10 minutes, so that you and Linda have enough time to get to the theater with no fuss before the performance begins.” Sith summed up. “Rodger, would you like to order some drinks or something special for dinner while you are on the train to Paris?”

“Probably not. In the evening, after the theater, we are meeting with friends. I don't want to ruin my appetite. Moreover, they promise that the chef there is just a wizard.”

“Of course, Rodger. Is there anything else I can do for you?”

“No, thanks. Unless you make Inda hurry up.”

“She's already coming down. You can leave now. The capsule is waiting for you in front of the house.”

“OK,” Rodger replied, getting up from his chair in his new blue-black dinner jacket, elegant shiny shoes and a maroon bow tie. It seemed that the bow tie was oversized, given Rodger's slightly dry neck. But he couldn't help wearing it. “Inda would be offended. Today is her birthday—everything should emphasize that she is special. Today is her day,” Rodger thought.

Inda was slowly and carefully going down the staircase, lifting the hem of her dress, which shimmered with soft turquoise shades. Its simple classic lines and high rigid top emphasized the refined shape of Inda's shoulders, while the fabric below the waist emphasized the light and slim figure of the owner of the dress. A small handbag complemented elegant blue shoes trimmed with dark beads.

"You are absolutely dazzling, dear!" Rodger almost whispered, staring at his wife with delight. "I'm glad you've decided to wear these earrings today. 'Almost cobblestones on the ears,' that's how you described them, if I'm not confusing anything." Rodger said, smiling broadly.

"Thanks, Rodge. I have to say, you look pretty good too. And the bow tie complements perfectly the color of your brown eyes."

"I didn't doubt a second choosing it, Inda. Thank you, dear. It's time to leave. The performance starts in less than an hour."

The doors of the capsule started opening in the opposite directions as the couple approached, warmly inviting them to the passenger compartment. The dim light in the cabin gradually brightened, and the approach to the doors was additionally illuminated. The snow-white interior of the capsule trimmed with light wood stressed the status of the passengers—their lifestyle implied precisely this kind of style, refined and exquisite. Nothing prevented access to two free-standing chairs, where Inda and Rodge were supposed to be accommodated. The seat closer to the entrance moved back a little, providing

even more space for the first passenger to get in. Rodger held out his hand, inviting Inda to come into the cabin. At the same moment, a step silently moved out of the capsule body. Instinctively ducking a little, Inda climbed into the cabin and took her seat. Rodger followed her. The doors closed quietly, and the seat belts fixed the passengers in place, securely and delicately. The capsule started its smooth and soundless acceleration, getting out of the street with cottages on both sides, only slightly visible through a dense hedge, neatly trimmed the other day. Approaching the entrance to the underground highway, organically integrated into the surrounding landscape, the capsule slowed down a little. A new message appeared on the route diagram on the front panel inside the car.

“Entry 51, Highway A7: Diekirch–LUX International Transport Hub.

Distance: 40 km.

Travel time: 7 minutes.”

The capsule was just following a taxi with a pronounced orange stripe in the middle of the car. Speeding up, the cars descended into the tunnel leading towards the capital, where the main transport hub of Luxembourg was located. A minute later, the capsule joined the traffic flow and was already rushing along the main highway at the speed of 350 km / h in the leftmost lane, where there was no speed limit.

In recent days, mild April weather has settled in the Western Europe—spring was quickly taking over its domain. “It’s good

that we didn't have to put on any coats,” Roger thought. The capsule suddenly shook slightly, as if it had fallen into an air pocket. Sometimes it happened on a plane. Inda was all absorbed with something on her communicator and did not pay any attention to this circumstance. Rodger took his communicator out of his jacket pocket and made a note, glancing at the information panel indicating the current route details: “Check the A7 highway, 31 km—field gap?”

Rodger Fehler was one of the high-ranking officers of the Central European Transport System, or ETS, the history of which dated back to the last century. At the beginning of the 21st century, forward-thinking engineers and businessmen began to realize that the economic model of the time required major changes, a profound reform. The population of Europe was aging rapidly, unwilling to make a vital investment into the future—every decade the birth rate was going down. Politicians stimulated migration by providing an influx of fresh blood. But in the end all this led to even greater economic problems, since the main issue couldn't be solved—the performance indices of companies, and the economy on the whole, were on the downward trend. Economic challenges could have been overcome by consolidating society, resources and, of course, keeping in line with the advanced scientific developments and achievements.

When it became obvious that the first high-risk privately financed projects were working, when their positive impact on

the economic growth of the region and the whole world could not be ignored any more, politicians started looking closely at those *crazy undertakings*, as they had been addressed before. Realizing the importance and the potential of what was happening, they could not have afforded to miss the opportunity and stay aside, watching the birth of a new model of the world, a new world order. One such project was the construction of a distributed transportation tunnel system in North America. In the middle of the last century, not only was the entire American continent riddled with underground tunnels, Europe did not fall behind either.

Europe had thousands of underground highways connecting cities from Ufa in Russia to Lisbon in Portugal into a giant network. A modern, fast, safe and reliable new transportation system acted as a springboard for the global economy, and already in the first decade after its launch added another 4% to the global GDP growth. These changes could not have been achieved in such a short time were it not for a radically different scientific approach, high-tech developments and a breakthrough in computing technology. The launch of the PAX, distributed system of cluster quantum computers, provided the additional booster effect. The name PAX was then given to the artificial intelligence, which for the first time surpassed the intellectual potential of a human being.

Twenty years later, the economy of the planet, the political structure, the whole society and the world have changed. The

most daring and inventive science fiction writers of the time could not have even expected of humanity to be capable of mounting the pace of development so quickly and overcoming so global challenges.

The PAX served as a support for humanity in the invention of a new transportation system too. The logistics infrastructure, entangling the entire planet with a web of multiple multi-level underground tunnels and nodes, required an infinitely capacious, reliable and efficient energy source. A source not only free of a negative impact on the natural system, but on the contrary helping to restore the ecological balance.

The operation of ETC alone not even taking into account the American and Asian transportation systems, would require over 10 thousand gigawatts of energy annually.

The challenge to provide for a historically high level of energy consumption all over the world was exactly the factor hindering the almost universal use of the fundamentally new means of transport in the middle of the last century. The energy consumption of new levitating vehicles, based on the properties of superconducting magnets, was comparable to cars in the early 21st century. To deploy power supply lines providing for capsules movement, as the new means of transport was called, and to keep them in operation, presented an energy-intensive task. The PAX has helped the scientific community to bring a long-nurtured dream of the 100 years of history development to the level of unquestionable efficiency. The first large thermonuclear reactor,

ITER, put into operation in the first half of the last century, was refined on the basis of an expanded list of AI recommendations. This resulted in a network of ITER-type installations with an almost infinite energy potential available for civilization. The cumulative estimate of the new power system capacity reached up to 1 million gigawatts. The Human has reached the next milestone in its development.

“Inda, Rodger, we're coming up now.” Sith interrupted the thoughtful passengers. “Please get ready. Your shuttle to Paris is waiting for you on the second platform. It will take you one minute to get to the shuttle.”

The capsule slowed down and stopped in the immediate vicinity of one of the travelators reading “To platform No. 2: Luxembourg–Paris Shuttle”. The tracking and registration systems at the station automatically identified Linda and Rodger and registered them for all the required transfer hubs. All there was for the passengers to do was to try to be not too late for their flights, wherever they went.

“I will be waiting for your decision regarding the time to come back home. Have a nice evening, Linda and Rodger.” Sith said a polite goodbye to her masters.

“OK, Sith. Agreed. I'll let you know,” Rodger said, helping his wife out of the capsule.

Before: The Pill

Before, when someone was taken ill with anything more serious than a cold, the first effective recommendation that one might have heard was to see a doctor. Everything used to start with a GP and tests. It was necessary to take all kinds of tests and examinations, and to wait for the results. When everything was ready, following the established procedure, the puffy medical record made its way to the therapist, whose purpose was to interpret the data obtained, to come up with a diagnosis and to tailor a suitable treatment plan. Medication, physiotherapy, daily routine, physical activity and similar recommendations would make up the traditional and standard list for most non-critical physiological disorders for a common man. In some cases, it was much more complicated. One had to take examination on bulky and, as they proudly brand it at the time, high-tech medical devices. Incomprehensible abbreviations and words such as CT scan, MRI, ultrasound, ... implied the need for experienced specialists understanding the subtleties and intricacies of examination methodology to work with such devices. Medical equipment was expensive and few hospitals could afford it. More than that, in some countries, such devices were available only in large state health centers, and those who needed additional research had to queue for up to several months. But even then technologies already allowed us to take a look

inside ourselves – to see human organs in sufficient detail to understand their condition, to obtain digital data, to exchange information remotely with other specialists, for example, with more experienced doctors. Human blood and other various biomaterials tests became more and more accurate and detailed. It would seem that the results of the tests gave all the answers even without additional interpretations and study by doctors, including by those same therapists. If an indicator was still inside of the reference values, there you had the result – healthy and sound!

There were also those who thought they knew everything better on their own. They would diagnose themselves in line with the descriptions of a similar conditions on the Internet, would find a treatment program in the recommendations. It's worth saying that such a system had a certain potential – self-healing really sometimes worked better by the will of circumstances. But unfortunately things did not always work out well. The Internet was, of course, a good and useful thing. But common knowledge had it that in that source of world wisdom there was plenty of garbage and pseudo-healers who would know everything for sure, there was more than enough of "techniques proven on thousands and thousands of patients around the world". Often self-medication, based on unverified and unprofessional recommendations would lead to sad, simply fatal results. When it became obvious that there was no way to do without specialists, the patient would turn to the doctor, but it was hardly possible

if at all to help. The disease would happen to be neglected to such an extent that it was only possible to get rid of it by prayers and a miracle, and not without applying some practical scientific knowledge. Sometimes even in such situations of irresponsible neglect, it was still possible to save patients. But such cases were exceptional in a series of crippled and dead.

It was not, however, always the case that people would turn to the Internet for answers «to medical issues". At the same time, the price for professional doctors' services was not affordable to everyone. When the problem implied a long-term treatment program, such situations caused particular concern if insurance (in the early 2000s, financial coverage of certain situation risks, for example, illness, injury or death) did not cover the specific case of a patient.

A person and sometimes even a family could be completely ruined by endless bills for tests, patient care, the work of specialists and operations. Faced by such a dilemma, the choice was obvious – a patient not wealthy enough would have to borrow money, apply for a loan or hand over his fate to state-provided medical services, the practical professional level of which would often notably differ from the commercial one. Of course, there were exceptions to the rules. But unfortunately free medicine of that time would rarely align with the real needs of society.

Social inequality meant much greater opportunities for those who held the keys to all the doors. The wealthy (people who owned large assets: financial capital, real estate, such as houses,

apartments, office centers, manufacturing companies, etc.) could afford to build their lives differently, providing their families with a different quality of living, and a different level of medical care. The key factor of a different way of life for well-off people, as they were still called at that time, was not so much the level of medical care. Their whole life was arranged in such a way that the very need to turn to medical services would occur much less often. Life in ecologically favourable areas of the world, better food, higher water quality standards, the opportunity to lead a healthy and rhythmic lifestyle, to travel and relax more often and more, ... – all that of higher quality was available to them. The whole set of opportunities for such a small group of people in society provided a real advantage – they lived differently and at a different level.

Wealthy people would communicate with medical specialists not so much when there was an acute need for it. They would undergo regular and planned examinations. This practice corresponds to the key condition of a healthy life – timely diagnosis and prognosis of the patient's condition. The problem should be addressed even before it manifests itself – this rule No. 1 in modern medicine was available to a limited rich stratum of society and its political elite. Significantly less than 1% of people in the world could provide themselves and their loved ones with a healthy lifestyle that is accessible to everyone today.

When, nevertheless, the course of life required immediate communication with a doctor, there was no doubt who to contact

how to do that. There was no reason to search for answers and recommendations on the Internet. A personal doctor was the first priority on the contact list.

Exceptional conditions of service for privileged patients was not a number one condition. The key to effective treatment was the experience of a specialist, an accurate diagnosis and the right program, high-quality medicines and that very high-tech equipment for a comprehensive examination of patients. Experience and competence were valued most of all. Precisely this was what everyone was willing to pay for. There were also private clinics unknown to general public. One would not be able to find contact details and location of such a medical institution anywhere. There was no data either in offline directories or on the Internet. Such clinics did not need advertising and a growing number of clients. The cost of their services was so high that the care for one patient would cover the budget for the construction of a small regional medical center and its operation for a year.

The location of such clinics was inaccessible to the common man. For example, one of those advanced centers was located in the Alps in Europe. One could only get to the clinic, located at an altitude of about 2000 meters, only by air by helicopter.

Such centers would employ specialists whose professional level of knowledge reached far beyond any standards. Getting getting the qualifications to work in such a clinic would take at least 20 years. Talented students would be taken notice of at the stage of application to educational institutions. Their academic

success and social activity would be continuously monitored, as well as their approach to study, building relationships with fellow students and teachers. In a word, the employers would assess all the essential conditions for a possibility and expediency of making an offer to a promising student to enter a private club and gain access to a unique chance to work in a clinic that no one knew about and no one had ever heard of. If everything went well for a graduate student, he would be offered a fifteen-year internship in a number of specialized medical institutions located around the world – from South Africa to Japan. Such a unique and holistic experience provided the practical knowledge base required for a distinctive job when a doctor reached a plateau – the phase in a medical career when a person was ready to work with special patients.

A proud and peaceful view of majestic mountain peaks, veiled with sparkling snow, a little prickly sun, piercingly deaf silence and the air that is not to be confused with any other, clean and without a pronounced smell. Such remote places were chosen for the construction of specialized clinics. Nothing should disturb the peace and privacy of patients. No casual tourists would suddenly happen to wander into the protected area, constantly patrolled by private security detachments to guarantee the safety of guests. Not to mention journalists and those looking for fresh tabloids news. Everything ensured complete confidentiality and maximum inaccessibility to make such sites out of reach. The appropriate level of comfort for patients was provided by

several dozens of highly qualified employees. Service staff, administration, cooks and, of course, doctors. Among patients in such clinics, one could see people whose faces were known all over the world. But even with all their power and infinite wealth, these celestials could not provide themselves with what is available to everyone today – confidence in the future.

Reed, a little tired of reading the section on the clinic's information portal – "Stories: how it all started" – put the tablet aside on the seat next to him and leaned back in the chair, relaxing in its cozy embrace. The capsule rustled soundlessly along the highway, cutting through the damp air flowing in the warm rays of the early sun.

"How much has changed since then", Reed remarked into the void, addressing an invisible counterpart. – Today, life expectancy is almost twice that of a limited circle of people who had access to the latest scientific medical developments of the time. But all this, unfortunately, has not yet allowed us to completely eliminate the possibility of errors, inaccuracies in our health programs. Neither, ultimately, of diseases. And for now we're still mortal," Reed looked out of the window and smiled slightly.

"Yes, Reed, you're absolutely right", Al replied with a slightly noticeable soothing note, "but let me remind you of all the big, drastic changes that we have been recording over the past 150 years. Today, humanity has already gone far ahead. As you noted, the key indicator is an unprecedented achievement – the

average life expectancy is twice higher than in the beginning of the 21st century. The modern scientific community provides almost a 100% guarantee of a healthy, long and happy life for every person. What the rich you read about could not have imagined, today determines the future even before conception takes place. A thorough examination of the parents' DNA, the required genome corrections constitute the first and defining stage of the formation of a health program. The analysis of the infinitely complex program of a human life – the genome – is based on fundamentally new computing capabilities, the foundation of which was laid in the middle of the 21st century.

Developers and scientists have achieved almost unlimited scaling of capacity of quantum computing machines, which very quickly led to the absolutely obvious superiority of artificial intelligence over humans on a wide list of activities. The scientific field of research and development of new technologies is a key layer of life activity, and the mental potential of a human being was a defining factor before. But everything changed surprisingly quickly since the middle of the last century. Task assignment and control constitute the main role of a biological individual today.

– Of course, the individual has continued playing and, of course, still plays the main role in creative work and scientific research," AI emphasized politely. "At the same time, people were able to shift most of the functions, some routine and repetitive tasks to machines, which provided a fundamental

acceleration in a lot of research allowing us to reach powerful and efficient levels of results for a number of them. Medicine is the field of research in which the efforts of the PAX have been focused in the first place. The PAX is the name that public choice assigned to a cluster of computing power of quantum computers distributed around the world.

– Yes, but genome corrections ultimately did not rule out errors in the program of life, as you well know, Al.

– You're right, Reed. With all these issues, program errors, work is already underway at the next stage. Working out and developing an individual compensation course is the second key element designed to correct deviations from the system that the program identified throughout an individual's life activity. These deviations cannot be figured out at the initial, starting position, when analyzing the genome. A person's life presents endless changes, variations and choices first made by an individual's parents and surroundings, then personally by the individual. The environment is changing, society is changing, there are global shifts on the planet, in the star system, profound changes are taking place, and so on. All these components have a direct impact on each and everyone. The system is infinitely complex, the number of interconnections is practically infinite, trillions of trillions.

No one, not even the PAX, can take everything into account in the predictive programs of life. Even a 0.01% deviation in the accuracy of the forecast leads to irreversible consequences

over a period of 10 years. Regarding health indicators, regular comprehensive examinations are carried out every 2 years. Resulting from such tests and monitoring is an individually developed unique pharmacological substance designed to make timely corrections to the program of life and health. The PAX calculates all relevant components and conditions related to each patient, comparing primary forecasts with up-to-date data obtained on the basis of a comprehensive examination and analysis. Resulting from the survey is the production of a unique drug, a pill, taking which once a month provides corrections of micro software errors.

– But there are also those who refuse to participate in such a practice. Those who do not want and are not ready to be part of some plan, even though it has been developed in good faith as stated, Reed objected.

«Exactly, Reed. You're right again," Al replied. Such citizens do not want to be part of the Republic either, they often become hermits and freaks. And sometimes they actively oppose society. In their opinion, people give up their freedom and life as payment for the imaginary opportunities provided by modern civilization. They go outside the limits of a modern society. Such divergents claim that their personal freedom, freedom of choice, is worth more than the possibilities of living in an artificially created, computer-programmed reality. These are their fundamental and basic reasons, Reed.

– I don't even know. As for me, these reasons are completely

controversial. No one restricts us in our thoughts, freedoms and actions. By and large, we act as we believe we have to. We say what we think is right. To reject the achievements of science, not to participate in public institutions, to stay away from the latest technological discoveries, not to use what medicine offers for your well-being seems to me simply unreasonable. It's kind of being stupid. Nonsense.

– Reed, 99.99% of the Republic agree with you, – said Al enthusiastically. – We are already approaching our destination. We'll be downtown in less than 2 minutes, Reed.

Al's hologram gradually faded away. Filling the silence, the computer turned on the sound transparency mode, letting the muffled noise of the forest rushing past the capsule window into the cabin. A quiet wind, gently touching treetops, occasional overflowing voices of their permanent residents trilling their claims to the territory, rays of light breaking through the dense green curtain of trees. —Everything here is peaceful,— Reed thought.

The capsule slowed down a little before the next U-turn of the winding mountain serpentine. 1950 meters above the sea level – read the marking on the next road sign.