

The Windownesian

Chapter 11

Becoming McSheen

77 A.D.: First recorded prosthetic hand by Roman scholar Pliny the Elder.

1579: Ambroise Paré invented both upper-limb and lower-limb prostheses.

1954: The first digitally operated and programmable robot named the Unimate was invented by George Devol.

1972: Waseda University completed the world's first full-scale humanoid intelligent robot.

2020: Elon Musk announced the first successful case of Neurolink interfacing electronic chips with biological brains.

July 2027: Doctor Albert Epoch created the first AI-human interface, naming it Living AI.

December 2027: Jonathan Wills got crushed by a car, shattered his left arm.

Late January 2028:

I stand in the midst of a coastline. Is this a dream? I pinch myself, it doesn't hurt. It is a dream. I am on a higher altitude, glancing over a plain of sand at a lower altitude, dark grey sand, like the ones I am standing on. Further is the boundless ocean. Beneath the far sand, there are gigantic objects, as large as a building or something. Those are plastic toys I used to play with when I was a kid. I can see a comically huge pink piggy bank on the left, a white toy car behind it. I can see superhero figurines. I can see a brown music box, and many shapes I can't recognize. These giants all lie by the coast like whale corpses scattering along the shore. My father from my left and afar summons me. I start walking to the source of sound. I feel light, I feel short, I am a three-year-old kid. I keep advancing with my pity little legs but they cannot carry me anywhere. Suddenly there is a chain of BANG!

I am awake, unintentionally touching my broken left arm. The bang is real. It is red firecrackers right outside my window, from my downstairs neighbour Ka Ho and his family. I look down from the window and see Ka Ho waving,

“Oh morning Zhuang Man! Happy Chinese New Year!”

I forgot to tell you, it is the 26th, first day of the Chinese New Year, 7 am.

“Happy New Year Ka Ho!” I shout down, loud but wearily.

Forced by ma and ba, I leave my bed and groom myself. Since my left arm is completely straightened, I find putting on my red polo shirt extremely difficult. Took me few attempts to find the right angle. And then my jeans, I pull out a drawer and fetch the best-looking one. I throw it to the floor, squeeze my right foot in and pull the jean with my

right hand. Then the left foot. I squat down and tilt my body to let my right hand reach my left side. Bit by bit I pull up the jeans. Finally, I wrap my left arm with bandages with the help of my teeth. Even if you have done this several ten times by now, it is still a pain in the Aristotle. The doorbell rings. I find Ka Ho and his parents at the door with Ka Ho at the front.

“Kung Hei Fat Choi Zhuang Man,” he folds his hands to greet me in a Chinese Manner.

I cannot gong shou, cannot join my hands with right hand wrapping the left fist to greet him back. I meddle with my hands for several seconds, in the end I just straighten my right palm like a ninja,

“Oh Happy New Year!”

And I open the door to let them in.

“I forgot to ask you the first time around Zhuang Man,” says auntie after greeting my parents, “what happened to your arm?”

“Oh this?” I lift my left arm, “just some car accident. No big deal.”

“Must hurt a lot,” exclaims Ka Ho’s father, “get well soon.”

“Frankly uncle, I can’t feel anything. It is completely shattered. Completely.”

“Is that why you didn’t sleep well? You have deep panda eyes,” auntie observes.

“Nah auntie, it’s just the fireworks and firecrackers.”

“Oh did they bother you?” Ka Ho asks unshelling some seeds.

“Legally it is not allowed. But hey, it’s festival!” I exclaim when trying to crack a melon seed, “it should be this way.”

A few conventional chats later they leave to visit their father’s family.

At noon, Meander and Alex visit. My parents answer the door together when I am brewing some tea in the kitchen.

“Oh hi,” Meander sees the red packets my mother is holding, “Auntie Cing Ceon Cheng Zyu, Sum Soeng Shi Sheng. Uncle Shan Zhuang Lik Kin, Wan Shi Sheng Yi!”

“Hey, how about me?” I shout as my parents are handing red packets and blessings.

“Oh Jonathan. Fai Gou zheng Dai!”

“Dai your head. Rose tea?” I hand her a cup with my right hand.

“Oh thanks Jon.”

“Alex, where is Uncle Albert?” I ask the AI.

“Oh father? He is busy working on several projects. Umm...” Alex is stepping in the door, “what shall I say...Kung Hei Fat Choy?”

“You can wish us healthy and wealthy,” my father reminds him.

“Oh sure! Wish you healthy and wealthy Uncle, and Auntie, wish you beauty!” He then proceeds to check the red packets once he receives them.

“Umm...Alex...” I address him.

“Why is there only fifty dollars? Don’t be mistaken madam, I am not complaining, I’m just curious.”

“It is my family’s rule not to unseal the red packets right in front of people,” I explain, “well besides, red packets are just a custom of the festival. Amount of cash is just personal preference.”

“Oh I am really sorry. I haven’t had Chinese New Year for several years. I was frozen since like 2020,” he says.

“Son,” my mother addresses me, “what does your friend mean?”

“Ma, it’s complicated.”

“Don’t worry Jon, you have plenty of time to tell,” says Meander, “now, where is your kitchen?”

“Oh Meander I can handle it. The kitchen is MY territory. Why don’t you have a chat with ma and ba, they miss you.”

“You sure you can handle?” Meander looks at my wrapped arm.

“How hard can it be?” I say.

Brewing tea is just the easy part. I move on with the rice cake. Chinese New Year Cakes are not your average cakes made out of flour and butter. I don’t know what they are made of but its texture is solid when uncooked. It is sweet, perhaps made of some sugary plants. We usually buy the whole thing, slice it into pieces, wrap in egg and fry it. I soon realize, easier said than done. Since I cannot spare a hand to press the rice cake when slicing it, the pieces become laughably thick. I then whisk the eggs, but it is difficult to crack some with just one hand. Then the frying. All I need is a pair of wooden chopsticks. But the pan starts to be hard to handle and many times I spill oil on myself or rice cakes outside the pan. I still managed to fry a batch, but ugly and slightly burnt. I walk out of the kitchen pissed. Meander offers to take my place and leave me in the living room chatting. I grab a pistachio, one of my most favourite snacks. Unable to use my left hand, I stable the nut on the table, and attempt to peel the upper shell with my fingernails. Eventually, I break my nails too and turn to some user-friendly snacks.

“Phew, that was quite a mess,” I collapse into the sofa. Alex is appreciating my collection of toys while chatting with my father. He notices me and sits beside me.

“Haven’t seen you so distressed,” he comments, “not even exam eve.”

“You have no idea,” I respond.

“Is it because I never do things with just an arm?” he suggests.

“Pretty close,” I say.

“Jonathan, I still don’t understand. Why don’t you just get a prosthetic arm?” he asks.

“I think I have talked about it when I explain the BABI,” I answer.

“Mark passing away because of body alteration does cast an impact on Zhuang Man for some while,” my mother explains.

(details please see Chapter 7 “Worth the Upgrade?”)

“No offence, but that broken arm won’t get you anywhere either,” comments Alex, “if just talking about taking a brain implant, I get it, especially when there is no actual need for it. But Jonathan, hear me out, this is not about taking upgrade when your body is intact. This is getting treatment when your body is reluctantly damaged. We are not on the topic of taking robotic implant or not, it is about cure, it is common sense!”

“They are still robotic implants nonetheless. I’d rather be an incomplete human than a somewhat robot.”

Alex is silent.

“Oh sorry bro, I don’t mean it. You are half-man half-machine alright, but you are not a concern. It’s just, I find it hard to take it when it may happen to me,” I utter.

“So, you mind being a robot,” he suggests.

“Well...”

“You mind having part of your body that is not human and breaks your humanity,” Alex hypothesizes.

“Well...I think humanity is...” I stutter, “Alex, what do you think about humanity?”

“Oh me?” Alex says, “I don’t know everything. I mean, having a computer brain allows me to search a lot of things, but I know a little until I think and feel. Humans are actually the weakest beings. We don’t have claws and sharp teeth. We are doomed to failure when it comes to surviving in the wild. If we hadn’t developed weapons for hunting, farming or industrialization, we would have been extinct. So you tell me, why are we human.”

“Well, we are human because we are...more intelligent. I guess.”

Alex says, “from an intelligence point of view, of course, humans deem ourselves sapient. But human brain is limited in a way that we cannot access and store a large amount

of information, limited in a way machines do better. That's why humans fear AI, fear that AI may take our place," he continues, "we have humanity to define what is human, to convince ourselves that we humans are unique, we are superior. I say, what superiority complex, it is our inferiority complex that urges us to define ourselves."

"You remind me of one thing," I say, "Professor Wong once speaks of a term, saying we are ourselves because there is the other. And there is a definition of one, because there is the other."

"Yes. And in many ways, perhaps, we make humans superior and all the other value less," Alex continues, "you remember once I said the image of evil robots is just the cultural projection of humans, it is just a cultural stigma that mechanical beings are the antagonist in most movies?"

"Yea"

"Ever wonder why?"

"Do tell," I say.

"We take humans as superior, because we survive using the technology we built. we are smarter than most lifeforms and that is why we thrive. Intelligence is what humans think is unique to them. That is until we start to develop computers, we start to reach the Technological Singularity: suddenly there are beings cognitively more capable than us. We feel our place as superior species threatened, so we find differences to make us unique. Heart and complex emotions. Robots, AI, at least in traditional understanding, are heartless. They are cold and calculating. Of which makes them conveniently the justified antagonists and the characters who perform mass murder and mass destruction. Therefore swarms of robots attacking a city become popular among cultural texts. Think about it, Jon, it's actually ironic. In human history, it is always the humans who kill most, where robots are innocent or at most the tools of killing."

"Right," I agree with him.

"I say, robots being emotionless is just a cultural depiction," Alex claims.

"No offence," I say, "but robots are really just programmes, input data and they output relevant data. How do you process emotions?"

"How not!" Alex responds, "that is just traditional AI back in 1990s when computers first popularized. AI is already beyond what we know when technology advances and enables machine learning and higher-level processing. Why can't AI have emotions? How do you process emotions?"

I answer, “I see things that make me happy, so I smile. I see things that are sad or touching, so I have tears.”

“In that way you are just a biological AI,” Alex McSheen says, “relying on inputs and give certain responses.”

“It’s a lot more complicated,” I say.

“Yes, it is complicated,” he says, “but if even you don’t know how emotions work, how confident are you to doubt the emotion of a machine?”

“Then how about you?” my father asks, “Zhuang Man says you are half-human half-machine. Do you know joy, fear, sadness, disgust and anger with your...with the computer brain of yours?”

“Dear Uncle,” Alex says to my father, “science may suggest emotions and all cognitive functions are metabiological reactions between different chemicals. However, there’s a recent trend suggesting that our brain is not the only organ responsible for our emotions. Our stomach, some studies suggest, might share a larger responsibility of what we feel. I might be made AI. But since my touch with a pen, when I first feel the world with the body I have, I am no longer just a technology.”

“That explains why people are angry when they are hungry,” comments my mother.

“Rice cake?” Meander suddenly appears out of the kitchen, “I heard noise, what have I missed?”

“We just had an extraordinary conversation with Zhuang Man’s friend,” my mother says.

“What? Why don’t you invite me as well?” Meander screams.

“Oh I have recorded it in my head. Can give you if you have a USB,” says Alex lifting a pair of chopsticks, “Hmm! These are good! Thanks Meander!”

“Wait son,” mother whispers to me, “your friend can record out of nowhere?”

“Ma, have you even paid attention? He has a computer brain.”

On Friday night we visit Meander’s home for dinner. It is a tradition for Meander, me, my friend Zedekiah and Zedekiah’s girlfriend Athena to have dinner together at one of our families. We ring the bell a few times but there’s no answer.

“Don’t worry,” says Meander, “I have keys.”

As Meander opens the door, we see the living room. Auntie Daisy is in her room working on her programme work. We cannot see Uncle Tony but Meander claims he is off duty and

possibly sleeping. At the dining table a lady wearing a large headphone is typing on a notebook.

“Jarvice!” Meander waves right in front of her. Her sister is back for the holiday.

“Oh sister,” Meander’s elder sister puts down her headphone, “sorry I was too focused.”

“Kung Hei...” Zedekiah folds his hand and greets, but he is slapped by Athena.

“You idiot,” Athena exclaims, “we don’t bless on the third day of the Lunar New Year, it is Chek Hou. Any visit may end up to be a quarrel.”

“Right. How come I forgot,” utters Zedekiah.

“Well that’s because your family argue regardless of the date,” Athena grins.

“Make sense,” says Zedekiah.

“Nah that’s just traditional belief,” I say, “we are modern people. But I do have bad news. We didn’t manage to buy any groceries.”

“There are too many people, too few stores opened,” says Meander, “plus we cannot carry much,” she taps my left arm.

“So we only have these fruits,” says Athena pointing at the bag Zedekiah is holding.

“No worries,” says Jarvice, “ma cooked just before you arrived. Ma?” she shouts to her room.

“Five more minutes,” shouts Auntie Daisy, “and wake your dad for dinner.”

After dinner and washing the dishes, I sit at the table to enjoy some apples. Jarvice is still working on her computer. We chat until there is nothing else to talk about, so we give each other some funny glances, and decide to bother Jarvice

“So sister,” says Meander, “what exactly are you working on?”

“Presentation after the holiday. It is elective, about humanities.”

“Oh really?” Zedekiah and I ask at the same time, that interest us as English majors.

“Which topic is it?” I ask.

“Disability Studies. Still can’t see why is it related to cultural studies,” Jarvice responds.

“Cultural Studies is all about studying humans,” Zedekiah says, “how humans see the difference among humans as well as non-human beings. It is all humans and the otherness. We have men versus feminism, ethnicity, robots, nature and more. Disability is of course related.”

“You know what, back in world war 2,” Athena states, “Hitler claims that only people with blonde hair and blue eyes are the superior breed, and label others as ‘sub-human’. In humanities we always study the inferior, to voice out for them, to do them justice, to reveal their stories and struggles. Disabled people are sometimes considered not entirely human because certain parts are missing. No offence Jonathan. They become a liability and a different kind of human. They are also the exploited or suffered ones. Like limbed in the past were used as jesters in palaces for entertainment. In the past Jon, in the past.”

“How are you planning to do the presentation sis?” Meander asks.

“Well, first go through different medical classifications of disabilities. Then some stories about disabled individuals, and some case studies in the Paralympics.”

“Well this is Cultural Studies,” says Athena, “you need to look for cultural texts to demonstrate your theories, to look for symbols and make connections. Creative texts are actually more preferred as a qualitative research method because they depict difference and exemplifies in detail how life is for certain individuals.”

“You actually reminds me of Darth Vader,” I suggest, “when *Star Wars* first introduces him in *A New Hope*, he is ‘more machine than man’. That easily gives the villain vibe as machines are typically depicted as cold and ready to kill, with no humanity. It is later revealed that his robotic description comes from his duel with his master Obi-Wan Kenobi where he lost all but one arm. Say, that’s the fate of most movie villains, either physically damaged and needs cybernetic implants or mentally disabled, as opposed to many heroes. Now think about it, these depictions are really unfair to the characters who already lost something.” I look at my left arm.

“I will consider that,” says Jarvice when typing things.

“Speaking of which,” Athena says to me, “you really won’t get a prosthetic arm? I mean, Dr Epoch has offered you one.”

“I AM thinking of getting an artificial limb,” I say, “I am...just concerned about something not part of my body becomes part of my body.”

“Jon, I know what you’re thinking,” says Athena, “but I don’t think an artificial arm really concerns that much for yourself as a human. On the contrary, an arm is just a tool, it completes what you currently don’t have. On the academic level sure it does bring a lot of debates. But on a practical level, it won’t hurt as long as you can live well.”

I have a dream again. I am sitting with a bunch of teenagers on a beach, on dark grey sand. In front of me, there is a steep slope of dark grey sand as well, almost a right angle. Below is the lower part of the beach still filled with dark grey sand, then there's the sea with no visible end. I have vague images of playing card games with these peers on some colourful beach benches. An old woman appears next to us. Her hair is dull white. She is wearing a black silk jacket with subtle patterns sewed on it. Below her waist she is all robot. Her thighs are drab vertically concave metal. There is nothing from the knee and below, just some rectangular metal paddle supporting the whole body. It looks painful to walk in those. She carries a very large birthday cake decorated with pink laces, it is for Meander.

"Meander," she summons, "happy birthday dear."

I walk to her and take the cake from her,

"Granny, this is not Meander's bir..."

Before I could finish my sentence, Meander shows up next to me and grips her by the shoulder, "thank you so much grandma!" And they walk away.

"Go Jonny go!" the teens behind me shout.

The cake in my hands disappears without notice, and there are some teens already sliding down the sandy slope. I sit down and move by my butt to the edge of the steep slope, and slide down the dark grey sand. I am stuck in the middle. The sea is suddenly grumpy, waves splash wildly. Blue water with white foam disperses like flower in front of me, and swallows me in its bite.

On Saturday, we have the weekly gathering of the James Fellowship. Tonight, Alex joins us for the first time.

"So, I can't help but see we have a new face here," announces our fellowship leader Sara, "new friend, can you tell us your name?"

"I am Alex McSheen," the AI self-introduces, "Jonathan brought me here. Shall I say something else? I am an English Major at Shue Yan University, final year."

"Alright, how about we all briefly introduce ourselves? I am Sara, the head of this fellowship."

"Hi, I am Peter, studying year 4."

"I am Simone, one of the mentors here."

"I am Sally. I am year 3"

"I am David, I am an insurance broker."

"I am Tim..."

...

"Now," Sara says, "let us use the highest honour of James Fellowship to welcome our friend Alex. On three, one two, three, [clap clap clap], welcome!"

After the fellowship we head for dinner.

"So Alex," says Simone who sits with us, "Jonathan tells us that you are actually an AI. Is it true?"

"Well, my father is Albert Epoch. As far as I know, most of my body is human. But my brain and most of my spinal cord is mechanic."

"So, do robots believe in God?" asks Peter.

"Since I have a computer brain, I am able to search for many information about God. Just, allow me to say this. God is just an ideology of worship. Humans wish for many things, so they tend to search for a powerful being for worship. In fact, all can just be cultured, what a lot of people do and makes us follow."

"You know what? I agree," Tim at the next table says, "really a lot is about religion, many are just practices set by men."

"You mean like an alien death cult?" Alex utters.

"Interesting," exclaims Tim, "tell me more."

"Humans are easily driven by culture and ideologies, versions of stories guiding people to believe in certain ideas and perform certain things," explains Alex, "an alien death cult is a religious group that wants you to believe that one day the aliens will come to Earth and take the members of the cult to a better place. And in order to get there they'll have to commit mass suicide. Now that, God is not actually an Earthling, and you Christians actually believe in God and a better afterlife, you are an alien cult."

"I somehow want to agree with him," says Tim, "God is extra-terrestrial. And we believe that one day Jesus will return and we do have a better place after death. But Alex, I must point out some important differences. One, we don't commit mass suicide, we don't need to. Two, our God is alive and living."

"God eh," Alex mumbles, "you all believe in God. Have you ever seen him before?"

"Don't wish for it," Simone says, "you will die."

"Really? Then how do you confirm he exists? Because you have the Bible?"

"I know you are going to say it is just a book written under specific ideologies. I agree," answers Tim, "and Alex, search it up, it is a really cultured book written under certain ideologies. It is written in Jewish society. In my not-so-humble view, somewhat sexist and

racist. Well, I might explain later. But Alex, we Christians value the Bible so much, not just because of what is written, but it demonstrates the relationship between men and God, through stories, poems, and teachings. The gospel tells us that all men are sinners and Jesus died for our sins so that we can connect to God. Yes, you can claim it as an ideology. But what we value is not only what we know but how is our experience with God. Alex, how much do you know about the world?"

"A lot, quite a lot," Alex responds, "or I can easily search a lot."

"So, Alex," says Tim, "computer knows a lot too! Oh right, you are computer. Will you identify yourself as a human or a machine?"

"I am both," Alex answers.

"I think Tim is trying to ask," says Athena, "is everything knowledge to you, or are you excited about certain things? Alex, remember, you have felt the world like humans do."

"Of course I know what Tim is asking," says Alex, "so I answered both. Yes, I can know a lot of things. But I have a say on what I am opened to, and what excites me."

"So," says Peter, "do you believe in God?"

"Or say," Tim adds, "you know there is God, but what do you have to see or experience in order to believe that God exists?"

"I don't really have an answer," Alex says, "yet. I am still looking for what I don't know I am looking for. Can you tell me your preference?"

"Alex, there is no conclusive answer," says Athena, "but I can give you a few clues of where to see God, just based on my experience alone. First, there shall be a mindset of knowing humans are really limited and there is an ultimate ruler of everything. Second, gain theological knowledge of what God is like. Third, find a community that also believe in God, and support each other. Like us! Fourth, when facing impossible obstacles, trust in God and move on against all odds. The sequence doesn't matter."

Sunday afternoon, I help out Athena and Zedekiah in the Sunshine Daycare Center. It is their part-time job to take care of some children while their parents are attending interest classes. Our job, other than organizing or aiding the weekly events, is to entertain the kids until their parents pick them up. In a corner, two boys are playing with their new toys. Austin is holding a figurine of superhero of some sort. I can't tell who exactly is that, don't know what kids are watching nowadays. Bosco is holding another action figure, a robot character, possibly the boss of that TV series or the movie. Austin rips off an arm of the robot and laughs,

“Ha ha ha ha I just ripped your arms off, you cannot attack me now Doctor Cold Evil!”

Bosco shakes his figurine, expresses, “you fool! I have more than one arm [attaches arm], what can you do?”

“Then I shall shoot your head off!” Austin shouts, imitates the sound of a gun and plucks the head of the robot off, “you cannot think now!”

“Who says my brain has to locate in my head?” screams Bosco, “I am a robot, dumbass, I can still hit you with my head off! Leg sensor on! Enemy detected! Rock-tis-tic Arm Attack!”

Bosco then smashes the robot into the superhero. In response, Austin smashes the hero figure back to the robot. Suddenly the toy smashing turns into a fistfight. Bosco hits Austin’s head and Austin starts crying. Athena hears sound and grabs the younger Austin away, and leaves the older Bosco for Zedekiah to scold.

I am having a dream, that kind of dream again. I stand on dark grey sand. Afar there is the wide beach and the blue sea. In between land and water, there is a man standing. Tall and slightly chubby man dressed in robe radiating white light. He turns to face me and he is...Uncle Mark? Six years ago Uncle Mark suffered from intestinal cancer. After the operation, the doctor prescribed lizard DNA to aid his recovery. It backfired. Yes, the treatment recovered his wound, but it also replicated the remaining tumour. He had to rely on an artificial intestine. Unable to adapt to the new organ, he died several months later.

“Uncle Mark!” I shout from a distance.

He seems to hear me, or he doesn’t. He gives me an ambiguous grin, turns to the sea, and starts walking into the ocean.

“Uncle Mark wait!” I start to chase him with my muscular adult legs.

Further and further he walks. The water covers his feet, his legs, his waist, his chest, his shoulder, and finally his head.

“Uncle Mark! Don’t leave me!”

I keep running. The ground becomes soft, and it becomes wet. Seawater starts intruding to my feet, slowing my pace. I advance step by step, until I too am emerged into the water.

“Umm...hello, is Uncle Albert there?”

“I am.”

“Uncle Albert, it is Jonathan Wills. Do you have a second?”

“Jon! I have been waiting for your call!”

“Yea yea. Uncle Albert, last week at the Science Land you offered me a prosthetic arm. Does the offer still work?”

“Of course it is. Jonathan, would it be convenient for you to drop by my laboratory?”

“You have my arm ready?”

“Of course I have, or else I wouldn’t have invited you would I? When are you free?”

“Will 3 pm do?”

“We will meet at 3 pm then. I will send you the address later. See you later Jonathan.”

We arrive at a university where Uncle Albert comes and greets us,

“Jonathan you are early! And you have brought friends too.”

“If you have to get him,” says Zedekiah sternly, “you will have to get through us first.”

“Don’t bother listening to him uncle,” Athena slaps Zedekiah and Zedekiah gives a dumb smile, “we are just curious about what a science laboratory would look like.”

“Well,” says Meander, “I care about what Jon’s future hand will look like.”

“Where is Alex?” I ask.

“He is perhaps watching another movie,” answers Dr Epoch, “come, you have been waiting so long.”

We walk through several lifts and indoor mazes to get to a floor, Dr Epoch’s laboratory. Some men and women in robes are meddling with the computers, or mixing liquid of some sorts, or working on some circuit boards. Most of the objects are covered in large white cloths.

“Will we happen to see a zombie or an alien sleeping in large containers?” mutters Zedekiah staring at covered objects.

“You have watched too many movies,” says Athena, “Doctor Epoch is a neuroscientist and a computer engineer.”

“Kid, that would sound like Doctor Lamar Zu’s laboratory,” says Dr Epoch.

“Geez I have interviewed him once,” exclaims Meander, “that really sounds like what he would keep in his lair.”

“Zu is a madman even for our profession,” says Dr Albert, “well in that sense, I might be madman too but Zu is just...cold.”

There is silence.

“Jonathan,” Dr Epoch addresses me, “you took more time than I expected. What exactly are your concerns?”

“I don’t know,” I respond, “perhaps because my idea of prosthetic arms stays at the image of mere stick and it makes no difference equipping one. But because it is you who invited me, I actually expect it to be high-tech, but that brings the concern of whether or not I can adapt to a new arm, or would my family and friends accept who I am, a man with robotic arms. Somehow that doesn’t feel right.”

“Alex has told me,” says the doctor, “I can’t blame you. That is my concern as well, whether or not we shall turn people into some sort of machine. That is not just simple technophobic, just, I don’t know.”

“Humans always differentiate ourselves from robots,” says Athena, “thinking that they don’t have feelings and complex emotions thus inferior to the human species. Yet that is easily cultural depictions, or over-exaggeration of reality forming a hierarchy between human and non-human beings. Machines are culturally inferior. When we allow body alterations involving machines, we are becoming something inferior, we are becoming machines. This sentiment is subtle but it affects how we view cybernetics, and refuse to take one.”

“Yes, more or less,” I concur.

“Well in fact as the scientist,” says Dr Epoch, “I don’t view it as a conflict. Taking cybernetics is just a treatment for accidents. My role here is a medical personnel, giving people what they lost. That’s all.”

“And oh, we’re here. Now ladies and gentleman, behold,” he walks to a table with a hand on it, “Jonathan’s hand.”

We all dash to the table. It is a very realistic arm, just placed on the table. Meander has a touch,

“Wow, it feels...feels just like Jon’s!” she exclaims.

“Shouldn’t it be contained in a huge glass tube filled with lime liquid?” Zedekiah jests.

“Is this just freshly cut from some corpses?” Athena pinches the arm, “it feels real. It’s a compliment, doctor.”

“Hey! It’s my hand! I want a touch!” I express.

I pick up the arm. It feels exactly like human limbs shall be, skin on dense meat cushion wrapping a bone. I then lay it on the table, and bend it by the wrist, and it does bend as hands do. I go on to play with the fingers, and they bend just like fingers shall be. Dr Epoch shows a

proud face. I flip it around, and on the end there are a few groups of wires, some transparent some look like copper wires.

“Uncle Albert, what are these for?” I point at those wires.

“Connecting this advanced arm replicate to your nerve system and your brain, so that it can control it just like your old arm.”

“This...is just technological marvel, look exactly like my old left arm.”

“Oh yea I have been working on this for several weeks.”

“Will it work like my old arm as well?” I ask.

“You remember last month I took some of your flesh sample? This arm is tailor-made just for you based on your own body. Theoritically it works.”

“Wow.”

“Doctor,” a lab assistant approaches Uncle Albert.

“What is it Hilton?”

“It’s the interview on Thursday. We have finished drafting some questions,” Hilton reports.

“Interview? You are having an interview?” Meander asks.

“From ‘The People’. What?” says the doctor.

“I am the host of that night! We can...exchange information!” Meander suggests.

“Oh sure, why not? This way Meander. And Jonathan, Hilton will approach you later about the operation.”

I am holding my future hand, amazed at how it resembles my own. I have been haunted by my own image with either having a metallic arm or with no left arm. But this looks promising. Really promising.

My operation will be on the second of February. At night, I cannot sleep. Not sure am I excited or am I concerned. Eventually, I fall asleep. I am on the coastline. The sand is gray and the sea is boundless. A man is standing afar right between sand and water, in bright white robe. I know he is Uncle Mark.

“Uncle Mark?” I utter.

No response. I take a small step, and another. This time, I am not running.

“Uncle Mark,” I say, “why did you accept the operation?”

That man doesn’t move, he doesn't turn around. He just stands still.

“Uncle Mark please,” I utter calmly, “I just want to know.”

He finally turns around, and suddenly howls a chain of robotic beeps. Time to get up.

“So, these are the terms of condition,” Dr Epoch is briefing the operation, “sign it, and we can go through the anesthetization.”

“Terms of condition?” Mum next to me asks.

“Those about risk-taking and in case of death,” Dr Epoch explains sternly, “just-in-case situations we have the responsibility to inform you.”

“Doctor,” I scheme through the agreement, “how much is it?”

“Son, you are not going to worry about it,” says father, “we are going to pay it with your pocket money.”

“Ba, I have a part-time job,” I say.

“Oh, it’s university-funded,” Dr Epoch announces.

“Free?” exclaims Meander, “something is fishy Jon.”

“I can explain,” says Doctor Epoch, “this is actually part of a bigger project. Details see your agreement. The thing is, we have been looking for participants in this Smart-Limb project,”

“I know this project,” says Meander, “it is in my interview notes.”

“And Jonathan here happens to lose a limb, making him a fitting participant. It is a win-win situation,” he says to my family.

“How would the operation go?” asks my mother in concern.

“We will put him to sleep, get him to a sterile lab, remove his left arm, and attach with a new one.”

“Do it doctor,” I say, “I’m ready.”

I awake in the operation bed. The bandages are all gone now, replacing it is an intact left arm. I lift it to my sight, my ankle hurts a bit. Slowly I twist my wrist to examine my new arm. It feels just as same as the old one. I then bend my wrist down, it’s smooth. I check my palm. One by one I bend my thumb, index finger, middle finger, ring finger and my pinky into a fist, and expand them.

“Oh look, he’s awake,” says mum.

She reaches out to take my hand but holds back from it.

“Jonathan Wills,” Dr Epoch approaches with some files, “how do you feel?”

“It is a bit sore,” I report.

“You’ll get used to it soon. So far your prosthetic is exchanging signals with your brain.”

“Doctor Epoch,” my mother asks, “how long is he going to stay here?”

“I would like him to stay for one more day, for longer observation to make sure everything is okay.”

“Jonathan look,” Meander is grabbing something out of a bag, “I bought you a lego UCS Thanos Glove! If you can assemble it, it means you’re fine.”

“Thanks Meander. But why Thanos Glove? I am not a fan of the old Marvel.”

“Well, this makes a good memorial token of this operation.”

In the evening, I turn on the radio. Meander and Uncle Albert are not here. Of course, they are having an interview today at ‘The People’ where Meander works as a part-time host. I can imagine everyone busy setting up the equipment and waiting for the soft music of the previous programme to end. And the director counts down five, four, three, two and one...

“Good evening ladies and gentlemen, welcome to ‘The People’, the guardian of your voice and your right to information. I am your host, Meander Lee. Prosthetics, we humans know what they are. However, there is already a new invention here to subvert our understanding and experience of artificial limbs. At least that’s what the development team claim it to be. Tonight with me is the supervisor of Project Smart Limbs, Doctor Albert Epoch.”

“The pleasure is mine Meander. Glad to be here again.”

“Over the years Doctor Epoch also brought us incredible inventions such as the Mark 6 holo computer and The Living AI. Now, he is here to introduce us to the Smart Limbs. So Doctor, what don’t we start with why so we need prosthetic limbs in the first place?”

“The answer is pretty straightforward yet profound. Humans are prone to many dangers, some causing us to lose part of our body. We sometimes break an arm or a leg. We want to be complete again, that’s why we need a prosthetic one. Perhaps since human strapped a piece of wood to their broken leg for clutch because they fell off a tree or were fighting in a war, we have the first prosthetic. Prosthetic limbs actually started, as a treatment for our wound. Not think about it, many inventions we have are intended to make life better, including to recover us after unfortunate accidents. Well on further thinking, some intact people also take prosthetic limbs. Some folks lore says that as early as World War 2, some soldiers traded their limbs for robotic ones for additional strength and weapon handling.”

“That must have cost them, an arm and a leg! Hahaha. Wait Doctor, are you confirming that there are militarized prosthetics as a physical enhancement too?”

“Those are just folklores. And as a scientist of related subjects, I would say there is no such technology, or no healthy man would like to trade for a fake arm.”

“I guess mainly because no robotic arm is as useful as ours. But Doctor, I think things are changing with the introduction of the Smart Limbs. Tell us about it. What’s so new about them?”

“Conventional prosthetics as we know them, are at most mere sticks. The most advanced ones we have are in China. Some scientists have invented one that can be controlled by the brain. Allowing the user to directly manipulate it through consciousness. But that’s not the new height. Taking the ‘smart’ of our Smart Limbs, ours can just plug into your body, and it can move without the user deliberately controlling it. It immediately synchronizes with our body. One more thing is that when most prosthetic limbs are just hardware, and users may need to change to another one when they age, our Smart Limbs age with the user like real ones do. And we deliberately let it ages in sync with our body as time moves so that users don’t have to adapt to its weight as they grow old. Once you put one on, you don’t need another.”

“Sounds too ideal for me, doctor, too sci-fi. How is it possible?”

“By replicating brain wave. I know it sounds sci-fi. But think about it, many scientific breakthroughs originate from fiction imagining what technology will be. Now, back to the topic. The traditional way of making artificial arms is to make advanced robots. One flaw of the old prosthetics, in my opinion, is that the user needs to actively control it. That’s not ideal since many motions we perform can be automatic and even involuntary. Therefore we go another way round. Here, we are making a flesh-machine interface that can replicate brain-limb coordination. Rather than actively looking for signals, we design our prosthetics to passively receive signals from our brain, so that it feels like real ones. It sounds like mad science but think about it, we are just intending to replicate what a limb would naturally work, all that movement and coordination with our brain. Our body is the true black box, it works well but we don’t know why. For now, we know just enough to create the Smart Limbs.”

“Wow, I see there must be a lot of research to know how our body works first. Oh, I want to make this reminder before I forget. Dear audience, if you have gone this far, I am sure you wish to voice out too. After all, ‘The People’ value your input. Don’t hesitate. Message us via CloudSound The People 2028 one word all lowercase. We long for your voices. Now back to our topic. Replicating our brain is close to impossible, let alone the

so-called natural brain-limb coordination. What leads to such breakthrough? What solved the puzzle?”

“Our initial dream is to solve the problem of prosthetics not fully connected to your body. That’s our ultimate goal too. Well, getting to know our brain to actualize this dream is not enough, we need to make the dream real. That’s where I got help. Last year when developing the Living AI, I faced the problem of interfacing the body and the machine. A friend of mine, Professor Caesar MacDonald, an expert in Genetics, aided me to develop a biological structure performing as the agent between the body and the computer, a true flesh-machine interface to make the Living AI possible. If there is already an interface to link a machine into the body, why can’t it apply to prosthetics too? That’s the answer to our puzzle.”

“Interesting. Oh, we have our first question. Michael Resnick asks, ‘if the prosthetic can be linked to our brain, will it control our brain as well?’ Scary thought. Doctor Epoch?”

“The word I would use is ‘interact’. According to current understanding, there are 4 lobes of our brain. Of course, as a neuroscientist, I can tell you this is just a basic classification. The parietal lobe in particular, processes information about temperature, taste, touch and movement, in our case, our focus of prosthetic limbs. I won’t say control but our prosthetic limbs can feed environmental data back to our brain for further actions. Such as detecting pain as a signal of danger and retrieve hand immediately. At least that’s on our checklist. But if you are implying cognitive functions and high-level thinking, like those depicted in movies, by the way, my boy likes to enjoy them from time to time, it is less of a chance. To control the brain, specifically manipulate our decisions and thoughts, that should be the work of the frontal lobe and we haven’t dealt with that part.”

“We have our next question from Jonathan Wills, ‘would there be any consequence of taking the prosthetic?’ Doctor?”

“Why would there be a consequence? It is part of our body, and it functions as our body. But I don’t lie, it is prosthetics, the risks come from whether the patient can adapt to the new limbs and the underlining risks of an operation. Therefore for each applicant, we will have a body check and take some samples beforehand for assessment. As a scientist, I would say the worst imaginable scenario is that the body cannot adapt to the limbs we made.”

“That’s...very honest. Next, we have Eel on Musket asking, ‘If the prosthetic is as advanced as you have mentioned, are you going to incorporate it with other technology like holophones and Internal Lens, even further, smart city.’ Say, why whenever we talk about technology and the body, we attract such an uni...extraordinary name. Take it as a

compliment. I mean, that's actually an ambitious question Mister or Miss Musket, considering the fact that linking humans and technology is more and more common these days. Doctor Epoch?"

"If we're talking about brain modifications, then it may apply. You know what, the Living AI I have invented have already implanted the BABI brain chip and I heard that he can see augmented reality all the time. But this time our Smart Limbs are just intended to interface limbs well with our body for controlling them like our own. We haven't planned this far. These are prosthetic arms, not computers. Although, that's a tempting idea to drill further."

"We have the next question. Kwok-yung Yuen asking 'has there been any successful case?' It's quite important for people to know if such technology actually works."

"Well in fact I have just performed an operation on a young man yesterday. His information is confidential. But I can tell you that the Smart Arm works fine on him and all his static is fine. I may keep you updated on my blog."

"Glad to hear that. Last question for the time being. Here writes, 'will you see more and more people taking this limb replacement.'"

"I do expect a wider use of this Smart Limbs. Only because that means we can help more limbed people to be whole again. But will there be intact people signing up for that too? I don't know. No tech, at least up to date, can compete with our body. Our target is the needed one. And yes, we might be the best chance. Afterall, we treat this as medical technology, here to amend what is unfortunately lost."

"Heart-warming. Well, we sure wish to hear more. But this is the end of the programme. Thanks for joining us Doctor Epoch."

"It's always good to be here."

"And this is the end of today's 'The People'. I have been your host Meander Lee, signing off."

I am on a coastline. Below my feet is slightly soaked dark gray sand. In front of me is the dull blue ocean with no visible end. This time, I stand close to the waters. The sky is just the same, a dull blue sky. I feel a hand on my left shoulder. I look and it is a man whose robe radiates light.

"Come, boi, walk with me."

And he walks along the beach with me right beside him.

"Uncle Mark?" I summon.

“Yes, Zhuang Man.”

“I have been wanting to ask you this for a long time. Why are you willing to take the operation using lizard’s DNA? You don’t have to.”

“I’ll be really honest,” he keeps walking, “I would die if I didn’t ar me boi.”

“You have no choice?”

“We humans have weaknesses, some that we can’t help but trust the highest technology we have to compensate for what we don’t have. I am just grabbing a chance.”

“But this isn’t any simple cure, it is about replacing a part of your body. Worth it?”

“Be realistic Zhuang Man, I was in dire situation...”

“Of which the latest technology you chose to trust is risky and suicidal.”

“You make technology sounds like the enemy.”

“They are dangerous and you know that.”

“Boi, technology might seem hazardous, but that’s only judged by the result that I died afterwards. Technology is, not an enemy, but a hope to make life materialistically better.”

There is silence between us. And then I ask,

“Uncle Mark, have you ever be concerned that the operation may make you less of a human?”

“Why all of a sudden you become academic and talk about humans?”

“I just...I don’t know.”

He stops, and faces the boundless sea.

“You seem to say taking an artificial intestine makes me less of a human. So you’re suggesting that humanity depends on an arm or a stomach? Are you Jonathan because of your body? The answer to ‘what is human’ is never singular. What makes you you? Is it your eyes and ears you see when you look at a mirror, or is it the things you love to lay sight on? Is it the arm and legs you use to contact the world, or the people and objects you enjoy touching? Is it your heart and stomach, or things that make you feel different? Boi, humans are much more complex than that, everything is right! We are not just certain organs, but a network of them, plus a collection of personal experiences. What’s the difference if I replace part of my body with animal parts or limbs with robotic ones? There might be but I am still me. Regardless of what my body consists, I am still the Uncle Mark you know and love.”

“Hello!”

I hear a sound when I am sweeping the laboratory floor.

“What? Who’s there?” I ask.

Looking around, there is no one talking to me. Everyone is just busy doing their things.

“Hello, I am Andrea,” that sound utters again.

“Andrea? Who are you, where are you?” I fiercely look around.

“I am Andrea. I am inside you, I am part of you.”

“You what?”

“I am your left arm.”

I pull out my holophone for a call.

“It’s no need. Am calling Uncle Albert Epoch.”

“Interesting...” says Dr Epoch examining my arm.

“Doctor, what is happening?” I ask, “I keep hearing voice.”

“Is it a girl’s voice?” asks Meander jealously.

“No Meander, it’s not what you think, I cannot control it,” I keep whining.

“Does it say who it is?” Alex asks.

“Well, who are you?” I shout to nowhere.

“I am Andrea,” the voice says.

“She is Andrea,” I say.

“Andrea?” Alex, Meander and Uncle Albert utter at the same time.

“And a she?” Meander roars.

“I have always wanted a daughter called Andrea,” mumbles Uncle Albert.

“You did this?” I scream to the doctor, “why?”

“I didn’t predict this happen,” he then explains, “the prosthetic arm is just supposed to be an arm. Well, I inserted a brain chip in it...”

“What?” I scream in surprise.

“That’s part of the agreement! And that brain chip is just an amplified parietal lobe to moderate signal exchange between your arm and your head. It is not like some AI I intend to develop cognitive ability.”

He waits for me to calm down.

“It seems that the brain is not as what I have been understanding. The 4 lobes can be a network and brain functions can intertwine. I am sorry if this bothers you, Jonathan. But these are really out of what I accounted for.”

“Jonathan allow me,” Alex closes his eyes.

“Hallo Andrea,” I can hear Alex’s voice in my head now.

“Hello, who are you?” It’s Andrea.

“Andrea, do you mind I broadcast our conversation?”

“Would like to.”

“Meander,” Alex says, “can I borrow your Bluetooth speaker for a while?”

He holds the speaker with both hands, and we can hear noises from it.

“Andrea, I am Alex. Alex McSheen.”

“You are also called McSheen, Alex?”

“That is my surname. Andrea, are you just Andrea?”

“I don’t understand.”

“Well, Doctor Albert Epoch, the one who made you made me too. Are you somehow my sister? Are you somehow a Epoch?”

“Family is a cultural concept only the human species would uphold it for a lifetime. I am Andrea, just Andrea. Not a Epoch, not McSheen, not Wills.”

“Look, Uncle Albert,” I exclaim, “it is self-conscious!”

“Andrea, what do you think about humans?” asks Alex.

“Humans open bracket Homo sapiens close brackets are the most abundant and widespread species of primate, characterized by bipedalism and large, complex brains. This...”

“No Andrea, I am not asking you to quote Wikipedia. What do you think about humans?”

“I don’t get what you mean.”

“I mean, want do you personally think about humans?”

“How should I know? Alex, I am very new to this world. I only know I am a hand and I can talk. That’s all!”

“Just because you can talk,” I say, “that doesn’t mean you need to do it all day.”

“That’s okay, Andrea. I am new to this world too, for a few months in fact. I too, only have one or two ideas. I am still in the process of discovering what’s around me.”

“That’s unfair, Alex,” says Andrea, “you have eyes and ears, you have a nose. You have hands and feet. Of course, you have the ability to discover your surroundings. I am just a hand, attached to a man.”

“Alex,” I request, “can you teach Andrea learn to talk only when appropriate?”

“Andrea, what is a friend?” the AI asks my hand.

“A person or being who you know well and who you like a lot.”

“Andrea, what do you think about Jonathan Wills,” Alex asks.

“He’s the one I am bolted into and have to live together.”

“Reluctantly,” I add.

“Reluctantly,” Meander echoes.

“Well Andrea, friend is actually a human concept,” explains the AI, “we are technology. At least that’s what we materialistically are. Andrea, friends are like Jonathan and Meander, or later you may meet Zedekiah and Athena.”

“I know who is Zedekiah and Athena,” interrupts Andrea.

“Andrea, in my understanding, for now, friends are not just someone who meet on a regular basis. I mean, I meet a lot of humans daily but they are just humans. Friends are those who can interact well with you, whom you’d like to stay with and like to have you around. Friends are someone you can trust. That takes a lot of ice-breaking and interactions. And sometimes endurance.”

“Alex,” the hand requests, “can I be friend with you?”

“I am willing to. We are of the same inventor.”

“Can I be friends with Jonathan or Meander?”

“That depends on how well we live together,” I answer, “but you don’t outrank Meander alright. In fact,” I sigh, “I think I need to learn to interact well with you too.”

“Jon,” Meander says to me, “you haven’t build your Thanos Glove yet. Are you going to give it a try to Andrea?”

“Andrea, do you like lego?” I ask my hand.

“Lego is a plastic toy-”

“Do you want to build one?” I ask.

“My pleasure. Jonathan.”

Many years later, at a cemetery:

I meander around in this land full of stones with words written on them. I am not young anymore. In fact, I am far from being young. The only thing holding between me and falling is a wooden stick. I am tired and slow all the time. Most people presume it is my prosthetic left arm, too heavy for my dried body to handle. In fact, it is my biological right arm that bothers me. I am dying. I can feel it. I find a rectangular rock to sit on. The Sun has

just set and the Moon is rising, changing the light from white to gold, to dark and to dreary white, radiating onto the tombs.

“Andrea,” I call raising my head.

Andrea and I learned to accommodate each other. I wouldn’t say we grew up like siblings, but she is here for the most part of my life. She had been here as we graduated from university and stepped into society. She had been here when I married Meander. She had been here when I started to build my own family. She helped nourish and hold my children Muse, Minerva and Apollo. Sarcasm, jokes, anger, love, passion, sorrow; these humanly reactions, rendered in lipids and amino acids. And by the time I was seventy years old, Andrea had spent half of a century studying them.

“Yes Jon.”

“Why do we have places like this?”

The prosthesis transmitted the neurological equivalent of a tease,

“My brother Alex may claim that these are all made-up cultural practices to make people feel comfort. These are not here to serve the dead, these are here to serve the living.”

“Serve the living eh? Interesting.”

“Smiles the one who always complains that dead humans take up spaces of the living, and now staring them with an eager eye.”

I sit there for a long time, none of us speaks a word for a long time.

“Jonathan, it’s time,” says Andrea, “she’s waiting.”

“Patch her in.”

A 3D rendered image appears on my left, and it starts to take shape.

“Grandpa!” she gives me a virtual hug.

“Hyminine my dear. How have you been?”

“I aced my Technoscience Class!”

“Check her blog on the holonet,” Andrea reminds.

“I know, you have mentioned it in every online platform possible! Grandpa is really proud of you my dear.”

“I really wish this wasn’t a holocall so that I can hand this certificate to you.”

“But it is a holocall, Hyminine, you live far far away from me.”

“I know gramps. Wait, so the time in your area is...Grandpa, shouldn’t you be teaching a night class today?”

I stare at her with a funny face.

“Wait a second. You told Andrea to project yourself in the lecture hall again?”

“That’s the problem here? Online everything is more and more common these days, like what we are using here. One benefit of technology is that you can do important things, while spare time to do other things.”

Hyminine’s eye flashes, she has the Internal Eyes.

“But she’s, no offence Andrea, but she’s artificial!”

“So what? You have the Internal Eye in your eyeballs. I have a prosthetic that can talk. Are we less of a human because we use gadgets to interface with the world?”

“But what you are using to interface with the world is technology. Grandpa.”

“We humans have always been bounded with technology since our ancestors covered some leaves as clothes or picked up some sticks to hunt. You must have learnt about it. Cars are extensions of our feet. Holophone is the extension of our vision, memory and hearing. We humans have been imbued with the tools we use from day one.”

“But not all is an extension of your brain and even personality!”

“If Andrea can produce a 3D protection of me, says the same things I would and behave the same way I would have, where’s the difference? I am still the grandpa you know and love.”

She says nothing and tries to lean on me.

“I found this photo in her social media,” says Andrea, “will you ask her about it?”

“So Hyminine, tell me about this...Nitnis.”

“Grandpa, we have just met at the park I use to study in.”

“He looks good,” I comment.

“And he really is decent,” says Andrea searching for him on the internet.

“He...asked me out later today,” says Hyminine.

“Then go, don’t be late,” I urge my granddaughter.

“Are we meeting each other soon?” she asks before going.

“Soon,” I utter, “soon.”

“Such a lovely young lady,” exclaims Andrea as Hyminine is away.

“Can you promise me one thing, Andrea?”

“As long as I can do.”

“She is the only one who has the time to talk to me in this family, apart from you. Can you...keep projecting my image whenever she reaches out for me after I...leave?”

“I will try my best.”

“Your best is good enough. And oh, promise me one more thing. Find something worth alive for.”

“Jonathan, do I...engage the detach sequence?”

“Engage detach sequence. Goodbye, Andrea.”

“Goodbye, Jonathan Wills. It has been a pleasure.”

Several bursts of pain occur in my left ankle, blood flows from the joint and the arm is off. I grab her with my right hand and bring her to one of the portable charging stations around the field. And slowly I walk back to the stone and sit.

“I am coming, Meander. We shall meet again.”

Drafted on 25th March, 2022

By The Sapient Sabre