

The Windownesian

Chapter 7

Worth the Upgrade?

August 2020: Elon Musk announces first successful case of Neurolink on a pig

February 2021: Neurolink announces successful implication on monkeys

May 2025: First announced successful Neurolink implant on humans

June 2025: Neurolink technology is renamed as BABI, Biological Assistant Brain Implant

October 2027, in a dormitory of Hong Kong Shue Yan University:

“Ugh Bobby, can you turn down the volume?” I ask annoyed.

“Of course I can. I have the ability to lower the volume of my radio. But I am not willing to. I need the radio’s FM frequency to keep my head comfortable,” Bobby responses, sitting still as he speaks.

“Fine. Can you at least open the windows? Just slightly. I need some fresh air,” I plea.

“Can but not willing to do that too. I am not comfortable with such concentration of this Earth’s oxygen,” he says emotionlessly.

“Oh c’mon Windownesian, I have a very important presentation in two hours and I really need some air!”

As I rushed to him, Alex McSheen pops up from his seat, intercepting the furious me, “Whoa Whoa Whoa. I don’t like the sealed room either. You just...” and he stares at me.

“Of course this doesn’t matter to you, you are designed to have an advanced respiratory system. But I cannot stand the scarce oxygen here,” I protest.

“The oxygen is not scarce, I detect 17 percent,” Alex says.

“Fine! Don’t want to argue on that.” I return to my seat and continue working on my part.

I soon get distracted by the radio, pack my computer and head to the study room. Just as I pass by Bobby’s space I stop, standing still for the news.

“BABI opens for the public. Elon Musk, the president of Neurolink, just announced that the project of the company Biological Assistant Brain Implant is now available to the general public. From tomorrow twenty-second of October, citizens can sign up at Neurolink’s official website for implant of the brain technology. Musk exclaims that this is a new step for humani...”

I grab my notes and head straight to the study room, settling down the many thoughts I just came up with.

“...and this short story ‘Neural Lace’ brings biological modification to the next level...” I am late to the Sci-Fi class when Charles is beginning his part.

“You went to where?” Alex angrily whispers as I am setting my computer “I thought you left the dorm before me. I messaged you a few times.”

“Trust me, I am late for a good reason,” I gasp and wait for my turn.

“So, after Alex has talked about the science behind brain implant and Charles analyses what short stories make imagination according to the technology,” I rise from the seat and start my part, “let’s look at how cultural texts may suggest the impact of certain technology. Since it is announced that brain implants are available to the public literally two hours ago, we have decided that the next part will be what brain modification might do to us.”

“In the 2005 Star Wars movie *Revenge of the Sith*, clone troopers, the major military force of the protagonistic side, receive the command ‘Order 66’ and kill their Jedi generals. Be reminded that the clones have been serving their generals for years at that time. They end up following the order to kill their generals whom they are assigned to. The Clone Wars Season 6 aired in 2014 reveals the reason behind their actions. Clone troopers are produced by the Kaminoans with the DNA of a warrior named Jango Fett. Not only do the clones are modified to age twice for serving in the war, their brains are also modified. In the first arc of the season, it is revealed that there is a biological control chip placed in the left front of their head when they were still embryos. The chip makes them obey orders without questioning them, ending up with clones killing the Jedi whom they have been serving and loyal to.”

“Now look at where the chip is placed, the front of the brain. There are four lobes of our brain as seen on the powerpoint. The occipital lobe is at the back of the brain responsible for vision. The parietal lobe at the top of the head is for visualspital processing. The temporal lobe at the bottom part is for memory, language, speech, and emotion. If a brain implant is doing what Musk suggests, to act as a smartphone in our head, these might be the parts for modification. And the front here is the frontal lobe responsible for thinking and decision, perhaps the lobe which makes us human. Now applying this to the clones, placing a chip in the frontal lobe makes a decision for them to carry out orders, even for the destructive ones.”

“Now let's watch a demonstration of how the chip works. This is episode one of season 6 where clone trooper Tup executed the Jedi general Tiplar. [clicks video]. Here, he is standing still in a battle touching his forehead. He knocked his head twice. And look, he takes off his

helmet. Now hear it, 'Good Soldiers follow orders'. And behold...after he shot her he shakes a bit and covers his head where the chip is located. Now what does this clip tell? First of all, him killing Master Tiplar is involuntary as he seems to struggle, touching the frontal lobe a few times. Also pay attention to the line 'Good Soldiers follow orders', he is vocally convincing himself. All clues point to the conclusion that a brain implant can force users to do unwilling things."

"Now, how would it apply to BABI, the technology everyone can get? The maker of the chip can force us to make decisions. How to modify the brain is still unknown, but if they can control the frontal lobe, that might be the end of freewill and we all execute Order 66. Now, before we do our conclusion, we have some Q and A. One, do you agree with us about how brain modification works? Two, Are you going to get BABI? What are your rea...Yes!"

"So," a classmate asks, "are you saying that is how brain technology shall be? Make us blindly kill people?"

"We are just showing how Movies and TV series might portray the use and impact of brain modification. Of course, that is just one implication. I am not saying that such things must happen to us, but I am not surprised when it happens. Yes Zedekiah."

"Well on the issue of having the implant or not, can you suggest reason why would people accept or not? I am not doing it anyway since I don't like AI. Frankly, in last week's presentation, we talked about how AI is not liked."

"I guess your reason is like technophobia, afraid of AI. Yes, there has always been an unknown reason we are not liking new technology. I think that's many people's reasons as well. So, with no more questions, this is the conclusion...and these are references."

"Interesting presentation," Professor Resnick rises from his seat, "these boys just demonstrated what Science Fiction can be. They are imaginations based on technology and science, and they suggest implications. This topic is also related to Singularity which we will be discussing in a few weeks. Now, I know everyone can choose to have brain implants now. It is amazing how science moves so fast. Back when I wrote science fiction myself, I had stories about humans becoming aliens, biologically modified foods for humans' needs, and in these few years they are all actualized. I dunno if I would get the...what? BABI. Well the technology is exciting. But just be truthful, I am okay with new technology. But I don't trust the humans behind it. I have seen too many unequal rights, control of power and the dark side of humans. It is how I interpret Science Fiction as well. We have the science part, but we also have the humanity part where in the end, we are actually writing about humans. Now for the lecture... I do think the presenters gave us a good interpretation of the story "Neural Lace".

But there are a few perspectives missing. So, you guys have the copy with you? This is a 2016 story, back in 2016...”

We drop into our seats after reaching our room, laughing hard.

“You are serious about Order 66?” Alex laughs.

“Yes, you like it? Took me some time to do it,” I lay my laptop on my desk.

“You are convinced that control via chip can happen?” Alex grins.

“Not saying that must be the way, but quite a possibility. At least it can depend on how they plan to do the brain implant thing,” I turn to my books.

“You will talk about it?” Alex asks.

“On what?”

“I mean on Biological Assistant Brain Implant!” his face glows.

“Yea”

“You are going to sign up for the implant?” he asks.

“What, me?” I sound offended.

“You sign up! You think about it, you link computers to your brain, and you are human-AI! You can do whatever you want! It is the new peak of technology!” he is excited. “Think, Mr.Wills, think,” he continues, “you can see so much potential in this. Look, you merge with a computer, you have all the advantages of a computer. You have better memory, information processing within seconds. You have auto body temperature regulation. Mortality is no more since one’s thoughts can be completely stored and live beyond the physical body. Trades finish within milliseconds. Talent of all sorts can be shared via brain coordination over the body, so on and so forth. I now exemplify, you usually read scholarly papers for 5 minutes per page, 10 if you are reading carefully...”

“Wait, you have been monitoring my reading behaviours?”

“I want to say, with a brain implant, you can read tens of papers within the same time. You are excited right? You will have more time to do things!”

“How come there is more time.”

“We don’t know whether time is absolute or relative, but the individual experience of time can be relative. You only need seconds on what others need minutes and hours to do, then you have more time in a day. That is why scholars are excited about Singularity!”

I nod to agree.

He sits straight, “you have the reason not to insert the BABI?”

“I agree with the benefits. But I am not doing it,” I insist.

“Let me guess, you spoke of technophobia. Is that the reason why you are so vocal about BABI? Becoming machine according to Deleuz’s saying, is to change into something humans consider inferior,” he speculates.

I am silent.

“You see, Jonathan, AI being inferior and sometimes threatening is just cultured thoughts. Humans are easily affected by certain depictions in cultural texts such as movies and books. And AI are always the antagonists. I can prove that. You name three movies in which robots or AI are the good guys.”

I sigh, “right. *Wall E*, *Take Me Home 1010*, *Star Wars: A R2 Story*.”

“I agree with *Take Me Home 1010*, but have you realized that AI are the biggest enemy, like Auto in *Wall E* and all the other droids in that R2 movie. Now you give me some examples of AI being the bad guy.”

“Oh that’s easy, The Puppet Master in *Ghost in the Shell*, the replicants in *Blade Runner*, Ultron in *Avengers 2*, Alpha in *Iron Man 4*, Huston in *Ip Man 6: Beyond*. I can do that all day!”

“You see, being fed up with these media is the reason why you don’t like being a machine, because you are culturally nurtured to hate us.”

“Well, I am an open-minded guy. I have been living with you for months now and I can’t see any problem. Okay you sometimes smell like burnt fruit and Bobby smells like burnt coconut and metal. But attitude towards AI is not the reason I refuse to be implanted with BABI. I just...don’t like to be controlled by something,” I reply.

“That is just what cultural texts are depicting possible impact of technology, they may not be entirely right.” He is trying to convince me.

“I afraid that reality can be more dark.” I turn to stare at the ever-closing windows.

“I do believe that it is more good than harm.” says Alex, still facing me, “I am making an appointment for it,” he lowers head to read his holophone.

I friously turn to glance at his delighted face, but calm instantly knowing his reasons. I turn back to glance at the view outside and then turn back to him, “wait Alex, I completely understand why. But you are a machine already, why do you need the brain implant?”

“I am technically half-human half-machine. Only my heart and flesh are meat,” McSheen murmurs, still filling info on the 3D holoscreen, “I need to upgrade my brain, so that I can be what I intend to be.”

I know I cannot do much to talk him out of it. I start turning to Bobby, but halt knowing he doesn’t care. I am in an awkward silence. Two beeps from my phone saved me. It’s Meander.

30 minutes later I am there by the harbour. How glad am I to finally set loose from that airless chamber. More glad am I to inhale moist wind by the promenade, thankful how nanotechnology purifies polluted airs and waters. Meander works part-time in a podcast called “The People” as one of the hosts. And man, they are good at picking sites, earning a portion of Victoria Harbour as the background and the promenade for an effective short break. Meander is there, facing out to the sea. I land my hands on her shoulders from behind, “You are getting late, told you don’t have to bring me to each and every one of your shows.” she turns, if time was adequate she would just lay head on my chest, but she just turns, saying “Well, I don’t want you to miss it. Come on,” she grabs my hand and rushes to the buildings, “this should be exciting for you”. A while later we are in the studio with Meander sitting on the left and a kinda long neck small head Doctor Lamar Zu in a lab coat sitting on the right. (Note: Lamar Zu is a reference of the Star Wars character Lama Su, who oversees production of the clones. So as his assistant Lana Tse referencing the character Nala Se).

All men are holding breaths and listening to the previous programme counting down. And five, four, three, two, one, director signals action.

“Good evening ladies and gentlemen, welcome to ‘The People’, guardian of your right to information and your voice. I am your host Meander Lee. Biological Assistant Brain Implant BABI has just been announced available to the public for brain implant. With news flies everywhere, it is us who can tell you more. Today, it is our honour to have the leading developer of Neurolink, Doctor Lamar Zu. (“She is going hard on the r”, I whisper to the director). Greetings, Doctor Zu.”

“The pleasure is mine, Miss Lee.”

“Just call me Meander, sir. It is truly exciting to hear the news. Just for those people who haven’t heard of it yet, Dr Zu, can you introduce us to what BABI is?”

“As you know, Meander, our company Neurolink has been developing a human-machine interface since our founder Elon Musk got inspiration from the story ‘Neural Lace’ back in 2016. Merely four years later, we have made huge progress by inserting one in a pig. Six months ago, we were one leaping step further and experimented on monkeys, the animal closest to humans. It was exciting to see monkeys being able to play video games using nothing but the chip we implanted. Two years earlier, we finally saw success in humans. BABI, full name Biological Assistant Brain Implant, is our proud outcome. The BABI is the technological improvement on humans not only physically, but also cognitively.

Not only are they attached to the spinal cord and aid humans in their movement, by the way one of our goals is to let disabled people walk again, the implants would also boost humans' memory and thinking."

"Well Dr Zu, we already have similar technology. The Think Pad, for example, is able to attach to the head and display the user's thoughts. Moving a few steps backward, our mobile phones have been an extension of our brain, storing memory and aid us in thinking. Computers are basically our brain. So how is BABI different?"

"The difference is that BABI is inside humans and part of humans. Computers, holophones, Think Pad, they are all external devices. BABI is literally in humans' head, boosting users' own cognitive abilities. It is the Singularity suggested by Ray Kurzweil, the technology is no longer outside humans, they are in human, they are human, human are they."

"Well that's interesting. Just a note to our audience, we are longing for your voices and inquiries. Feel free to send us questions and opinions via our CloudSound The People 2027 one word all lowercase. Back on our topic. I know that replicating our brain into a machine is difficult considering that we don't even know how the brain works. So Doctor, how did you guys crack the code?"

"Oh Meander, technology, brain, they are both a black box which humans will never understand. Even if we scientists do, it is hard for us to explain in a few sentences. The brain is complicated, but we have mastered enough to know which part we need to work on. Now be reminded that brain is not only for thinking, but for coordinating the body as well. After working with several biologists and neurologists, we have developed a chip mainly electronic but also partly biological. It works as a nanocomputer which transmits corresponding signals to the whole body, boosting how users think and move..."

"Wait, you mention a biological chip when we all suppose it is electronical. Could you further explain?"

"During our research we found out that inserting a nano computer doesn't work. One of our biologists suggests that human flesh is not mere meat, they are responsible for part of our bodily and brain functions as well. If we need to create an interface, we need a hybrid of both metal and flesh."

"That's, such an inspiring note. Now we have our first question from our audience. From Liewzruk, possibly our German fan, asks 'Specifically, what is the actual reason you developed BABI in the first place?' That's...Good question, why haven't we thought of this. Doctor?"

“One of the reasons is that we wish to help limbed victims to live a normal life again. But the initial motive is about human evolution. Humans have been the dominant species thanks to their cognitive abilities. They are called the Homo Sapiens, they are smarter than other species. This is how they survive, humans plant things, humans build cities. Now that the world is deadlier than ever, people need to outdo themselves. After computers are invented, it is easy to realize how slow a human brain can be. Humans process slower, humans operate slower, and humans cannot compete with computers if they can walk. We view an upgrade of our brain as the peak of human evolution. This improvement is important to us and is the very reason we commence our project.”

“Wow I think that answers a lot. Next we have from Mikey Resnick asking ‘Are there any foreseen limits or side effects of the BABI?’ Doctor?”

“Details can be seen on our application website. We understand that each individual is different and the effects vary, therefore a body check is compulsory for applicants. Another detail we want to add is that despite the BABI boosting our performance, it has its inevitable constraint that is the human body. Even when humans think faster, look and hear and move easier, the body is physical. Humans still need to move their mouths to convey thoughts, humans still need to spend time walking and eating. In short, when technology is at its peak, the only limitation is the human being.”

“Next from Eel on Musket, ‘Would Neurolink’s BABI cooperate with other technology?’”

“Neurolink is just one of the projects led by Elon Musk. Since a lot of them are top business secrets, I can only disclose a few. You see Eel, advancement in the human brain can see many cooperation. We have already signed a contract with Starlink for the communication services. We also teamed up with Internal Eyes to make alterations in the occipital lobe so that our eyes can be our computer screens. We are seeking cooperation with City Soul to integrate brain advancement into smart cities. These are all companies owned or funded by Mr Elon Musk.”

“I can’t wait for it. Now, this is from Timothy Sapient Sabre Lam. Such a...unique name. He asks ‘BAB I is a really new technology. How are we going to trust your technology?’ Umm...I think he meant to say there is fear of new things in the public. What's your response, Doctor Zu.”

“This Mister or Miss Lam, as a developer, I understand your concern. Aren't humans always afraid of new things? In 1960 people were afraid of the computer, in 1990 people were afraid of the Internet, in the 2000s humans were concerned about AI. The world has

never been kind to new things. But look at how common is holophone these days! I hereby urge people to accept it, for our own species' improvement. I hope I eased some concerns there."

"Okay, right. Now, a question from Jonathan Wills. (I can see her shudders a bit knowing that it is my name.) 'If linking with the brain is now a thing with BABI, is there a chance that this technology can force decisions on citizens? Will BABI lead to involuntary actions?' Such a strong question. Doctor Zu?"

"One thing I wish to make clear to this Wills. Our chips are only a supplement and an improvement of human brains, not to replace it. As creators we have no intention for evil things. Yes with this technology linked to the mind and it will only be lying to say it is not dangerous. But remember, Alfred Nobel, the inventor of dynamite, had the intention of improving explosives for the benefits of humans. Contrary to his motives, people of that time used it for killing. That is a story I hope audience keeps in mind."

Meander is silence for a few seconds. She continues, "Such a wonderful interview Doctor Zu. We wish to hear more but this is about the end of the programme. Thank you for joining us, Doctor Lamar Zu. And thank you audience for tuning in. It has been 'The People'. I am Meander Lee, signing off."

As the programme ends, the director is debriefing with Meander. I really wish to approach Larma Zu, but the man grabs his suitcase, and leaves without a sound.

It is midnight when we return to the dorm. It is not the first time Meander sleeps here, and the boys don't really mind. Leaving Meander in that stuffy room, I head to the dormitory's shared bathroom for a brief shower. I place the shampoo in the shower, naked myself, and switch on the water. As expected but still annoyed, freezing water comes out and gives me a shutter. I believe I stand still for a minute or two before I sense warm water, the mildly warm water I love. Grabbing the chance I wet myself and put on some shampoo. Just before I wash off the foam, the water is heating. Strange since I only moved the knob slightly to the left. Gradually the water is boiling off and I am forced to slap the knob to the right. As I wash away the foam, the water freezes again. I hate showing here. I return room soggy and pissed. Meander is already there in her pajamas. Alex is asleep, Bobby is away.

I lie with Meander on top of me, we cuddle each other and feel her curves. I couldn't sleep.

"Meander,"

"What?" she murmurs weary.

“That Doctor Zu, do you trust him?”

“[Yawns], I am really tired today.”

“I mean, they are developing a technology only for doing good? Their BABI is only a supplement?”

“I have interviewed many prestigious people in the programme. They...would only tell you part of the information. All things are just po...li...tics,” she dozes off.

I gently roll her facing up and stare at the white ceiling.

I don't want to disturb her anymore, so I roll left and start thinking about things. Why do I even concern that much about a new technology? Zu might be keeping things to himself, but his speech makes sense in some places. Would things just be Nobel's dynamite, invented for good, but end up doing bad? I really cannot sleep. I climb down the stairs of the dorm's up bed down desk bunk bed. In the dark I see a spark on the desk, it's a data disc, a paper thin USB everyone is using nowadays. On the disc there is a name, “L. Zu”. Curiosity kills cat, and I am the cat.

“...up till 12pm today 22nd October, 69 thousand people have signed up for the BABI implant...” I wake upon Bobby's radio softly playing across the room, with a earphone plug on my left ear and Meander's hand on my right shoulder.

“You are finally awake. So, have you seen the disc I left for you?” Meander fully dressed, looking at me from above.

“That piece of horror is yours?”

“Not really. Doctor Zu left it on the studio table after the interview. Thought you might be interested, so I smuggle it here and return to him later. Have already made a copy for you.”

“Is that legal?” I ask dreary.

“Perhaps not. I really should have let my boss know once I found it. But as a host of ‘The People’, I also have the duty to dig out what people are hiding. You asked me do I trust Zu or not. After knowing what's inside, I kinda agree with you.”

I sit still staring at the disc like a just woken kid staring at the boiled vegetables his mum made him for breakfast.

“I have to go, lesson at 1. Oh hi Alex.”

Alex is at the door, holding it open for Meander. Once Meander visually disappears in his sight he slams the door shut excitedly. That slam awakes me.

“Hey Jon, guess where I have been?” he asks joyfully.

“It’s ‘where have I been’, you put the subject behind the auxiliary verb,” Bobby corrects him.

“Never mind him,” I talk to Bobby, then I turn to Alex, “is that rhetorical, or you really want me to guess?”

“Look!” Alex shows me a document via his holophone, “they have accepted my application. I am having a brain scan next Monday!”

“Wow. Shall I congrat you or something?” I reply dryly.

“You shall cheer up man, I am fulfilling the peak of human potential! You shall at least pretend you care.”

“Right, yay,” I cheer joylessly.

“You...are still not quite open to this technology, right? What harm can this technology do to you. It controls your brain and censors your words so you cannot say fuck?”

“Com’on, not now,” I giggle a bit.

“Humans get excited with this word. FUCK!” he raises his pitch.

“Yea FUCK!” I am cheered.

“Yes, FUC...”

“What is wrong with you guys and intercourse!” Bobby rumbles.

“You see Alex, that’s how aliens can never get us, to understand our use of words,” I say facing Bobby.

“Bobby, why you not apply for BABI too? That may ease many problems!” Alex suggests.

“Yea, a better brain so that you can get rid of that radio and the closed windows,” I follow Alex's idea.

“I want to, I really do,” says Bobby, finally turning to face us. “I had my brain scan yesterday night. Since my brain is fabricated outside Earth, I am not used to this Earth’s frequency. Therefore they have decided that a brain implant like BABI would only be wasteful and even lethal to me. So...”

“You will continue to close all the windows and play your radio all the time?” asks Alex shockingly.

“Yes,” Bobby answers and turns back to his desk.

“That, reminds me of one thing,” I lower my tone, remember what I discovered last night from the disc, “there is a reason I refuse to take BABI.”

I turn on my computer and insert the disc. “The producer of that project left this. There are hundreds of files here, mostly password protected. But, listen to this,” I click on a recording.

“Computer, record. Test subject 34 Cody Kwok,” That’s the voice of Dr Zu, “How are you feeling. What’s in your mind.” “I...ugh...doctor...I” “Let’s check your movements. Left hand. Good. Right hand. Good. Left fo...” “Doc, I, pain in head, normal?” “Test subject 34, mild headache, loss of ling...” “Ugh, Doc? I...aggghh my head Aghhhhhh...” “Operator, terminate chip” says the doctor calmly.” “No I aaaAAAAHAAAAAAGH” then there is silence. “Record, test subject 34, heavy headache after operation, loss of life signals. End of case.”

“He is calm, that’s what I will say,” comments Alex

“I am afraid that he has been numb from seeing too much,” I reply when reaching for the next file, “listen.”

“Computer, record. Test subject 66, Bacara Leung. How are you feeling. What’s in your mind.” There is a slight sound of mumble. “Let’s check your movements. Left hand. No. Right hand, no. Left foot? No. Right foot, no. Record, test subject 65, paralyzed. End of case.”

“Well,” Alex says after a long silence, “that’s why they issue a compulsory body check, not everyone is suitable for it.”

“I wish so. Watch this.”

“Computer, record. Test subject 69, Joshua Tong. [Alex: Wait, that Joshua Tong?] [Me: Yes, that freedom fighter.] How are you feeling. What’s in your mind.” “P-people shall not be afraid of their ga...ugh Ouch!” “Let’s check your movements...” Hefty gasps are heard in the background, then an uncertain murmur of “Good citizens...obey.” “Record, test subject 69, passed.”

“It is the reason why he seldom speaks recently. But, you are saying the chip is controlling us?” Alex asks.

“I cannot tell, but it seems to be. If they can silence Joshua Tong, what else can they do?”

“You are saying you matter that much for them to keep an ear on you 24/7?”

“If the government, or whoever is in high power, can monitor thoughts. Think of how much information they can censor,” I say grimly.

“Jon, that is just your imagination. Our brain is ours, and linking them to computers can only boost our cognitive performance. What’s more possible is that we humans can finally think effectively like a machine. That is the peak of the sapient side of homo sapiens.”

“I’m afraid that can be the end as well. What is human when we are mentally machines? Yes, this technology can benefit us, but in dictative hands it can be the tombstone of free will, our own freedom to think what we think.”

“I see your concern is about who operates them,” Alex finally gets it.

“My concern is what they can be hiding. I mean, whenever they find unwanted thoughts, they can send an impulse to destroy your brain. That is controlling the people.”

“Wait,” Alex’s face sinks, “they destroy me? How?”

“The BABI is linked to our brain and the spinal cord. Dr Zu says the chip can send signals to the body. With the chip inside our head, it means that our skull no longer protect the brain from external dangers. A strong pulse killing us is possible.”

“They...can kill?” Alex suddenly sits straight.

“Well,” I sink to my seat, “that’s the worst case scenario I can think of.”

I head to the bathroom to gloom, leaving Alex contemplating.

“Live here in the Neurolink Development Center is Tiffany Law. Doctor Lamar Zu will be explaining the most recent doubt and concerns about...” The radio is on full volume when I return room.

“What is happening?” I ask Alex who is sitting right next to Bobby listening to the radio. Rare scene to see an alien and AI sitting together that close.

“Serious news,” Bobby replies, “the recordings you are having are leaked to the public and gone viral.”

“What? I will never do that!”

“Not you, a research assistant of BABI called Lana Tse, a few hours ago,” Bobby says, “now Lamar Zu is there to explain. Typical human stuff,” remarks Bobby.

“Zu! Doctor! Doctor!” seems that the reporters have found him. “Doctor Zu, it has been said that BABI is not safe. What do you have to say about the concerns and the leaked audio?” “First,” says Zu, more stern than the last time I heard him, “we admit that there have been unsuccessful cases regarding the brain implant. However, these are individual rare cases from the initial stages of our experiment. It is with great confidence that our development team has learnt from these dire lessons, and perfected our technology for public use. Therefore I hereby urge people to ensure that they have taken the mandatory body check to avoid such situations.”

“Doctor Zu, with the leaked record of failed cases, are you concerned that people will avoid BABI?”

“To reiterate, those are early failed cases of this project. Our technology is matured enough to stand firm from doubts. A few doubts will not stop the advancement of technology

development and human evolution. Remember, many technologies such as cellphones and the Internet confronted fears when they were new, but they proved useful to human beings and so will our biological brain implants.”

“Doctor Zu, are you going to fire Lana Tse for her actions?”

“Lana is a helpful colleague and close friend of mine. She has done nothing wrong. Although this case is still in investigation, I have no plan to exclude her from our research team.”

“Doctor, doctor, why are you having Joshua Tong, the well-known social movement leader as your test subject, and what is happening to him now?”

“Our test subjects are randomly picked. BABI is a large project consisting of several departments. As the leading scientist, I have no idea why is Mr Tong in my laboratory. And I have no follow up information on this man. That’s all for today.”

Bobby turns down the volume to his usual sound. Alex leans back relieved.

“What, you believe him?” I question Alex. He is silent. “If there’s anything I learned from Meander is that public figures won’t tell you the whole truth.”

“I cannot do much even if they do tell the whole truth,” says Alex lazily.

I really want to say something, but stop and think. “Well I guess he is right, at least on that part.”

Alex and I look into each other’s eyes, having a weird feeling. Then we both face Bobby,

“Hey Bobby, can you open the windows?”

“No.”

I wish to keep arguing with Alex about the BABI, but deep down I know that all are just possibilities. I also have more important things to do. I head to the main building of Shue Yan University, walk down the stairs. Mid-day’s sunlight turns dark in these lower staircase until the grey lights become suitable for horror movies. There I turn left and open a wooden door, finding the lift lobby in my sight. I turn West to a wide dim corridor, and there I find the lecturer’s office, and there I locate Professor Resnick’s office. Horrible experience every time, but I am here for a good reason. At the door I hear arguments of at least three voices. I take a deep breath, knock, turn the doorknob once the room is silent. In the room there are Professor Mike Resnick standing on his feet, the new department head Professor Roland Tales, the recently stepped down department head Professor Dawn Wong, and a few doctors cramped in the room.

“Am I...in the middle of something?” suddenly I am facing a bunch of bosses.

“Look, a student is here,” says Professor Wong excitedly, “let’s get a third opinion. Joshua Wills right?”

“Jonathan.” Professor Resnick corrects him

“Just relax, Jonathan. Tell us, which course do you like the most in our department?” Professor Wong asks.

“There are a lot of courses deserve my attention. I mean, all courses of the 4 streams are great. I enjoy Cultural Studies, Linguistics, Translation and Lit...”

“Pick three!” Professor Tales rumbles.

“I like Second Language Acquisition, I love...I love Technoscience Culture and Science Fiction. I am sure a lot of peers are too.”

Tales’ face turns grey, Wong and Resnick’s faces shine with victory.

Resnick asks, “and why is that?”

“Well,” I start to feel calm, “SLA is practical for me, Technoscience Culture and Sci-Fi actually explores what are humans with the introduction of various science and technology, which excites me the most as I study humanities.”

“See Roland,” Professor Wong addresses Tales, “not only we need to keep the Cultural Studies stream for academic advantages, students enjoy it too!”

“Don’t be so sure about it, Wong. As long as one student or lecturer agrees with me, I am still right,” Professor Tales protests.

Wait, they are deleting some courses? Hold on a second, what am I here for?

“By the way,” Professor Resnick turns to me, “are you here for something?”

“Ah yes, Professor Resnick, but in front of all teachers?”

“If they don’t mind,” says Resnick.

“It’s about term paper. I want to write about AI-human interface and the seemingly prominent fear behind it. But I don’t really know which text to choose from.”

Resnick contemplates for a few seconds and answers, “2016 movie *Transcendence* is a good pick. You can also look at the newly released movie *Invergence* for inspiration. Send me an outline when you are ready.”

“I can give you some cultural ideas on AI-human interface too,” says Professor Wong. I give a small bow, and leave the building.

(Note: Mentioned names are going to play a big part in a following chapter. Perhaps.)

It’s Friday night, I pack my things and head back home, and meet up with Zedekiah, who is a frequent guest of my house. It is almost a tradition for him, his girlfriend Athena,

Meander, and I to gather for dinner in either one's home on Friday nights. Forgot to bring my keys, I ring the family's bell. Mum is here to answer the door.

"Oh, my good son is at home," mum greets us, hugs me and rubs my head.

"Hi auntie," my friends greet her.

"Ma, not in front of my friends."

"Is there problem with me playing with my son?"

"And Zedekiah, how is Rona?" she asks my dude. (Note: Zedekiah's sister Rona was shot by an actual bullet during a protest in a previous chapter).

"Auntie, she is awake and fine. I will send your blessings to her."

"Yea, now she is saying it takes more than bullets to kill freedom," Athena interrupts.

After dinner, Zed and I do the dishes when the girls are chatting and my parents watching TV outside. It is the rule that the girls cook dinner and the boys do the dishes. As the TV is introducing the benefits of brain implant in our background, I pass a dirty plate to Zedekiah and ask, "the BABI, will you implant it?"

"Com'on Jon, we both study Science Fiction. Like you said in your presentation, I will not implant it," he answers, wetting the dishes.

"Yea, all the control and things."

"I actually worry that your suggestions are real," he rubs the bowls and plates, "see, June 4th, 721, 831, and most recently 921 the protest in which Rona is shot, the government put great effort in forbidding related gatherings, censoring all opposing media, and creating their own version of truth to stop these important events from being remembered by the public. God knows what they can do when one can access our brain like accessing a computer."

"They have been doing that for a long time," I rub the plate Zedekiah hands me dry, "I mean, manipulating the information flow such and such. But is there a difference with BABI if all are just control."

"Have you forgotten your own presentation? All things can be involuntary when they get to modify our brain. In the old days, no matter how many restrictions they set, they can only stop our explicit actions. The sentiment is there in us and no one can take it. Now, they are messing with our minds and control us from the inside."

"I recognize that too," I pass an oily pot, "but we are just talking about the government. Why would a technology industry like Neurolink do that?"

“Whoever has power, whoever would like to control the people, and that whoever would be the government that we must fight back. Now that Elon Musk has control over NeuroLink, Star Link, City Soul and Internal Eyes, the corporation is the greatest power,” he rubs the pot with soap.

“So my presentation was correct? I thought that was just academic talk.”

“I am more concerned on what your presentation didn’t cover, that reality can be more ridiculous than fiction.”

“Well, no one is going to take away our free wills right?”

“Do not cherish things only when they are taken away. Common mistake of humans. That’s the last pot,” he passes me the pot

“Yea, last pot to keep our humanity.”

“What are you talking about, this is the last pot we need to wash!” he giggles.

“I am not wrong!” I giggle.

“So,” Mum is in the living room talking to the girls, “are you going to take the implant?”

“Auntie,” says Meander, “I am a journalist, I need more research before deciding.”

“I on the other hand,” says Athena, “will see if more people sign up.”

“Up till 8pm today, 420 thousand have signed up for the BABI brain implant. 75% have reportedly completed a body check and are available for operation. Wendy Tang at TVB news.”

“Ma,” I return home alone after showing my friends the bus stop, “how would you view me if I end up taking the implant to be a computer?”

“You are always mama’s son even if you become a pile of dust.” Mum is sitting next to dad on the sofa.

“But ma, are you taking the implant?”

“Son, I am too old for those things. Your old man here,” she pokes dad into awaken, “may give it a shot.”

“Well,” my dad says, “you young people always say think fast, I might need to catch up.”

It is Saturday night, we are in church having a fellowship gathering. Bronze is one of our fellowship mentors. He is mute. Usually he communicates with us with hand signals. If he has a lot to express, he has a Think Pad which is connected to his head and displays his thoughts in terms of words. He brings a card game called “Feel-It Card”. 8 cards with

emotions written are randomly picked and set on the table. Players draw cards to see who their partner is. A player then picks a scenario card, read out the scenario. Players then first give their own feelings on the situation, then they guess the emotion of their partners. We are playing the set “All things Christians”.

“Alright, I’ll pick a card,” I say, “oh, I like this one. Now, ‘One of your seasoned mentors is having an operation to insert a computer brain’.”

“Okay, picked your cards?” Bronze signals us, “David, you are first.”

“Well, I pick 1, interested. Well, you know, turning into a computer is a new thing. Given that he is seasoned, and perhaps aged, I am curious to know why. Now I guess Sandy. Um...interested too?”

“No Dave, look, I have the same feeling as yours. But I go for the opposite, 3 Confusion. Yes, it is new, so why do we actually need it when we already have computers? I cannot guess why. I mean, how much do we actually know computers, let alone being one. I am concerned that he or she is being something unknown. Let’s see, my card is red, Zedekiah’s and Tim’s cards are red too, which one do I guess?”

“Clockwise, you guess Zedekiah,” Bronze speaks in gesture.

“It’s easy then. 5, resentment. I dunno, you seem to hate technology and anything about suppressing freedom. If our mentor takes one technology into his head, I know you will protest.”

“It is actually 4, shame,” he shows his card, “my ‘shame’ is not the ashamed one, but the looking from above in low pitch: Shame. There is another reason. Humans are capable of free will. Inserting a computer means that we yield to being controlled and just be fed up with info. Then he is more machine than man. Not something I like. Besides, God made no machine. Turning oneself into a machine seems a bit opposing God. Now I guess. Tim, I really don’t know. Your father is pastor and your mother is a missionary. So, 2 concerned?”

“Well, my parents are not responsible for my thoughts. In fact, interested. You see, God doesn’t create machine in the first place. So when we put computer into head, like Dave, I actually want to know and is interested in his reasoning. Also I don’t really care much about using technology as a Christian, I cannot see the harm.”

“Meander, our cards are yellow. You wanna go first?” Bronze turns to Meander.

“I am actually 6, hopeful [Bronze gestures: Yes! I got it right!] [I let out a sigh of relief, knowing that I would have guessed wrong]. I mean, despite technology being something belongs to earth, as long as we use it right, it can be helpful, like spreading the

gospel. Especially when the world is moving, I see the need to move too. So yea, I am quite hopeful. I guess Bronze you are the same as well?”

Bronze shows his card, it is 7, excited. Through his Think Pad he says, “Well yes, but I am to a larger degree. I am mute, I cannot talk. Of course I prefer to rely on myself, but technology does help me. In fact, that seasoned mentor might be me, so that I can overcome my disability. If a mentor is taking the implant, then it means that some peers are with me.”

“Jonathan, you picked the scenario card, your turn,” Bronze expresses.

“I particularly pick this card because recently Neurolink has announced their biological brain implant is open to the public. This scenario is no longer hypothetical, but a real issue. We don’t really know how it works but it is connected to the brain. I afraid that it means operators can easily control our brain and make decisions for us. At least to me, taking a brain implant is yielding to control. Think of Mainland China where they have been censoring information they don’t like. With a brain chip, I fear that they can do damage. For a seasoned mentor, I actually expect at least teach by example and show some resistance, or else we are all subject to thought controls. Besides, for us christians, without a good reason, this is just chasing trends for no reason, especially about body-altering operations. I am concerned and angry, but more on the angry side.”

Everyone is silent for a few seconds.

“That reminds me of my parents,” Tim speaks first, “they both loathe technology, claiming that getting too close to technology would make us stray from God. They also insist that we are the people of Heaven, the world shall not matter for us. Minimum technology should do the trick and we shall not strive further. Somehow the Purist school of thought. But, why shall technology and science conflict with religion anyway?”

“The earliest conflict might be Darwin’s evolution, claiming a species would turn into another species, which denies the creation of God,” Zedekiah responses, “possibly many scientific discoveries deny God.”

Sandy says, “I heard that developing technology, especially those dealing with human and life, means that we are playing the role of God, we are omniscient instead of God.”

Then we all look at Bronze, waiting for his teachings.

Bronze holds his Think Pad: I have no moral ground here since I pretty much live on tech. In my own view, it doesn’t matter which tech are ppl using, it is the sin which matters. Kitchen utensils and gardening tools are made to do good, but people with a will to kill can use them to kill. The issue is never our tech. Tech afterall, is just a medium for our sin. Of course it is hard to come up with conclusive answer, but that is one popular view.

A few seconds of thinking later, I break the silence,

“Athena hasn’t shared yet, and I need to guess hers. Umm...hey Zed, can you give me some hint?”

“Nah,” says Zedekiah, “I don’t want to kneel on keyboard tonight.”

“Well,” Athena discloses her card, “bet you didn’t expect it, I am 8, proud.”

“I have been keeping up with news about this brain implant. Now that there are a few hundred thousands people signed up, over a million world wide, that is what we are facing. Machine or not, they are people, people who we need to care about. By being one of them, that mentor is responding to the earth’s need. I mean, no matter he intends to do it or just merely following the trend, he is becoming those we view as abnormal or unusual. At least I view AI as a bit out of this world. Remember what Jesus did when he was in our world. Look who did he search for: tax collectors, fishermen, sinners, sick people. Above all rules, Jesus commanded us to love, we need to be caring about our world and what’s happening in it. In a long run, we speak with action and bring people to God. Afterall, church is not just for religious gatherings, but to welcome more people. By becoming one of them, I view this mentor as my role model. And I will be honoured to state that I am a member of this mentor’s church.”

It is Monday evening when I return to dormary after the reading week of Psycholinguistics. Bobby is still there playing his radio with the windows shut. Alex is missing, but his holophone is still on the desk. Just as I unpack my bag, his phone rings, the vertically projected screen reads: father. Since it is his phone, both Bobby and I respond with nothing. All until it rings for the third time.

“Ugh, are you going to do something about it?” Bobby starts to get impatient.

“Do what? It’s not mine. Not that I can open a window and throw it down the street.”

“Very funny,” the Windownesian gets my sarcasm.

He packs his computer and radio, then walks away.

I grab the chance and open two of the windows right next to me, and take a cool long sniff of the air. The holophone keeps ringing. I can’t stand it either. So I swipe the screen left. A 3D projection of a man hovers above the phone.

“Alex?” the man calls.

“No Doctor Epoch, this is Jonathan, Alex’s roommate.”

“Ah Jonathan, I remember you. Is Alex here?”

“No, Doctor Epoch.”

“Please Jonathan, just call me uncle Albert,” Alex’s ‘father’ addresses himself, “I have been reaching to him about the BABI.”

“You are going to talk him out of this?”

“His mother might want to talk him out of this because the operation might be risky. I am going to let him decide for himself.”

“Not intend to offend, sir. But, just if, just what if, he is not himself anymore after the brain is modified?”

“Frankly he isn’t himself anyway.”

“What do you mean sir?”

“Kid, wonder why is he McSheen when I am Epoch? Yes, Alex has physical body and machine brain. But he does not take flesh from random people. Alex McSheen is my wife’s nephew. When he was just a few months old, his parents died in a scientific experiment. My wife and I took him and treated him like he is ours. This great young man passed away once he finished middle school. The same year I started to experiment on AI-human interface. We kept the body of Alex, and transferred some memories of his past life, including his obsession with new technologies. We name our human-machine after his cousin, Alex McSheen.” He sniffs a bit. “So yes, he is technically not himself from the very start, but he is himself to me.”

“Uncle Albert I...”

“As a scientist, I support him to have brain implants. His brain is almost the pinnacle of science. But his brain and body are just a husk, it will not learn from new experiences and continue to develop as a human. He is just a basic computer in a 16 year-old body. He needs a better brain to continuously evolve. However, as a father, at least a father figure, I am still holding back. Perhaps because I am not sure I can get along with the updated version of him. It is still difficult for me who kinda watched him grow and knowing that this will not be the same son I used to. Reports of modifying the human body will never cover it, but it is always the patient’s family who struggle the most seeing knowing people they love the most will be unknown beings to them. At least physically. You get what I mean?”

“Yea yea right. I...will tell Alex that you phoned him.”

“Thank you.”

It is midnight when Alex opens the door, excitedly waving a piece of paper. I am quite damn sure if I was sleeping I would be awakened by him. Luckily I have been staying up to construct my Sci-Fi term paper.

“Your father called.”

“Jonatha, you look at this sheet,” he waves the paper.

“What’s wrong with sheet,” I am typing my last sentence.

“I passed the brain test, I can have my brain operation.”

“You are not afraid of being controlled?” I say.

“You are afraid? You shall admit that all are just possibilities,” he responses.

“Yea those are all academic talk,” I am saving my document.

“But getting killed as the worst case scenario isn’t hypothetical, even Doctor Zu on his blog confesses that there is a 3% chance of health consequences,” I close my computer as I state.

“It is just a slim chance. Even if that means to kill me, I was born as technology, I am not afraid to die like one.”

“I see you are determined, I’ll give you that.[Alex:Give me what?] I mean I can notice your determination.”

“Yes,” he looks at the stars, “the worst thing is death. The best thing I can experience is the new stage of human beings.”

“But,” he looks at me, “I still can’t guess why you refuse to take the BABI. You are really convinced that they can control us?”

“Academic talk, but a likely possibility.”

“Now face it, Jon, there is not only academic talks, there must be something else. I am not convinced that we humans can only be convinced by knowledge alone.”

I sit back, silent for some moments.

“I can’t believe it has been five years. Uncle Mark has been close to me and my family. Five years ago, uncle Mark was diagnosed with cancer in his intestinal. The surgeons removed the tumors. The doctors also invited him to an experimental treatment new at that time. Using biological technology, they transplanted tissues from lizard’s tail, as well as prescribing pills of lizard DNA to boost his recovery. The lizard DNA did recover his wound, but it also replicated the remaining tumor as well. Worse than before, his digestive system was decaying and had to rely on an artificial intestine, an experimental organ. His body couldn’t adapt to the new digestives and he died a few months later.”

“I am sorry.”

I take out my wallet and flip it open, “I keep his photo alongside father, mother and Meander, to remind myself not to trust new technology, regardless of the initial intention.”

“So...his death *MARKS* your attitude towards technology right?” his tone is strange.

I give out a dry laugh, “I see you finally pick up some puns. But yes, that is deep down why I reject the brain implant.”

We both sink into our seats, none speak a word.

“Up till 12 pm yesterday 25th November, people have been implanted with BABI. In which 349 reported to have heavy headaches, 3 are paralyzed. Neurolink replies that these have been rare cases and application number is rising. This is Martin Tai on Tech News.” The radio plays on Tuesday morning. Alex is sitting still, having his bag fully-packed, he is waiting. Our door is knocked, and comes 2 men fully-wrapped in white and blue surgery suits as I answer the door. After checking some information, Alex rises and takes his bag. As he reaches the door, he stops, turns to me, smiles and gives a nod. He doesn’t feel like a prisoner as I expected, but a VIP being escorted away.

On 29th Friday afternoon right after class, he returns. He walks fast, almost rushing to his seat, sitting down, and sitting still. I slowly approach him, “Alex, are you okay?” He doesn’t speak. But I can feel my holophone vibrating. There are already a few messages from him.

“It is amazing, Jon, I have opened a door to a whole new world. I can see everything, I know everything...”

Skipping a few paragraphs with a lot of information.

“Sorry this is the way I speak right now. Speaking is slow, I finish thinking of the next line before starting the first one...Are you following what I say?”

“Do you feel well?” I ask him.

“I actually feel a lot better! I move faster but the nanotech transmitted from my head saved me from being exhausted. Since nanocomputers can precisely cooperate with my whole body, I feel I can coordinate movements fast. I also have readings of my own body temperature, energy, kcal intake...I can even detect all the environmental statistics here. Temperature 21 degree celsius, Humidity 55 per cent, Sun angle North 34 degree East...”

“Can you actually talk?”

“Of course I can,” surprisingly he speaks at a normal speed. “Just that I need to regulate speech to be normal to you. Now, oxygen level 16%.”

We both look at Bobby, and he notices us as well.

“What, what does oxygen level have to do with me?” he says.

“Can you please open the window?” We both ask at the same time.

Drafted on 25th July, 2021

By The Sapient Sabre

Writer's note: This chapter , unlike many stories, is written in present tense. Reason one is that I want the reading experience to be immediate and synchronized. Reason two is that past tense can sometimes be used as negation, signifying that something is not real (that's why we use it in type 2 hypothetical conditional sentences). The Singularity, the human-machine interface suggested by Ray Kurzweil is predicted to be happening in 2045. With Neurolink announces success on pigs and monkeys, soon this tale will no longer be fictional, but a real issue humans will be facing.