ESSAY DRAFT

OF A BOOK WRITTEN

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ABOUT A NEPALESE

DREAMING OF BUILDING

NEPAL'S FIRST

SPACE CENTER

Dedicated to my mom and dad
And all those visionaries that came
Into this world to do something,
Something more than just living,
Living to understand and change,
Innovating solutions to humanity's
Most lingering problems,
Problems regarding mass starvation,
Extreme poverty, inequality, freedom,
Energy crisis, war, infant deaths,
Ubiquitous crime, Dictatorship etc.
Problems that would have been,
Vexing even the pre-eminent countries today,
Were it not for those selfless minds that,
Tirelessly worked on them to give us a life,
Many of us are able to live today.

1

Lasin was born in the Khotang region of Nepal. He was a dreamer. He got himself into a good school where his father used to teach and started his primary education there. He was interested in space. He got interested in space specifically because he had read a book titled ‘A Brief History of Time’ when he was 9 years old. A nine year old child fascinated by the writings of a scientific genius like Stephen Hawking was surely to have made a life long lasting impression on him. Later after finishing his SEE from a relatively good private school, he went on to become admitted in +2. He had chosen a good enough college with low fees causing him to pass his +2 without exceptional grades. He never felt he needed to do well in academics for doing what he loved, exploring. He went exploring hills and valleys of Nepal in his uncle's motorcycle that came with a single cylinder petrol engine of 155 cc. He first visited relatively well known regions of Nepal but later also drove with his pulsar in some rather obscure parts of Nepal. He wanted to get a feel for experiencing nature in its true form. Without one venturing into risky adventures he thought, one wouldn’t come across what’s beautiful about the environment. Later after having enough of his bike rides, he thought of getting an undergrad degree in physics. He didn’t have good grades and was academically not good. So he decided he would get into a space agency educational institution that had recently been established by ex ISRO Nepali engineers in the capital city of Nepal Kathmandu. ISRO was the Indian government organization that sent rockets to space using locally manufactured hardware by government subsidized companies. Milky Nepal was the name of the space institution Lasin went to. In his initial 6 months in the institution, he learnt about the rocket equation, aerodynamics for rockets, cryogenic liquid fuel propulsion, satellite manufacturing, ion propulsion, solid boosters, stage separation, NASA’s moon rocket the Saturn V and so much more. Getting to learn all these high level topics he found interesting and applicable in the rocket field without worrying about grades allowed him to elevate his skills in real life spacecraft engineering. The program was a 3 year talent building scheme designed towards producing Nepal’s own space manpower. Lasin was thrilled to apply his recently acquired knowledge to build an actual space center in Nepal. During his adventures all across Nepal he saw many land regions suitable for building a center with efficient supply of building materials and workers. As he dreamed about the center, he outlined what was going to be needed for it to be a reality. After long hours of consideration, he found that workers would be a problem. Since Nepal didn’t have a good economy, many technical skilled workers left the country in what was a massive brain drain to the nation. This led to huge gaps in unfilled

worker segments that had to be replaced by workers who already occupied another segment of the economy ladder. Lasin knew this would be a huge problem later because he remembered his uncle's business going completely bankrupt due to unavailability of skilled workers. The impregnable cycle of training a worker in the technical field then the worker leaving the nation in search of better pay thereby rendering the investment of the company to train the worker completely useless to its growth led to bankruptcy of the company. Citizens may blame this for the country's political and economical situation but the reality is countries like Nepal were already so poor when the other first world countries developed that it became near damn impossible for them to bounce back. Lasin had this knowledge of economic growth and output of a country. He gained this knowledge from his father. His father was an economics teacher at a local college in Khotang. Since Lasin left Khotang for his +2, he didn't get the opportunity to spend lots of time with his father in his later teen years. Not getting the necessary advice from his father that he needed to earn good money but not doing big things, he never cared a lot about earning money through the easy way. He was interested in doing big things that were big enough to change the outlook of society upon itself. He wanted his country to surpass everyone through its culture. He wanted Nepal to present itself as a global seed of modernisation endeavors whether it be about safe and unpolluted water able to produce with an energy input of a matchstick and output of more than 10 liters with that limited energy. Limited energy was the key to his thinking. According to him, energy, however cheap, must always be taken care of and must be made as efficient as possible. This was necessary because in order to do great things that required 10 to 100 times more energy than current output, the ability to reduce that by even 1% would make a huge difference to the total energy stock. Remember, energy is never free so the ability to optimize on available energy meant greater economic output. Lasin had thought through all this, he still saw the workers problem to be a massive hurdle in his space center undertaking. If he was able to generate enough capital so as to attract migrant workers from neighboring countries like India which had a massive population that could be considered an infinite pool for Nepal's requirements by providing 10 to 15% better pay than them then this problem would definitely be solved. So what was Lasin planning? Lasin's ultimate goal was a vague idea of converting Nepal's agro based economy into a completely space dependent economy by providing massive cost cuts on space launches provided the launch itself would generate enough revenue to further grow the plan. These massive cost cuts were difficult to come by. Nepal with its baby steps in space exploration had to compete with the already proven and established giants like Spacex,

NASA and ESA. Spacex was notoriously difficult to compete with for Lasin because they had mastered the amazing feat of propulsively landing a liquid fueled rocket booster on top of a barge in the middle of the ocean. This led them to be very aggressive with their launch pricing causing everyone to look upon them for launching their satellite cheaply into space. Lasin was pitted against the behemoths. Without a solid plan he would not even have started and be thrown away from the arena.

But was such a thing possible in Nepal? Nepal was a poor country with almost half of its people living in poverty and those also illiterate. If anything was left to do in this country was giving quality education to these people and providing food to those who weren't sure about their next plate. Throwing away vital money urgently required by those starving people on something as inconsequential as the space race when it came to it's trickling effects on the general economy was certainly a bad argument. So then why would Lasin, a boy himself growing in a poverty stricken region, want to open a space company? There were several reasons but the main reason was Lasin's thinking that Nepal, a country that had nothing to prove its capability to serve the global economic engine, could at least show the behemoths that it got the guts to tryon radical new stuff to change its trajectory suddenly. Imagine if Bhutan launched a rocket. A country that didn't even have a steel processing factory and the only carbon negative country. Well at least Nepal had some metal works ability. The IT sector existed in Nepal for some time but the reach of the internet to the general populace had taken a longer time than necessary which made it difficult for startups booming to continue to fund their business that were going in deficit. Nevertheless, the IT sector made some recovery and made a comeback along with the smartphone age which made the internet available to all by putting cheap computing devices in everyone's pockets. That however wasn't enough to stop the brain drain that was happening and destroying the pace of growth of the entire country. If the young generation left their country all the time, the country for sure wasn't going to develop by itself. To prevent stagnation, the only doable thing was to stop the talent exodus which would of course require massive efforts but would be feasible. How would a country stop its citizens from leaving it? The only solution that wouldn't involve a dictatorship banning all transports out of its territory was for the nation itself to prosper and provide economic prospects to those young generations. Brain drain did a lot of harm to the stability of a country. The country's vital manpower that is its citizens should not be allowed to decrease. Lasin knew this and he himself saw talent exodus happening all the time. What could he do to prevent all this from happening? Well he would obviously have to start somewhere. The best action for Lasin would certainly

be to establish some kind of industry which required huge amounts of human labor and that would fuel the country's economy, provide job to thousands and on the sidelines stop massive numbers of people leaving the country in search of better opportunities outside the boundary. The space centered economy that Lasin had envisioned would definitely work towards achieving that goal but it was not the easiest way to do what was necessary. The space sector was expensive as hell and very prohibitive towards using old technology. In a country where car and motorcycle engines were not produced and repairment facilities existed few and far between, manufacturing a robust rocket engine capable of pushing tons of flammable fuel through its exhaust was something unheard of. The previous countries that had ventured into the space sector in the early 1950's like Russia and USA had a strong foundation. They had the manufacturing and supply capability as well as massive amounts of labor. The developed countries Switzerland, Morocco as well as most of the European countries had the capability but didn't think it necessary to put their foot into the rocket business. That was not something that attracted their societal group mind. China was behind when it came to the ultra new technologies so it didn't move on towards developing space launch capacity till late 1990's. India was the same. It inherited Russian developed space technologies to grow its own space sector. Japan had none too. It didn't have a military still, even when all other major countries had one. The rigorous definition of a country having to have its own military didn't apply to Japan. Space was a derivation of rich military in all the cases during its early instigation. That being the case, the country with insufficient nationalism and lacking military infrastructure was not hoping to have a space capacity. Germany made its rockets defunct after the failure of Hitler's V2 rockets to make any significant impact upon world war 2. But it didn't defunct its consumer cars and heavy motors manufacturing ability because they provided a good economic incentive not to. Notwithstanding the fact that today Germany inherits a great lot of its industrial capacity from the dark Nazi world war 2 era, it had increased its power in the consumer space massively and modernized all its operations. Despite this however, Germany didn't yet have that power in the space sector. It had to ask help from the foreign super powers like America and China for sending its own satellites into orbit. Lasin found this fact absolutely pathetic. He didn't like how a nation kept itself away from space even when it had the ability and the resources to have a significant impact in the field.

Nepal however was a totally different animal when it came to taming the space beast. It had no experience and nothing. Lasin figured out that the best thing he could do was start with some sort of rudimentary factory that made steel silos. These silos would then be fitted with old used soviet engines. The

specific impulse of those old soviet engines were enough to lift a good size testing vehicle. The modern manufacturing methods used for building new age space vehicles helped reduce the weight and size. The electronics had been greatly simplified. In fact the old rockets didn't have any electronics at all. Modern rockets were fitted with micro electronics that gathered data from all the sensor arrays fitted onto the rocket engine and fuselage. This was amazing progress in such an eccentric and niche market. The early rocket engineers really thought and considered the future entrepreneurs and designed their rockets to be compatible with new emerging technologies like motor pumping, computer guidance, full flow staged combustion, cryogenic fuel etc. Budding tech entrepreneurs were thus eager to utilize the earlier developed science to grab their portion of stock.

2

The next day Lasin packed some clothes, some food, strapped them to his own honda motorbike and left for Khotang. He arrived at his parents house early in the morning since he left at 9 pm the previous day. On his way he saw a scene he was to remember for a long time. He saw a bus returning back from Lafyang, Khotang suddenly losing its grip and falling into the Trisuli river. This news was broadcasted to the entire Nepal the next day with reports of more than 48 people dying in the accident. Lasin felt like something had to be done in the transportation sector of Nepal otherwise people would keep dying like this. He came to the realization that advancements in the space sector would provide rippling benefits to the people in other sectors thereby uplifting the entire country from just one undertaking. This was the moral obligation of his, Lasin thought. He must do something otherwise Nepal would crumble and people would suffer even more. Lasin ate the delicious food his mother had cooked that morning while watching the news of the accident on the radio. The cable network for television had not yet reached the Lafyang region. The Internet was a far cry in regions where television was absent. During the afternoon, Lasin was writing something in his journal. It was the preliminary plans about establishing a space center office where Lasin would dream up ideas and execute them with the help of the government. He later found out it was too early for that because when he called the space agency he enrolled in 6 years ago asking about Nepal government's plan about establishing a space center by private individuals, he got the reply that the Nepal government didn't have any such plans. This wasn't what he was expecting. He thought he would contact the government or do what it would take and ask for cheap land for private lease and establish a space center office there. Since the government didn't have any plans about sending rockets into space, he moved towards doing it himself. Lasin called his friend Niban who studied with him at Milky Way. Niban was an amateur systems engineer and designer for rockets. He was capable of taking raw materials and passing them through molding machines in order to manufacture the fuselage, nose cone and base of the rocket. Niban agreed to Lasin's plan to open a rocket company in Nepal with homegrown technology. That evening Lasin packed his things once more and headed to Namche Bazar of Solukhumbu. He visited that place during his motorbike rides. He found it was a good spot for a rocket launch complex because it was at a high altitude so it was efficient to launch rockets from there compared to near sea level even by a fraction of a percent. But it was all about a fraction of a percent to Lasin. While arriving at Namche Bazar the next morning, Lasin stopped by a hotel to book a room for a week. Why was he staying for a week in the middle of a tourist zone? Because he wanted to

study the area thoroughly in order to construct a launch complex there. It was all about the launch complex now. Previously many space agencies of Nepal thought of constructing a launch complex but none had succeeded. Now a visionary like Lasin could be able to do what many before him couldn't simply because of their lack of execution. Nepal was a poor nation so funding for a space launch complex construction by the government would be really hard to imagine. Instead Lasin was thinking of a new system of worker compensation through the use of crypto to funnel in money from foreign venture capitalist investors that were interested to earn some money from the relatively far risky prospect of a rocket company after what they saw with startups like Spacex and Electron. It was nearly impossible for Lasin's plan to be successful since the government had enacted a ban on crypto trading because of its potential harm to Nepal's economy by taking money from the country and trading it for foreign stocks without paying a dime of tax money. A new software developed by a fellow Chinese gave Lasin something to work with. It was called LaborPay. LaborPay specialized in paying labor money for foregin workers for their work contribution to the affiliated company. Lasin didn't have any idea how he would go about paying local workers with foreign dollars without the notice of the government so he decided to make fake documents of a new IT startup company specializing in astronomical readouts through an app on a smartphone. Since smartphones were ubiquitous and vast majority of people were still religious superstitious, he thought by faking the numbers the app was downloaded as an apk on the android platform directly through the website, he could convince the government that the massive revenue generated through in-app purchases would be the money the workers at the launch complex project were paid with. The plan was all set. All he needed to do now was execute it. He stopped his bike at a plot of land high above a molehill in the Namche Bazar central village. He saw people carrying bricks and logs on their back in a locally used basket contraption called 'doko'. He thought all he needed was some capital and he could utilize the labor of those people for less money than what other rocket companies abroad were paying for their workers. He pulled out his notebook from his backpack and quickly glanced at the size of the plot of land and compared it with the requirement outlined in the notebook. He found out he needed to extend the plot by some 6 meters in order to make sure. The mole hill was a peculiar spot for a launch complex construction because no vehicle no matter the size would be able to haul the rocket on top of it. Why did Lasin want to build the complex on such a difficult spot? Well it was all about view angle. What view angle? View Angle referred to the angle at which something was viewed from a vantage point. Nepal consisted of lots of molehills and high hills so if the rocket complex was

built on flat land then a hill would surely block it rendering the sight unseeable from a distance of a few kilometers. Funding for a space venture almost always came from people's excitement. People when they became excited about a new prospect tended to urge the government to increase it and when they were not excited tended to urge the government to decrease it. Since government funding is always taxpayer's money, this fact couldn't be overlooked. So if Nepal's first space complex was built on top of a hill like the famous Swayambhunath temple of Sundhara, Kathmandu, the project would attract lots of tourists that would come sightseeing thereby generating lots of revenue for business around the locality. This would increase people's excitement, increasing gov funding thereby equipping the launch complex for heavier rockets and also on the sidelines generating massive revenue for tourism businesses around the region. This would inevitably have ripple effects on other parts of the country like Kathmandu with its only international airport then. It would change the face of the country for sure and Lasin couldn't be more happy with that prospect. Lasin called Niban again to talk about everything he had thought of. Niban felt excited but got scared thinking about the daunting task laying in front of them. So now it was all about doing the things and seeing whether it worked or not. Niban arrived at Namche the following day all tired and nauseated. The bus travel in hilly parts of Nepal was not a pleasant experience. Many people vomited at the windy road turns because of the bus odor. The buses in Nepal were old and based on 1950's design. This caused fumes leakage that induced headache and nausea among passengers. With a day of rest, Niban felt good again to talk with Lasin about their complex plans. Namche was a good spot Niban thought but a better spot would be Butwal he said. Butwal's Nuwakot hill was a booming area with cable car infrastructure in place but not yet operational due to budget shortcomings. If they could lease the land and construct their complex there then surely the cable infrastructure would come in handy for transporting large rocket fuselages without any road infrastructure to allow a 18 wheeler truck to pass by. It was an ordinary night in the middle of an ordinary hut cottage disguised as a night stay hotel by local people to generate a revenue in the Everest climbing craze that occupied foreigners' mind to come to the small hilly country of Nepal but right then in an ordinary situation they were contemplating the most extraordinary thing their generation or the generation before them had ever contemplated, transporting rockets to the top of a hill in cable cars.

3

Niban and Lasin outlined the method for the transportation of rockets in their shared notebook while also detailing the total cost that would amount for the construction and labor pay. It seemed reasonable like any other startup cost so they thought it would all work out for a second while glossing over the fact that they were undertaking the most difficult construction project any nation had ever taken without the vital support of the government. Let it be then they thought, it's all privatized now like the construction of houses and hotels, no need for the government to be involved in this. "Ok then," Lasin said, "Lets go to the municipality office of Butwal asking for the land lease and show them the outline of the project and whether they are interested in funding it or not". "Sure," Niban added, "Let's do this then!" The petals were falling. It was the middle of autumn and the scorching summer heat of the previous month had passed by. They arrived at the Butwal municipality office the next day on their bikes. They waited outside and said they wanted to see the mayor. "The mayor is busy, come next week." replied the mayor's PA. "We have urgent things to discuss with him, allow us for a minute and he'll decide if he's interested or not." answered Lasin. "Ok, let me see." After fumbling around for a minute, the mayor's PA finally pulled his phone out and started typing the mayor's number. "Hello sir, I just called you to check if you are busy. If you're busy then I'll keep quiet." The mayor's reply may have been no, so the PA added, "Sir, I have two guys that want to see you. They say they have some urgent things to discuss. Should I send them?" The mayor may have said ok so he let them in. "Hello, sir." Lain started.

"Yes, you wanted to see me?"

"Yes, sir. It was about taking land on a lease."

"Ok, tell me more. Which land and at what premium?"

"Sir, actually we want the government to offer us a discount." added Niban.

"Discount? But why would a government give private individuals a discount? Where would the tax money come from?" the mayor added.

"Um, actually the land will be used to construct a major space center complex that will be used to provide space launch facilities to our global government partners like India, China and possibly if we can do this cheap enough, European countries and US as well." Lasin replied.

The Mayor was dumbfounded. After staring at Lasin's eyes for more than 20 seconds, he finally blinked and added,

"You want to do what?"

"Yes sir, here's the brief outline of the project. We would like for the government to invest in it as well." Lasin answered smiling. "Does this sound reasonable sir?" he added.

“Well, of course. But why Butwal? Why not Kathmandu? Or Pokhara? Or any other municipality?” the mayor said back.
“It’s all about efficiency sir.” Niban told the mayor. “We want to build a launch complex in Butwal because in all of Nepal Butwal has turned out to be the best location for this endeavor.
“But, it would be far easier for the more powerful Kathmandu’s mayor to approve such projects.”
“No sir, it would be difficult there. There's no cheap land as the available land has high demand, so the price is very high.”
“Ok, come to me next week.”
“Sure sir.” Niban finished.

The next day, Niban and Lasin hopped on their bike and traveled to Nuwakot. There was the cable car infrastructure that was unable to be finished. They saw exactly how that would come in helpful to transport the rocket fuselages. The real problem though was manufacturing. Without manufacturing rockets at low cost, no amount of innovation in the launching and landing front would be beneficial. So they started to think about the manufacturing prospect and outlined some ideas about how they would accomplish that. Before anything concrete came to their mind, they started feeling hungry. They went to the nearby cottage and ordered two ½ plate chowmein and two beer cans.

“It might be more difficult than we think Lasin.” Niban started.
“Where there's a will, there’s a way. And also we won’t have to worry about anything once we get the wheel spinning.” Lasin replied.
“Yeah? How exactly?”
“Well, once we put things in place like manufacturing, transportation, contracts and finally the glorious launches, the balls will get rolling and contracts will keep on flowing so we won’t have to worry about money anymore then.”
“But, that’s a far later prospect. When will we ever reach that point?”
“Niban, you are too invested in the problems of today and aren’t seeing the vision clearly. I would advise you to see the problems once they arise but right now I want you to set your eyes towards the bigger goal of founding a space center in Nepal.”
“Yeah yeah sure..”

One week later they both go back to the mayor’s office and ask his PA for permission to meet him. But this time the PA allows them without asking since he noted the appointment the mayor gave them a week ago. Keeping this in mind, they both go to the mayor's office expecting the mayor to welcome

them. But instead the mayor was in a sad mood making an unlively face. This came as a shock to both of them.

The mayor started to speak,
“Aeh ah… guys, look, I was trying to do my best regarding your vision towards a space oriented country but circumstances didn’t allow for it. Right now as you know there is a local level election going on and I am facing major hurdles for my reelection because the societal development plans that I laid out last year have been in a limbo and it seems as though they aren’t going to be finished by this month or next or even after that. I expect a major delay in my campaign funding. You know how hard it is to do an election campaign in Nepal. You have to roam all around the city and knock on each and everybody’s house and convince them as well as yourself that they will vote for you and not another. This is a very difficult situation I am in right now. The budget isn’t passing through as I expected and it is causing high economic strain on the public. Right now giving that land in lease for a private corporation at a discount seems oxymoron. Also the highway at Siddhababa seems congested and supplying the building materials through the same route as you outlined would congest the traffic flowing through it. So I’m sorry, I cannot approve your project on that land.”
“Really? We came here after one week to hear that?” Lasin thought to himself.
“Sir, but I expect this project to be approved next month right?” Lasin asked with a straight face.
“Sorry, but no. I expect next month after my reelection, the corporation that took the land for construction of a cable car line will be back in charge of it and continue the cable car project . It is a more viable and sustainable source of income for us also. We have heavily invested on the cable car project through our government bonds and expect it to pay us back dearly. Ripping that cable car line which was promised to the citizens would have a negative impact on the party also.”
“Sir, but the cable car line will be necessary for us when the launch complex is finished. We will use that to transport rockets on top of the hill.”
“Really? It wasn’t mentioned on the blueprint. I thought you were going to use the Siddhababa corridor for transporting rockets. By the way, now that I get some idea of how large this project is going to be, may I ask you, how are you going to fund this? I don’t think you have money. Are you going to make a proposal for money and send it to the federal government?”
“No sir, of course not. Although we didn’t outline our funding source in the project book, we have a major IT company specializing in astronomical observation that is funding the substantial portion of this venture.”

“Really? What’s the name of the company? “
“MilkyWay sir. They also have a 3 year undergrad equivalent course set to produce skillful engineer level workers. They make and maintain the app which is currently released on the Android platform.”
“Well although I would love to be the host city for this amazing sounding project, my managers are telling me to keep my hands out of this right now. Would love to talk to you in the future as your project gains traction.”

They both leave the office looking pretty disappointed. One night suddenly a heavy thunderstorm appeared in the sky. Lasin was in his room in Kathmandu. Niban was with his sister in Pokhara. They both communicated sometimes through the phone but when it came to the project talk, they both sounded exhausted and ended their calls.

4

Lasin woke up in his pajamas. Suddenly, the cold breeze coming from the window chilled his skin. Winter had arrived. Lasin folded his blankets and went back to his nap. After struggling for a moment he woke up again. He was alone. Without a girlfriend or somebody to lay beside him, he didn't get the motivation to work sometimes. Although it was his passion to do good for the society in some ways big or small, it alway proved difficult in a small underdeveloped country like Nepal where opportunities were hard to come by and globalization influence had made it difficult to do extraordinary stuff locally. Lasin was a visionary though, in the gentle breeze of wind, he could feel something tingling his skin hair. He wasn't sure what was driving him but as he went to the kitchen wearing nothing but shorts to prepare coffee, he started thinking about the problems he had during the autumn. He wanted to do good but no matter what some hurdles struck him one after another. The coffee came out too strong for his taste. He took a sip but immediately put it down. After a while he was sitting by himself-made fireplace. Fireplace in an urban house was uncommon in Nepal. The exhaust plumes didn't have anywhere to go when the floor plans for houses didn't include a chimney. The privatization of houses and real estate in Nepal's cities had made it difficult for a planned grid system to exist in the cities. The general process for building a house in any city was to get your own land then moving towards designing the floor plan however you liked using whatever construction materials you fancy although bricks and concrete were the primary choice. Wooden houses were very uncommon even in Kathmandu where the city's name literally includes "wood" in its title. The system of developers planning and building houses which are then sold to the public didn't exist in Nepal. Unsafe drinking water was a huge problem in Nepal's capital city Kathmandu. There had been government planned projects for bringing drinking water to the city but it proved too costly to be handled by the city's income source. Even the capital city of Nepal is too poor compared to other countries' sub par cities. Lasin knew all this. He wanted to bring safe drinking water to his resident city. He made some drafts last year to submit to the government but when it came to the implementation the government was slow, incompetent and uninterested in his ideas. This time he wanted to implement some ideas himself. Some money he thought he had planned to invest in the space complex could be used to solve this problem. For that he first needed to update his draft somewhat. He removed some difficult to implement portions and streamlined others. His idea was to use an advanced form of filter to sequester zinc and other harmful substances from polluted water and make it safe for drinking directly without heating. This process required input energy in the form of

heat. Lasin saw heating as a problem because heating leads to increased energy flow. Energy in his view should always be handled in a micro manner that has no large amount of randomness induced inside the system. Heating didn't allow for that. Heating as a process itself increased randomness exponentially provided sufficient energy flowed into the system. Lasin saw this as a big problem. He almost scrapped the entire plan to think of a better one. Later he came up with a form of induction heating that heated only the part of water that had the highest concentration of zinc and other harmful substances so that they could be readily reduced for extraction. He wanted to patent it although not having the idea how to do it. After collecting sufficient documents, he went to the metropolitan office of Kathmandu where he didn't find a clue either. After some research, he found out that Nepal historically never required patenting services because the intellectuals almost always left the country or belonged to the ruling class who didn't see the point of patents for general citizens. After the bloody revolution led by Maoist movement, the government came into some form of peace with the citizens but the citizens still suffered the limitations of the previous generations such as not getting access to safe drinking water, not having good access to education, not enjoying basic amenities the rich countries took for granted. Patenting was one of those administrative functions that never got a hold in Nepal. The constitution that came very late didn't introduce any concrete form of patent protection rights. That was one of the reasons intellectuals still left the country in search of better opportunities. Lasin thought the bureaucratic government was too kafkaesque to try to persuade to do anything. He decided to form a holding company and register it under his name. This would at least give him private company rights to do anything he pleased.

The next day he and his friend Niban registered a company named Ytiralugnis. Ytiralugnis was the all encompassing company that would do everything Lasin and Niban together thought of. Ytiralugnis according to Niban should specialize in space technologies foremost and then use those technologies to build products that would then trickle down the society. Lasin was finally ecstatic to do something useful. He remained awake the whole night that day and made several drafts of what would be their first product. A highly advanced water purification machine running at the energy of a matchstick burning for 10 liters of purified drinkable water. This would surely prove successful in the market. Since the company right then was just a name and nothing more, they didn't have any plans on how to go about manufacturing the machine. Lasin thought of a traditional idea. He would order the parts through chinese manufacturers specializing in several independent technology manufacturing like PCBs, condensers, portable ring induction

heaters, plastic molds, pipes, tanks and everything else. Independently ordering all the parts could prove too messy so they decided they would give the entire draft of the machine to third party chinese companies through licensing scheme and rebuy the machine at 145% of the manufacturing cost. This would allow them to price the machine at 200% of the manufacturing cost thereby turning a profit of 55% minus the transportation cost per purifier sold. This turned out to be a little more than difficult in practice but they somehow were able to talk one company into taking the license for 10 years at minimal fees without any loopholes. This convinced them and they were producing 10 units every week starting the next month. Transporting the product was costing them more money than seemed reasonable. Since Nepal didn't trade with China in any extensive manner, the transportation infrastructure was absent for large car sized purification machines. So they had to improvise by disassembling the purification units into two to three smaller parts and reassembling them once their destination had been reached. This entire project which lasted for about 8 to 9 months gave them huge motivation for continuing their endeavors at the company and doing good for the society.

Alamak who was a famous media personality and journalist in the Kathmandu valley wanted to interview the founders of a company that was going viral on social media and everyone was talking about. He wanted to get the inside perspective on what the visionaries that founded this company thought. He was somewhat blown away by the versatility and robustness of their first product which was nothing more than a water purification machine in its description but then performed magic once connected to the grid. Seemingly out of electricity it could take black residue out of Bagmati's dirty polluted water and turn it into the most clean looking mineral water on the planet. What seemed like magic was nothing but a complicated procedure that Lasin, one of the company's founders, himself drafted in the middle of a restless night. Netizens also known as internet addicts, posted videos of the machine working in their community and providing every house with virtually cost free safe drinking water right out of their nearby rivers which were extremely polluted. Alamak, working in the technology field for more than 20 years, never thought such a day would come. A home grown company making a product that everybody needed not just in Nepal but in other countries but then none of the big first world countries had ever done before. It was a similar case with Ruit who made the cheapest eye lenses that could be surgically inserted into blind people's eyes making them able to see again. Alamak interviewed Ruit once and was blown away by his humbleness and intelligence. He thought he peaked his interviewing career with that but he came to find out he was wrong. Lasin heard a knock on the door. Expecting it

to be the interviewer who called him 3 hours ago asking for an interview, he swiftly checked himself in the mirror and went to greet the reporter. Alamak couldn't hold his gaze. He was shaking a little bit. He never thought intellectuals capable of doing extraordinary stuff were still in Nepal. Lasin's brilliant personality reflected through his eyes and teeth. Alamak entered the house on Lasin's request. Alamak started,

"Sir, it's an honor."
"Call me Lasin please. Pleased to meet you."
"Thankyou for having us. Please introduce yourself and your company."
"So yeah, my name is Lasin and I was born in Lafyang, Khotang district. My early childhood went like any other kid in a rural village. I completed my studies till SEE form Khotang and did my plus two in Kathmandu. I got my technical bachelor's degree from MilkyWay space agency. I met my partner Niban there. Niban was also interested in space and technology like me. So it only seemed right for us to partner together and establish a company where we would do what we aspired to do together since we met. We wanted to build the first space center of Nepal that would provide launch facilities to orbital tracking with large radio antenna dishes at much lower cost than what is usual. This is still to be done as of now. But right now, we are making some societal contributions by building products like advanced purifiers and water pumps that consume a fraction of the electricity the normal ones consume. And as far as I can tell we have been well received judging by our sales and customers' reaction."
"You see, in Nepal, it is very difficult to come up with an original product that can sell well. What you and Niban have done is truly revolutionary. If I were to guess where the product was made without knowing it then I would surely guess China or the US. But Nepal? Come on man! It's truly astonishing."
"Well, ironically the product is made in China but the design and specifications are completely ours."
"I get it. So you mentioned the space center. How come you guys are planning to build a space center in Nepal? It's something only rich countries have been able to do. Not even Japan has one right now."
"So in the past it was so. Only rich first world countries that had solid economic backend were able to build space launch centers. Suddenly, after the space shuttle was discontinued during the Obama administration, private companies started to take over in the space sector in the US. After those companies started to innovate and push the boundaries of what was thought possible, the sector saw a huge growth in this field. These technologies, although breathtaking at the time, are now common in every company. What

we are trying to do is just to take advantage of this massive manufacturing behemoth that has been set loose by the previous giants to produce our own home grown rockets that will launch from our own centers all across Nepal so that we can rapidly expand our presence in space."
"Who set loose the behemoth free?"
"Previous giant companies like Spacex and Rocketlab who let go of their patents and manufacturing hubs like China are taking full advantage of that right now. China has its own fully reusable rocket that is competitive with spacex's starship and is also competing with India's Garuda rocket. China and India aren't necessarily first world countries but they have proven that space is open for everybody and is going to remain open for everybody who wants to go there. Indonesia, Vietnam and even Bangladesh have showcased their prototype rocket designs ready for their demonstration flight within the next five years. We as a small hilly county should ride on this wave and must not remain behind. For it is our future generation that is going to benefit from it the most. Like we despise our previous generation for letting our country go to ruins, we cannot let that be the case for the next generation. They must be proud to have been born in this country."
"Sir, I am honored you took this to talk to me. I wish you and the company all the best."
"Thank you! It was awesome."

Lasin ordered one of the helper staff who was in his house to make some lunch. Alamak was very happy to spend some more precious moments with Lasin. He got to talk about more stuff off camera while eating. He left after 3 hours after gaining all the inside perspective he initially wanted to do the interview for. Lasin was also delighted to share his past experiences more openly and without worrying about the company's obligations. That night Lasin invited Niban to his house and planned further expansion of their product base to include air purifiers, induction cooktops, efficient generators, air conditioners, vacuum cleaners and others. The company was now firing all its engines, hiring almost 90% of MilkyWay's undergrads and providing lots of internship opportunities for other university students. A week later, Lasin got a call from the mayor of Butwal asking for 10 units of the purifier. Lasin, although hesitant at first due to high demands from other municipalities, agreed and sent +10 orders notice from his phone to the company manufacturing in China.

5

‘You dream of what you desire the most,’ this thought occupied Lasin like a worm. One day, after finishing his university assignment, he took out his VR goggles and got immersed in a virtual reality game. During his sleep that night, he dreamed about actually living in that virtual reality. So the next day, he strapped two tiny motors onto his controllers and connected them to the game’s API. This allowed him to control the motors with the game’s assets and experience things like bow string tightening, horse riding and other fantasy elements like he was almost there. This brought a vision inside him, the future of this world may be fully virtual. One day, actual true abundance might be achieved. All this through the application of virtual simulation. In virtual simulation, there was no real worth to anything. Everything was just electrons moving around inside a chip. Whether it be a billion dollar cruise ship or a 500 rupees burger, they both amounted to the same value physically or outside the virtual simulation. Remotest parts of the globe where poverty took the fun out of people’s lives, plunging them into utter misery, shoving aside all basic amenities one wanted, constantly torturing the mind, not allowing mental, physical, emotional freedom the human body desired, making them feel like living in hell, all this would finally be eliminated and people would finally be set free. Set free forever from the original reality that crippled their soul by transferring into the virtual reality where absolute abundance, abundance without limits was possible. This could be the greatest invention in humanity’s history, he thought. Lifting people from hell.

Lasin woke with a lazy feeling. He immediately went to the kitchen to fetch a coffee. This time, the coffee was just perfect. He sipped it while looking through the weekly company financial reports. 14 purifiers, 55 motor pumps produced this week. Total sales: 14*(Rs 1,20,000) + 55*(Rs 15,000) = Rs 25,05,000. Total profit: 47.5% of total sales = 11,77,350. Lasin seemed happy with the reports. He called Niban and asked him to focus on more efficiency in the purifier’s condenser mechanism since it, according to Lasin, was taking more than necessary for a condenser.

Chisisi Mostafa was the ambassador of Egypt to Nepal. He was in Egypt at the time of Lasin and Niban founding their drinking water purification company. In Egypt, children had to drink unsafe water mixing directly with the sewer originating from villages. This caused periodic waves of diarrhea epidemic which took many lives every few months. This was a big problem which hadn’t been solved by the Egyptian government. Chisisi was taken aback when he saw the massive flooding of the Nepalese market by a very advanced water purification machine that could seemingly transform dirty diseases ridden water to very clean drinking water. It even added minerals essential to the

human body right inside the machine itself. According to Chisisi this could elevate if not eradicate the crisis Egypt was facing regarding unsafe drinking water. Chisisi decided to talk to the CEO of the company, Lasin inorder to transport 4,500 of the purification machines to Egypt fully funded by the Egyptian government. The Egyptian government in the past spent hundreds of millions if not billions of dollars trying to fix the drinking water problem but until now, it remained as big a problem as it was at the start 20 years ago. Chisisi had already made talks with Egypt's government to pay a 60% premium per unit for the purifier. Chisisi told Lasin that the premium would be viable if the machines were transported within 2 years. Lasin was delighted to hear the news, but currently the peak production rate was less than 16 per week. At that rate it would take decades to fulfill the demand. Lasin was not going to let the deal slip away like this. The deal could finance the space endeavors of the company at least for a year. Lasin holded a meeting at his company. Every high level executive was present at the company, from China and Nepal. The agenda of the meeting was to do a massive technology transfer for China to Nepal to establish a large-scale manufacturing plant of equal proportion to that of China’s in Nepal’s Bharatpur district. Lasin chose Bharatpur because from a societal standpoint Bharatpur was a little more organized than other districts of Nepal. The mayor of Bharatpur was a female who was the daughter of the leader of the maoist movement. She was reelected for her amazing performance at her first term. Since Bharatpur was connected to India, all existing trade routes if incase necessary would suffice for transportation of purifiers from Nepal to neighboring regions of India. Since India also had some problems regarding safe drinking water, the product of Ytiralugnis could come in useful there. Technology transfer from China to Nepal was always dreamed about by Nepali politicians but it could never be a reality in the past. Main hurdle preventing this from happening was the virtually non existent supply chain of essential parts vital for manufacturing in Nepal. Since Nepal didn’t have an existing supply chain, further expansion needed for more advanced product manufacturing was never on the roadmap. Furthermore, Nepal didn’t have the political stability needed for such large scale endeavors in the past. Technological transfer in the past had been a major thing between large nations like the US and UK who collaborated with each other to defeat the Germans. Now, in a capitalist economy like any other, any country can join the global economic engine to gain upper hand in producing improved technology. The meeting ended with an agreement between the two parties representing the Nepal and China portion of the company’s collaboration. Now the only path for the company was forward. This deal had a long time coming. Signs of such a deal taking place between Nepal and China were expected

long before but due to the Nepali side representing a fraction of the potential of the Chinese side, the collaboration almost always proved unprofitable for the Chinese side. This caused the Chinese to not show any interest in making such a big investment in Nepal even though it would've massively strengthened the diplomatic relation between the neighbors. It was the same with India, India even cared to put blockades between Indo-Nepalese border to influence the election in Nepal. Nepal up until then was a mouse trapped between two hungry cats. It was never able to steer its destiny. It was used more as a diplomatic gun by one border nation against another than a friend. If Nepal advanced its space capabilities, it sure seemed like a great time for the future Nepalese generation. Lasin went straight back to his home after the meeting. He didn't have time for a partner which he felt constantly missing everyday. Maybe it was the fact that he lived away from his parents or his parents were uncaring. For any reason possible, he felt lonely sometimes and longed for someone. Niban sometimes came to his house and talked with him but the talk mostly focused on business and their company. A girl was really necessary for Lasin it seemed. Niban, as it turned out, had a sweet girlfriend about whom he kept hidden from Lasin. Lasin found out about this from one of his executives at the office. He kinda felt betrayed that his closest friend kept such secrets from him. But if destiny had its way then surely one day Lasin would find a girl of his dreams, even just in a dream. He never had a feeling for any girls in the past. Maybe it was his psychological upbringing, but he always found himself slipping away when he tried to talk with any girl. He cooked some rice for carbs, veggies for fiber and little meat as protein. The meal turned out to be tasty but he was alone so he couldn't share the feeling. He worked on some schematics for the new building that was going to be constructed in the upcoming months for housing the manufacturing plant for purifiers.

Niban called Lasin early in the morning the next day to come to the office early for some urgent discussion relating to hiring. The newly constructed plant required massive hiring for positions such as financial officer, China correspondent, senior executives, technical staff like software engineers, supply chain expert, QA officer and managerial positions throughout the company's portfolio. The same day a girl from MilkyWay sent an application to the company looking for a job as supply chain expert. The position offered two seats but if a qualified person was in its role then he/she would suffice. The girl's CV looked great and all so the hiring department of Ytiralugnis called her for an interview the next day. Her name was Akitir. She took a logistics and equipment management course as her specialization at MilkyWay. Her tone of speaking and presentation along with her aptitude for seeing details in

interviewers' questions made her an easy hire. Lasin as the CEO personally signed her company invitation and hired her the same day. Akitir was to take more than just supply chain duties during her first few months at the company. She personally had to handle the China-Nepal technology transfer that had been seen by the Nepali government as the biggest mutual agreement in their diplomatic history. The deal carried a huge potential for the Nepalese people and the government. Nepal quite possibly could be able to ride on the back of China's 30 year miracle growth just by signing a deal between two companies overseen by the governments of Nepal, China and Egypt.

6

In the following months nothing as interesting as the signing of the deal happened but the work was moving forward at astonishing pace. The Chinese company previously manufacturing the purifiers by gathering the parts from the local supply chain had begun to assemble sample purifiers right inside the factory located in Bharatpur. The factory was churning out 1 purifier every 3 days which was quite behind the peak output of 33 units from the Chinese counterpart but progress was progress nonetheless. It was necessary to keep this pace going ahead otherwise the structure kept in place would wither away into dust if the wheels didn't turn fast enough. So Lasin along with senior supply chain expert Akitir, there had been one more supply chain manager added in the company after Akitir, were constantly looking after the steady pace of parts coming in from China while simultaneously overseeing the factory's output rate and not letting it fall below a threshold that was quite aggressive for a newly inaugurated factory. This impressive and very hardcore managerial style of Akitir was been criticized by the workers but she kept her style nonetheless. Lasin was quite impressed by the woman. Her strict nature was moving the company forward and he was all for the company moving forward.

Just like the roadmap by Akitir had laid out, the newly inaugurated company was beginning to produce 4 units per week by the end of the third month. Niban was working with the vice president of the company to increase ties with the Nepali government at the provincial level to supply more purifiers at a higher rate. This Niban had thought would allow for the financial growth of the company without relying too much on exports to Egypt which was proving too costly regarding transportation. Never had Nepal done massive trade with African countries so it was a very new thing for the relatively new government to handle. Policy bills were constantly passed at the federal level to control and manage the trading. Niban was radiating nervous energy at work since his actions had such a huge impact on the literal future of the country. Nepal was quite probably leaping into the . In the coming months, the company was seeing growth no other company in the world had seen before, the company was now employing more than 10,000 workers at all levels of positions ranging from conveyor belt department to robotic assembly department. The company was now producing products ranging from children tiffin boxes to rice cookers, induction cooktop, water heaters, air conditioner, water pump, car carburetors, silencer pipes for motorbikes and was even in the talks to license honda's bike engine schematic to develop and manufacture 200 cc engines in Nepal. This was an unheard rate of growth for any company in the history of humanity. Samsung, Tata, Apple and even Tesla, none had come close to

achieving this scale of industrialization at such a short period of time. All within a year, Ytiralugnis went from being a trademark to manufacturing most of the Nepali households' machines and selling at a much affordable cost than rival India, China was still providing value tho but sooner or later the Nepali government would increase the import tax thereby rendering all import trade from China useless. That was a long time prospect tho. China was still by far the most impressive manufacturer when it came to highly sophisticated products such as laptops, cameras, phones etc. And quite frankly, Nepal was not expected by anybody to increase import tax on those essential products it was far from producing locally. Still there had been a big change, once Ytiralugnis products flooded the Nepali markets. People began showing their inner patriotic desire however much they hated the country before by buying only the products manufactured by Ytiralugnis and ignoring their Chinese counterparts. This was the case with tiffin boxes to rice cookers. Everything Ytiralugnis was able to produce, people preferred them over foreign made ones.

Lasin was very happy with the progress the company was making within 2 years of inception. Apart from that, Lasin was lucky to have a great executive team capable of handling all sorts of problems the company faced during its arduous first year. Akitir was the company's best hire till date and it had hired lots after her. She was one of the first hires and turned out to be the most valuable human asset of the company. The supply chain handling was the most difficult and demanding job in the entire company and Akitir handled it perfectly. Now the parts required for manufacturing were continuously arriving from China and virtually all problems in the supply chain were fixed. Nepal was even in talks with China regarding the construction of a cargo railway line joining Shenzhen to Bharatpur. This would act like a major vein connecting the two countries like a blood vein connecting different parts of the human body. Since all was moving forwards nicely, it was time for Lasin to focus on his big goal, construction of a space launch complex. The daunting task of constructing and financing a massive endeavor like this that seemed impossible before now seemed quite an easy task. It was December again. The cold morning breeze that flowed from Lasin's windows chilled his skin again causing the hairs on them to jerk and straighten sharply. The feeling was the same as last time, something had to be done. Something to change the face of the country. Make something deemed impossible happen and happen right in his hand. He was the CEO of the world's 8th largest manufacturing company, calculated by product categories in several categories. He was not complacent. He always got that little push that pushed him no matter how near he stood to the edge. The cliff if it had to take him

would take him, but he needed to check. Would the cliff instead turn upside down and face him like a mountainous obstacle to climb or suck him in its darkest depth like a blackhole never losing grip on his mind sending him into eternal limbo. He had to check. Now was the time, now or never. Make a space center and hand it over to the future generation of his country. The possibility of children being able to witness fiery rockets climbing into the vast expanse of space representing endless possibilities was too hard to ignore for him. He, as a child, wished he had been born into a later generation, to have been able to witness the future with his own eyes instead of the yet unseeded micro DNA in his genome, but at least he could do it even if his ancestors didn't care to. He would change the lives of his children, he would give them hope, make the tales of dragon climbing skies in their story books a reality they would be able to see using highly advanced technology, the ones a person picked from the middle ages would be unable to distinguish from literal magic and remain slack jawed with water drooling from his mouth. This was the promise of technology he thought. A possibility, nothing else, a possibility to conjure arcane forms of magic and control it instead of letting it loose, controlling to benefit all who were alive, not just the conjurer with his selfish mind. A culture shifting phenomenon that came once in a hundred thousand years in the history of a civilization, he had the possibility to do it even just a 1% chance. That chance was too far-reaching to ignore.

Lasin had not gone on a long vacation like he used to go on during his college years. The thrill was pulling him so he decided to take the top executive team at his company on a long vacation to Europe. Europe had a long and ancient history that brought almost all of the modern civilization into existence. The popular phrase 'Western Culture' derived itself from the extraordinary shift in the western populous' mind that led to the renaissance and democratic reforms throughout the land. The trip had been planned to include a ship cruise from Norway to Denmark and stay in Copenhagen, the city that gave its namesake to an interpretation of the quantum mechanical wave function collapse. Ytiralugnis had a quantum mechanics department that specialized in researching the future of the company in the field of quantum computing. They arrived at Copenhagen after a long cruise from Norway, the sights they saw during their travels made them connect with the beauty of nature rather than its horrors. Nature itself may not have been fully responsible for the horrors it mindlessly created by creating minds. The minds in the ship were now looking back at nature admiring it for its beauty but Lasin wanted the crew to see the both sides of nature, how nature was able to create hell without intending to. This was always the problem with evolutionary design. A random design may not produce anything quantitative but then

randomness got removed and further and further complexity became introduced in the design which led to the creation of unexpected things. In the case of the universe, it was the atoms coalescing to form molecules. They could've stopped at that point but due to selection operating at some level caused molecules that didn't coalesce to form bigger substances to get eliminated leading to the further chain reasoning of atoms coalescing to form molecules coalescing to form substances coalescing to form rocks giving rise to density giving rise to pressure giving rise to heat giving rise to fusion giving rise to energy giving rise to Krebs cycle giving rise to cells which then combine with other cells to form more complex cells giving rise to multi cells and then parallelly in an alternate space, the Krebs cycle reversed taking advantage of photon, H2-O and C-O2 instead of C-H molecules thereby giving rise to oxygenic photosynthesis giving rise to plants making food for plant eaters which became food for meat eaters turning the entire prospect of energy sequestration into a vicious tormenting cycle with the introduction of brains and consciousness. If it was not for consciousness, the nature's beauty would remain hidden but so would the torment every plant eater faced from meat eaters. Lasin saw the terrifying dichotomy in nature's situation very clearly. He thought it extended to much bigger things, things like the entire universe. Universes eating universes might be a reality he suspected. If it was not for anybody to stop anything bad happening, then surely the thing must happen no matter how wrong it would feel to a petty conscious being evolved by randomness itself to see the non random element of itself discarding infinite senses and selecting for a handful because to much would reintroduce the meaninglessness of randomness. Randomness too dangerous, randomness too powerful, randomness too damaging to the fragile non random bubble bubbling out of a sea of infinite jitter vibrating to nothing, vibrating for nothing, executing a seemingly endless dance to the god of nothing, appeasing to no one, not even knowing it existed, true randomness, true unimaginable hell, unknowable to the limited senses of a petty meat creature coming out it, to do nothing, to die in an extinction, and if not extinction then sometime in the future, for surely the randomness would clutch them since they themselves owed their existence to it, if not even the universe was certain of itself, succumbing to the utter randomness of it all, then how could petty meat creatures arising from within this hell?

Lasin experienced these emotions whenever he saw the scintillating waves of water, rocking movement of tree branches, and the sky itself. It represented no bound no matter how far anybody went. These emotions he thought aroused from the molecules vibrating in his brain to nothing, to no order. To Lasin, order was everything. He was handling a mega corporation that was

single handedly carrying an entire country on its back. To let go of order, to let go of himself to these molecules adhering to different realm of laws, laws he didn’t understand was not an option. He would suppress these feelings every time they arose but today, today was different, he was seeing nature's beauty on the external surface but inside it, he always saw those molecules with no feelings vibrating, dancing the eternal dance of randomness. Lasin feared randomness immensely. He as a business man wanted to hold the future in his hands, predict every major turn of events, predict every major hurdles his company would face, but he was afraid, afraid in the inside, on the outside, a layer of predictability, but in the inside, the same sea of molecules dancing that eternal dance. The next stop was Scotland. Scottish beauty and the culture there was irreplaceable. The trip ended with a great sightseeing tour of the Scottish train journey. They saw humanity on that train ride, they saw the culmination of it, they saw the entire human culture.

7

The quantum mechanics department of the company was focused on developing solutions to the decoherence problem. In quantum computing, the major problem faced by companies at that time was the instability of quantum molecules preventing them from executing instructions like a classical computer. This problem was preventing the major quantum labs at that time to develop a versatile quantum computer able to compete with the classical computers. Niban had an idea, instead of figuring out the decoherent states and eliminating them one by one by modifying the circuit, the model of the chip could be fed into a neural network that would then optimize for eliminating such decoherences through reinforcement learning with the application of Hebbian networks. Doing this successfully would mean producing a design for a quantum computer that would not suffer from the previous anomalies preventing new breakthroughs in the field. This was a genius idea because the advancements made in quantum computers made by machine learning would also allow for better training of machine learning models using the quantum computer itself. Since neural networks are black box machines i.e the details regarding the intermediate states of training are unnecessary for the final product, quantum superposition would greatly speed up the training process. Breakthroughs on top of breakthroughs would be possible by this. Niban purchased a ticket to Australia, administered a visa within an hour and flew to meet the current greatest quantum computing expert, Noah Richardson. Richardson had developed a method for isolating two qubits in perfect superposition allowing for faster computing than classical bits. This was not enough though, quantum computing would amount to nothing if only two qubits were used. To greatly exceed performance of classical supercomputers, at least a 1000 qubits minimum were necessary. Niban went to IBM's headquarters in the US to discuss their latest quantum chip. The state of the art chip featured 78 perfectly entangled qubits allowing for 2^78 simultaneous operations per quantum information exchange. The information exchange part was vital, if the states of the qubits were observed nanoseconds earlier than the end computation, the entire computation would be ruined due to quantum information traveling back in time and disrupting the superposition. This peculiar time traveling phenomena was caused by the delayed choice quantum eraser effect. Niban hoped this problem would be solved by the time Ytiralugnis started to take contracts for building quantum computers. Since it seemed so far away, he hoped giants like IBM and Google would come up with some solution, but the lackluster progress in the field made him doubt the possibility of the problem ever being solved. He was not losing hope though. He met with researchers at IBM's quantum computing

department and talked with the researchers there about the problems they were facing. The main problem in all of the researchers' minds was the scaling of qubits without exponentially increasing power draw for keeping the qubits just above absolute zero temperature. This heat management complication was stalling the progress in the field for nearly two decades. It was finally time to do something about this issue, Niban thought. Niban booked a ticket and travelled to England to meet with the Deepmind team. Deepmind was the leading AI research company specializing in creating advanced solutions to solve life long problems in the field of science and medicine by utilizing the immense potential of neural networks. If it was anywhere Niban thought of finding the solution, it was Deepmind. He met with Deepmind's CEO Simed Sibassah and chatted for over an hour discussing the yet not demonstrated ability of AI to be useful in the field of quantum computing. Simed thought it was a difficult problem compared to say protein folding due to the overall immaturity of the field. The idea of harnessing the weird nature of quantum mechanics to vastly speed up computing was a recently conceived idea and its potential hadn't been definitively proven.

"Do you think you can do anything to change that? What about utilizing the latest in AI to solve the lingering problem in the latest of computing? Do you consider it to be possible?" Niban told Simed.
Simed looked back at his eyes and said, "Well nothing should be considered impossible but you know the issue in figuring out the solution to the heat management problem using AI is the inexperienced ness of the field regarding the design of physical systems. I mean AI is definitely used nowadays to design physical systems, even microscopic ones like proteins but we have no idea of how to transfer that to designing entire integrated systems even as complex as a normal computer forget quantum. There are many parts and they all need to 'talk' to each other perfectly. How do we even model such a thing in a neural network? Neural networks require a huge amount of data to work, that's how they make predictions and build a comprehensive model of the data they are feeded. The issue with designing better quantum computers using AI is that there is virtually no data whatsoever about making better quantum computers because we haven't yet made one. AI cannot design things that don't exist, it learns from things already existing to make more such things. I think your problem is unsolvable with our current state of the art."

That was enough, Niban understood that Deepmind had nothing to give on the matter. He thought Deepmind was nearing the design of a general purpose AI capable of surpassing the human mind in intelligence. With that

amplified intelligence, the AI would have solved the lingering problem in quantum computing. But he was wrong, Deepmind was nowhere near the cusp of that AI breakthrough. He lost hope in others. He needed to do it himself! The next day after returning back to Nepal, Niban broke up the quantum mechanics department of the company into two parts, the AI research department with 70 percent of the original staff and the quantum research department with the remaining 30 percent. One of the original member of the quantum mechanics department came to Niban at his office and said,

“Sir, why did you take such an action. What are you thinking of? Aren’t we supposed to focus on quantum computers? Why are we now dividing our staff into two departments? Won’t this splitting hamper our goals?”

“No, of course not. The reason I did that was to focus our company on some more near term business prospects like the creation of advanced AI instead of diverting too much funds towards longer term plans. The executive team doesn’t think quantum computers are going to happen within the next 20 years so this seemed like a little too big of an investment for our company. Splitting the department and diverting the majority of staff towards the new AI department will help our company to really push towards its newly proposed ambition of creating general AI within the next 10 years.” Niban replied back.

“Do we have an AI ambition now? What product are we going to create with it? Robots?”

“No, not robots. We haven’t discussed that yet. Something more on the line of a better and more efficient version of the products we already produce. “

“Why do we need to care about efficiency so much? Does it help in obtaining more profit?

“Of course it does, why else would we invest so much money into AI for building better products if it doesn’t profit us? The thing is by efficient I mean efficient for us to produce, recycle as well as transport. Wouldn’t it be so much better to reduce the footprint of our state of the art purifiers from the size of a car to something that could fit in a table? The price would remain unchanged but the profit for us and the convenience for our customers would increase. Just think of it as we are no more adding an AI department to our company to make robots than we are using robotic assembly lines to make new products. We are just trying to think long term and AI is necessary for that. ”

“I don’t know but AI seems like such a money sucking venture. It doesn’t really suit us. Google yeah since they are a software company but us? We are consumer household goods manufacturers, it doesn’t really fit together.”

“Nah, don’t worry, we are expanding our business. Soon we will make rockets!”

Lasin was busy along with Akitir handling the supply chain issues that recently propped up due to sudden landslides at the mountainous region disrupting the transportation of goods. The problem wasn't severe but it might turn sideways. Akitir dispatched a team to the site to investigate the extent of damage the landslide had caused to the roads. While waiting for communication several hours later, it was found that the road collapsed under the weight of soil thereby jamming the route. Akitir was frustrated, she punched her desk with a loud thud and turned towards Lasin.
"How come we overlooked this?" she grunted.
"Overlook what?" he replied.
"It's monsoon in Nepal, the soil in the hilly regions is buckling under the strain. Landslides were predictable in such conditions, yet we did nothing to prevent this mess with hindsight."
"We didn't have the hindsight dear." Lasin was addressing Akitir with more and more intimate words since he was more comfortable with her now, he liked her and she liked him too, "We couldn't predict a landslide. It's completely random."
"Oh, really? I thought you had this stunning ability to predict problems our company would face in the future and prevent them with no harm done."
"No, sweetheart. You are getting this wrong. I am just predicting the reaction of the free market upon us releasing a new product. The fluctuation of prices and its implication to the economy. I am good at economics like my father, not at predicting natural disasters."
"Look, I don't want to talk to you about your talents right now. I am getting really concerned about this monsoon. It's more vigorous than last year. It might cause even more problems later. We have no time." She turned towards the door and left hurryingly.

Lasin was at his desk when he received a phone call. It was from Chisisi. Africa was facing one of the worst droughts in history and water problems there were escalating. Ytiralugnis was making very powerful water pumps that operated at much low electricity and could pump water to more than a 100 miles. Chisisi knew this and thought he could use some pumps to pump water from the Nile river and provide it to the villages in Egypt. Chisisi was also equally fed up by the Egpytian government for its incompetence like Nepali citizens with Nepali government in the past. He spoke first, "Lasin, my man what's going on? How are you doing? Long time no see."
"It's all good, relatively speaking. Nepal is facing the wrath of monsoon, experiencing extensive flooding across lands and several hilly roads are

succumbing to landslides. Landslides are havocking the critical road infrastructure we were using for trade with China. Now, it's all almost stopped. Mud carried by water logging the factory gates, it's all a mess right caused by too much rainfall."
"You are experiencing problems due to too much rainfall while we are experiencing problems due to too little. It really is a strange world we live in. Why isn't there balance in nature? Right now, millions of Africans are thirsty for water and thousands are perishing daily. If we could provide only a drop of water for each mouth, the ones that are dying could live for another day."
"Really? Is the situation that bad? Nature can really kill both ways. I think its really upon us to balance the distribution of energy."
"You are correct. So I'm here asking the technology master for some solution. Will pumps fix the problem?"
"Rudimentary pumps would fix the problem, but there's an even better idea. Instead of using pumps to continuously supply water from the Nile, we can use loads of trucks to bring water to the necessary areas without building any pipeline infrastructures for pumping. This would solve the issue of time. Since we don't have much time for construction, we rather go ahead with my idea and discard the pumps."
"How would we go on like this indefinitely, surely you can't have trucks bringing water day in and day out."
"That's where the purifiers come in place. Purifiers will purify all the waste water coming from cooking, bathing, cleaning and recycle it for round too. We have the best purifiers in the world by a huge margin. It's what our company excels most at compared to others."
"Can those purifiers purify urine?"
"They can purify H2O out of anything, whether it be chemical sludges, feces, gas, anything. They rock!"
"Thank you, Lasin. It was a really insightful talk. I will urge the government to immediately dispatch the purifiers we have in stock as well as ask for water trucks to haul water from the Nile. It's surely going to work, I know."
"By the way, if you don't have enough purifiers left from our previous exchange, we can dispatch an airbus transporter carrying 200 units immediately. Do you need them?"
"It's fine I guess if you want to but we have almost all the purifiers left from our previous exchange. They were to be distributed to the South next week but after the drought, the North desert will be prioritized now."

They ended their call. Chisisi felt very happy with the solution Lasin offered. He admired Lasin's thinking style. It was more practical oriented than his

administrative friends' thinking. Egypt was going to bounce back from the calamity, Chisisi felt it in his heart.

8

From famine and death, higher animals were produced, now they might produce other forms of life, some in the same vein of biology but many beyond it, beyond the shackles of evolution, free to grow, not limited by hunger, no fear of predators, unwithering advancement stoppable only by the universe itself, but the universe didn't desire anything, only the minds of those higher animals desired anything at all, and they didn't stop since they were themselves forged into what they were by the ruthlessness of nature over eons.

Lasin woke up early that day. He was in a good mood. Maybe the day was bringing something new and unexpected and his brain was unconsciously preparing him for it by releasing secretions of hormones carefully tuned to give rise to continuous bliss in his mind. He prepared coffee, toasted some bread, took it out a little late this time for more crunchiness and sat down at his desk. Lasin was a sentimental guy. He cared about others and others also seemed to care about him. He was growing more and closer to Akitir. She stayed 3 kilometers far from him in Bhaktapur district. Her commute involved traveling by bus. Nearly all buses in Kathmandu had gone electric by that time. The mayor of Kathmandu did not advocate for a metro which he thought did not suit the distinct ancient woody style of the place. That was a bluff. Kathmandu although contained the word 'wood' in its title, the place itself was composed mainly of concrete and bricks. Some historical places still contained wooden structures especially in Bhaktapur where Akitir lived but in other places, it was like any other city. The mayor wanted the city layout to follow a grid system but the public hadn't agreed for their houses to be demolished for free. Incorporating a grid system on top of a land was relatively easy and straightforward were it not for the expensive houses built on top of it. By translating a plot of land where roads were curvy, houses built randomly, into another layout without losing the homomorphism, a mathematical term used to describe one to one mapping of points from one set to another set, it was possible to completely transform the random layout of Kathmandu to a perfect grid. The problem arose when the houses were priced at much higher, the reason being the economic condition of Nepal than the market price reasonable for developers to buy out in order to resell them in bulk to their original owners at a 14% premium. This didn't happen and Kathmandu had remained the same since the last 100 years, an unorganized mess of one traffic cutting in front of another, mixing public and private real estate, businesses running on parking lots etc. It seemed unfixable until Lasin spoke to the mayor a month before where he outlined exactly what radical thing needed to be done to transform Kathmandu's city into something like New

York's perfect grid. The idea again was to use technology and one that was unheard of before. Each house that was out of alignment to the translated grid layout by more than 76%, 76 because it matched computer simulations regarding cost and efficiency, was to be marked as needing unearthing. The houses that fell below 76% alignment ratio with the grid were marked as needing gyration. Unearthing and gyration both combined would transport and place each house of Kathmandu that was structurally strong in the exact spot on the new grid. The mayor started to speak,
“Gyrating? Unearthing? What is unearthing? Digging a hole of some kind?”
“Unearthing means cutting around the perimeter of the house up to the depth of its foundation in order for the house to be hoisted upwards by crane for transportation. Gyrating simply means not digging to the depth of the entire foundation but sufficiently close to extrude its sides so that the house itself could be rotated to align with the grid.”
“Why haven’t I heard these terms till now? I’m a civil engineer god damn it!”
“It’s because these methods were never used in practice, so no need to teach engineers something that was unnecessary.”
“So you want to use these obscure methods no one has ever tried before to remodel Kathmandu literally from the ground up. If let’s say we agreed to do this, what are the failure cases? The biggest point of failure would be houses being too old to withstand the strain exerted by the crane during lifting. It would mean the house crumbling structurally and making it unsafe for living. But with utmost precaution and careful inspection beforehand, we can eliminate the houses found too fragile for unearthing.”
“Wow, okay. If you are the one saying it’s possible than who am I to say no. You are literally planning on launching a 30 storey size rocket from Nepal into space soon. What was the name of that rocket again?”
“It’s called Eon, previously it was called Epoch but I didn’t really like it so I changed it to Eon. It also acts as an homage to Elon for changing the space industry for private companies.”
“I think we can collaborate on your grand visions, Lasin, from reshaping Kathmandu to launching rockets. It's really great for the country that it has people like you. We don’t really deserve individuals like you to be honest. The politicians apart from young ones have been ruining our country from the beginning.”

The two left each other after some time. The reaction of the mayor certainly gave Lasin some hope regarding the situation of housing in Kathmandu. Now, he was only left to do the things he promised. The company’s hands on webinar meeting of the third trimester with international organization was

about to be conducted. Lasin made some detailed proposals to Krupiński Cranes company of Poland asking for building new cranes that were able to lift objects matching the size and weight of Kathmandu's houses. Krupiński Cranes was the leading crane manufacturer of Poland. Ytiralugnis had good cooperation with Poland through their cooperation in alleviating the smog problem Poland was facing 6 months ago. The plan was to send the design and specifications of the cranes to Poland for directly manufacturing and transporting the parts of the disassembled cranes to Nepal. It would take a few months but Lasin could wait.

The AI research department was facing problems with accessing GPUs in the Azure cloud for training their models. They were asking if it was possible for Ytiralugnis to build a supercomputer to train their models in house without going through the hurdle of uploading their massive model sizes to Azure cloud. Nepal didn't yet have a high speed internet service of 1 gbps like other countries. Many houses in Kathmandu still used the slow and unresponsive cellular data for browsing the internet. The main internet traffic was social media. People in Nepal were addicted to scrolling down the endless social media feeds simply because it required no mind whatsoever. The most addicting forms of those social media, namely short video forms, were occupying the most traffic. Netflix and streaming services were non-existent in Nepal due to the barriers in international monetary payment. Lasin was also frustrated with the slow internet speeds, he wanted to do something about it. The month before he implemented point to point fiber connection directly from the company to India's leading internet service provider. But due to the nature of the internet, it was unreliable most of the time. He was thinking about laying underground internet wire and connecting Nepal to the sea. That got nowhere due to lots of bureaucratic hurdles involved in digging another country's land. During all this, the AI department was the one most affected by it. AI if done correctly could change the face of the company as well as the whole country but it required massive investments in time, money and talent. The talent part was the most lacking. If somehow Lasin and the executive team agreed with building their own inhouse supercomputer focusing on executing matrix operations in ultra fast speeds, the human resource involved in designing and building that would be massive. They would need to go on a massive hiring frenzy to acquire all the people from all the skill sets required in designing, building and testing the supercomputer. Nepal never had a supercomputer before so it would be the first in Nepal's history and first always came with challenges. Challenges that could take years to overcome. Lasin wasn't sure if the company was ready for such a massive project. It could even make them bankrupt if it flopped although that was very unlikely. The problem with AI was

that it required massive computational resources during training and virtually none in comparison during inferencing. This problem could be solved one day with the application of so called neuromorphic computing but that seemed far off. Right now Lasin had no choice but to fund and execute a large-scale supercomputer building effort in order to secure the company's future amid continuous market disruption due to new technologies being introduced through AI application daily.

Akitir was supposed to handle the crane transport from Poland to Nepal. It was a damn difficult job since Nepal had no access to sea and transporting such a massive machinery by air was impossible by contemporary airplanes. Lasin gave this job to her since she was great at accomplishing difficult jobs in an impressive manner. Lasin was sometimes surprised by her ability. The initial parts of the first of the massive cranes Krupinski was building on Lasin's order had begun to arrive two months after the agreement. They arrived by sea passing through the Suez canal and were offloaded onto the Kandla port in Gujarat, India. From there, there were two options. One was to transport the parts by train and the other was to use 18 wheeler trucks. The train method turned out to be difficult and arduous so Akitir decided to use trucks. The trucks that were to transport the crane in its entirety once transported rockets built by ISRO. They cost a lot more than expected but with nearly unlimited funds the company had through its massive revenue generation, it wasn't something Akitir had to worry about. 3 weeks and 2 days later, the first crane in its entirety had arrived at Sunauli. From there it entered Nepal. The longest duration of waiting was at the border due to customs and taxes procedure. The process took a long time and it was very tedious. After finally finishing the paperwork, the truck, an 18 wheeler one divided into three parts (front engine section, middle supporting section and end supporting section) began rolling on the Bhairahawa-Chauraha highway. The highway had been expanded into a 6 lane one in the past so it was relatively easy for the truck to pass by without obstructing much of the traffic. It wasn't the case after that though. The biggest problem Nepal faced with industrialization on a massive scale was the unreliable roads of the country. They didn't allow for big machines to pass safely and quickly. It was required to block entire sections of the Bardaghat hilly road to allow a single cement mixer to pass through. The fast tract that was being built by the government was expected to fix these issues but right now there was no other way but to do things the old difficult way. The truck started on the east west highway after taking a turn at the Chauraha roundabout arriving at the Bardaghat section shortly. There it faced immense difficulty in passing through the narrow winding roads. It caused a massive traffic jam for 19 hours. Even after making it through that section, the roads

ahead were even worse. The Butwal Narayanghat road was nowhere near completion and there were huge potholes covering every part of the road. The truck had to wait before each pothole and men had to cover up each and every pothole with concrete slabs and bricks to make it able to withstand the massive weight of the truck passing by. This madness continued all the way to Chitwan, Bharatpur where it arrived days later when in reality the distance was less than two hours by unobstructed travel. The company was located in Bharatpur and seeing the difficulty the transporter was facing, it offered a solution. Instead of using a long horizontal carrier, the crane could be folded on top of it and that would make it easier for the truck to pass by the mountainous roads. They did that, the crane was folded on itself and the rear section of the truck was removed. This made it much easier for the truck to take turns altho it became much slower due to the increase in the height of the center of gravity. It was a genius solution nonetheless. It took hours to do the fixing but took days away from the journey. The truck arrived at Kathmandu passing from the Naubise checkpoint and arriving at Thankot shortly after. There it faced other difficulties with regards to traffic since Kathmandu was much more populated than any other city the truck had to pass by. Anyways, the final destination of the crane was somewhere in the Kalanki region where there was a temporary land emptied for housing the crane until operation. The entire journey took more than 2 weeks after arriving at Sunauli border. The transportation part was finished at least for the first crane Krupinski had sent, now it only remained to do the near impossible, transporting houses.

Lasin was happy with how the crane was able to arrive at Kathmandu. He gave the props to Akitir. Lasin and Niban chartered a plane from Bharatpur and arrived at Kathmandu themselves. They entered the mayor's room at Kathmandu municipality office. The mayor welcomed and congratulated them on their accomplishment. The mayor spoke,

“So, you guys are capable of doing the impossible. I was quite surprised to see the massive crane lying on the empty field the other day. How much does one of those cost?”

“It cost us somewhere around 33 crores per unit.” Niban

“33 crores is a massive sum. It’s a lot of tax money.”

“Yeah it is.” Niban nodded

“It’s not the only one though. We are ordering 5 more. So make sure you get the financing right.” Lasin added.

“Don’t worry about financing.The budget has already been passed. We are ready for action now.” the mayor assured them.

“The people will like you even more if you are able to sort out the traffic problem with this.” Lasin said.

“I mean I hope it will be solved. Seeing how difficult the entire situation is here right now, I think I am the most stressed mayor in the whole world.”
“Don’t worry, the grid system is proven to solve traffic issues at least by a big margin if not completely.” Niban assured the mayor.
“So, preliminary work will begin tomorrow regarding the testing of the crane and also we will begin surveying houses beginning with your locality if you quickly give us the permit. We will summon the civil engineers from our company immediately after you are ready.” Lasin told the mayor.
“Yeah, sure. We got the administrative side of the project. You worry about testing the crane.” the mayor said, smiling.
“Sure, we are keeping our hopes on the good mayor.” Lasin finished.

They left the office and stayed at a hotel that night. The dark sky of the summer through with uncountable stars shone like little eyes gazing into earth, it felt as though they were alive and watching every step Lasin took to change his country’s face. They went to bed early at 8 o’clock. While they were sleeping in a deep slumber, the city was not. The mayor was furiously talking with local ward chiefs over the phone informing them of what was going to be done to their communities' houses in the coming months. On the other side of the city, in Kalanki, the mechanical and electrical engineers of Ytiralugnis were closely inspecting the crane checking for any defects it might have gotten during transportation. In Bharatpur, a meeting just concluded discussing the company’s part in the reshaping of Kathmandu. During the meeting, civil engineers were the primary focus. They had to do the inspection and survey of each and every house in Kathmandu city and do a feasibility study. They had to mark the houses that were ready for the unearthing and reconsider the remaining unmarked ones. After that, all the pistons would fire and the project would gain full speed. The slow part was at the beginning with surveying the houses and import of the remaining cranes carrying on simultaneously.

Lasin never felt this energetic in the morning. He was ready to roll. With all the blocks in place, he had to make sure there wasn’t any unexpected problem propping up at the later phase. He tried thinking of all the problems the project might face. He could find none. Niban also couldn’t think of any. They were complacent with their actions. Nothing to add, nothing to improve, at least for now. Lasin and Niban went to the restaurant downstairs and fetched some bread omelets for breakfast. They found it very delicious. After finishing their breakfast, they went back to their room, packed their things, called a taxi and went to the Tribhuvan airport. They were to go to Poland.

Kripinski’s headquarters was located in Wroclaw. Their CEO, Wojciech Budowski, a 32 year old mechanical engineer, founded the company in 1993.

Poland was occupied by the Soviet Union after 1940. The country had a large history. It was invaded by the Germans in 1939 which initiated the world war. Poland saw a massive economic boom after the establishment of the European Union. The massive industrial growth required the production of machines and factories. Metal industry was booming in Poland in the post war days. This led to the massive production of steel, cars, heavy duty vehicles etc. Kripinski inherited one of the steel factories of Poland which had been out of operation due to the original company facing financial problems. This cheap acquisition put Kripinski at an advantage.

Lasin and Niban arrived at Kripinski's headquarters to meet with its CEO. Wojciech arrived at the meeting room shortly after and started to talk,

"So, how do you like the crane we sent you?"

"It's pretty good. We are satisfied. We would like to continue with our deal." Lasin told Wojciech.

"That's nice to hear. You can see the remaining cranes in the production line right there. Two of them are scheduled to be finished this week." Wojciech added.

"Actually we are not worried about the schedule. We are here to discuss something much more important. We ordered those cranes not for some building construction. We ordered those cranes because we want to transport huge concrete houses using them. We have no experience doing that. We'd love it if you could help us." Lasin said.

"What? You ordered those cranes for lifting houses? I've never seen cranes doing that. Only seen rollers being used to move houses." Wojciech answered with a shocked face.

"We know about rollers but rollers won't help an iota in our case. The houses are stacked side by side like books in a library. No space to move them using rollers. We have to literally pluck them out of the sky and place them at the new place." Niban said with an explanative gesture.

"Alright alright, but then we have not done anything like that before, so what are we supposed to help you with?" Wojciech asked.

"You need to give us the best talent in your company until this project is finished." Lasin replied.

"A human resource transfer? But why would we do that?" Wojciech asked with a surprised face.

"Because we would give the credit of our accomplishment to you. Your stocks would sky rocket because of the press gathering around such a huge undertaking. You would make money and we would fix our city. Profit for both." Niban said smilingly.

“Look I can’t do that okay. I don’t care about stocks. I can’t give my Polish employees to you. They are my asset. Anything happens to them and I would be the one to blame.” Wojciech replied back.
“Look, we have the best employee security in our company. We will take care of your employees. Nothing will happen to them, rest assured.” Lasin told Wojciech.
“I need to discuss this with the board. Call me sometime later.” Wojciech said.

Lasin and Niban left the office and went to Warsaw, the capital of Poland. There they explored Polish culture. The architecture, language, food, rituals, traditions all were very new to them. They attended a museum to see artifacts from Poland. They ate delicious pierogi at a fast food restaurant. All in all, they loved Poland. They wanted their country too to become as rich as Poland in culture.

9

Akitir met with the new Polish friends who came back from Poland with Lasin and Niban. She found them to be taller, whiter and generally more handsome than Nepalese. She talked with one of them named Michal. Michal was a mechanical engineer and crane expert. He had extensive knowledge regarding rigging complex structures on crane ropes.

“The general procedure to lift a heavy object,” he explained to Akitir, “ is to use more than one crane. And again, the more the cranes, the harder the problem of rigging becomes. You have to continuously adjust the crane’s attachment points as the center of gravity shifts during the lifting of a dynamic object. You have to simultaneously adjust the heights of the multiple cranes and make sure none of the ropes snaps.” Akitir was fascinated by these insights. She never knew a simple task of operating a crane involved so much complexity.

The next several days, the 10 employees of Kripinski outlined the detailed procedure for digging, rigging, lifting, rotating and replacing the houses on the ground. All of this involved roughly a whole day for each house. They visited several locales and inspected the houses. They looked weak and earthquake prone. It was the case with the majority of the houses. Lifting them with a crane would surely impact their structure. But, nonetheless they verified the marking of the houses done by the civil engineers and gave the ok signal to begin the procedure. Now, it was time for some action.

The mayor of Kathmandu gave the permit of operation for 4 locales each of them consisting 10 to 16 houses, to Lasin. Lasin looked at the permits and thanked the mayor. He presented the permits to the company’s project manager. The work could begin as soon as the next month with the arrival of a second crane. Two cranes would be sufficient for lifting houses with relatively low weight.

The crane was attached and tested thoroughly. Its boom was raised and lowered, ropes extended and retracted and everything seemed to work perfectly. The second crane was expected to arrive next week. The lifting part was taken care of. Now the unearthing part was necessary to be looked upon. The dozers the municipality had would be enough for the digging, Lasin thought. If it was necessary for some more advanced JCBs and digging machines, then he would order them from China and transport them through the existing supply chain.

Michal was at the crane site along with Lasin and Akitir. Lasin couldn’t help but notice them two talking constantly. He was angered. He loved Akitir, that was a fact. Now this polish guy out of nowhere seemed to irritate him. He stepped aside and went to the toilet. While he was returning back to the field, he didn’t see Michal and Akitir. He was furious. He called Akitir and

summoned her. He asked her reports and she reported back unhesitatingly. But she wondered why Lasin was asking for her reports in the middle of the day outside the office. Then she smiled and touched his cheeks, “I love you.” she said. Lasin was dumbfounded. He wasn’t expecting this here, neither was he expecting this anywhere else. He was barely able to reply back,
“I love you too, Akitir.”
“Come to my room for dinner tonight.” Lasin was not expecting this. He never got such an invitation from her before.
“Ahhh… sure. Absolutely.” He replied.
“I’ll be waiting.”

Then they parted. Lasin went inside the temporary tent office they had built in the middle of the field. Niban was present there. They two talked about the project coming in smoothly.of the field. Niban was present there. They two talked about the project coming in smoothly. Aniba, the project director, was sitting with them. She was very good at what she did. She took care of everything from managing the survey to crane construction details. After some time, the three went to get lunch together. They ate some dumplings along with Schezwan sauce. Aniba loved dumplings, in fact dumplings were very popular in Nepal. Everybody liked them. They consisted of wheat flour dough cut into small pieces containing meat or vegetable fillings inside them. They were steamed for uniform cooking. The taste depended mostly on the filling. If the filling was good, the outside dough didn’t matter. Aniba was quick to eat all her dumplings then she stared at the other two with her gazing eyes while they ate slowly, savoring each and every flavor. Aniba started,
“Isn’t it good that we are doing so much? The general elections all over Nepal are coming soon, if one of us stood up as a candidate, we should surely make it to the parliament without doubt.”
“It’s more than that. The human mind at the time of judgment doesn’t think clearly. It is easily manipulated through clever conditioning. If the other candidate goes to one of the voters and talks to them nicely, then that would be enough to make that person vote for him or her. Even an interaction like that in the past would have enough effect to prevent them voting you. So, if sufficient candidates reached a majority of people, let’s say 40% of the populous, then we surely lost 30 to 35% of those moderate supporters of ours. This would easily prevent us from swinging the election on our side.” Niban said while taking another momo dumpling from his plate.
“Right now maybe, but once everyone sees houses being lifted off 20 to 30 meters in the air, all over Kathmandu, then they would definitely remember

that over someone talking to them nicely in the past." Aniba replied back without any momo left in her plate to pick up.
"You know what, let us end this superficial discussion and focus on today's agenda. What's the status report of the crane testing Aniba?" Lasin said, shifting his gaze from Niban towards Aniba sitting in front of him.
"Um, the crane testing is 40% complete. Everything checks out at this moment. The project will start as soon as the next crane arrives, barring any complications that may arise in the future. Sir, I think we are going to be ready to test this crane on an actual house model tomorrow. After that goes on smoothly, we can handover the project to the government as soon as next month thereby freeing us from doing other things inside our company." Aniba replied.
"Sure, there's no hurry. There's nothing important going on at the company right now. If there's anything that's important to us, then it's this right here. If we successfully demonstrate the plan then we will gain the trust of the government and maybe, just maybe, involve the government in our space center plan." Lasin told Aniba, "So, let's get to work on tomorrow's agenda." he finished. Then they all got up from their seats and walked back into the tent office.

Akitir wasn't to be seen around the field. She left the field early because she had something planned for Lasin that night. She got into her land rover and went shopping for her first date night. She was 26 years old, so she had no problem with dresses not suiting her. She for some reason liked Velvet dresses. The silky fee gave her warmth and comfort around men, so it was definitely the perfect choice for her date.

Lasin was invited by Akitir for the night at her house. So he dressed himself in a white shirt, a beautiful designer blazer he bought from a branded store since funds wasn't the problem with Lasin, a black tie with the letters 'space the final frontier' engraved on it, loose jeans pant couriered from Italy, leather shoes, strapped a rolex watch on his left hand, picked up his choice of Rayban sunglasses from the cabinet, his phone obviously and got into the toyota fortuner waiting outside his hotel at around 8 o'clock in the evening. He arrived at Akitir's residence at around 8: 30, 10 minutes later than he expected due to the traffic congestion around Ratnapark road. He stood in front of the door, knocked the handle a couple of times and after a few moments, Akitir opened the door, appearing in front of him wearing a beautiful red velvet dress extending up to her ankles. She smelled of Versace perfume which emanated from all over her body. Her hair was beautifully styled into wavy threads curling

around each other and meeting at the back. She had applied shiny red lipstick on her lips which gave radiance to her teeth when she smiled. A beautiful ruby colored pendant was sitting on her chest, woven around the neck. Black eyelashes were shifting his gaze when he looked at her eyes. All of this, he noticed in the first two seconds of him seeing her. Love was powerful he knew, but it was something else entirely when he experienced it first hand. She holded his hand and pulled him inside. She was gazing into his eyes as she made him sit on a chair by the dining table. A perfect selection of the best date night jazz music was playing through the stereo. She had dinner prepared specially adhering to his taste and likening. The 4 course meal was served by one of the helping staff. An expensive bottle of the best Scotch red wine poured into two glasses immediately after they sat. Lasin started,
“It’s a wonderful night, isn’t it”
“It is, for sure, I am delighted to have you here tonight.” she said as she shifted her hands towards the wine glass sitting at her side of the table.
“My pleasure. Thankyou for the invitation.” Lasin spoke as he lifted his wine glass bringing it closer to her’s, “Cheers”,
“Cheers.” she said as they gently struck their glasses with each other and took a sip each.
“You know what, you are a really charming person,” Akitir spoke, as she gazed into his eyes. “You’re dressed handsome tonight.”
“You too, I absolutely love your dress. You’re so beautiful in that velvet.”

The two talked with each other for sometime about their likes and dislikes until finally dinner arrived. The main course consisted of grilled chicken escalope with fresh salsa plus pan fried pork chops. Lasin took a piece and savored it, he was feeling hungry so didn’t care to wait for Akitir first. Akitir didn’t take her bite, instead she looked at Lasin intensely, she spoke,
“You like it? I prepared it myself”
“It’s absolutely delicious. My mouth is watering, you are a chef!”
“Stop it, I tried my best though. I used to prepare my own tiffin when I was a child.”

The two were eating and frequently shifting their gazes from their food to each other, laughing at the sametime. Akitir pushed her foot a little forward inorder to tease Lasin, Lasin grinned. After the meal was over, the final course, a dessert was served for both of them. Lasin took his spoon and gently shaved a portion of the cake, took the spoon towards Akitir and Akitir with her smiling face, opened her mouth and ate the dessert. The two connected with each other at that moment. Akitir did the same, feeding a spoon of her dessert to Lasin with her hand. In the warmth of the candlelight, the distant sound waves of birds singing in the trees mixed with the romantic

music booming through the speakers, producing a melody that scintillated their ears, overcoming their emotions and sending them into a depth of infinite fun, infinite love, infinite emotions. The two couldn't hold any longer. They both stood up around the same time, came closer to each other, grabbed each other, and kissed. They kissed for a minute, but the magic was starting to fade, Akitir could hold it anymore, she grabbed Lasin by his chest and thrust him to the bed. The room was temperature controlled so they could be naked and not be uncomfortable. Infact, the house had the best temperature controlled bed room in all of Kathmandu, since it used the most expensive air conditioning technology by Ytiralugnis. They had the most fun of their lives that night, free to explore each other without any worries.

It was morning already, Akitir woke up first, gently caressed Lasin chest and went to get a shower. She was just coming out of the shower when Lasin woke up. He saw her fair skin in the morning sun. She was beautiful. After waking up and showering himself, Lasin made some coffee. Akitir had the best coffee beans on the planet, the coffee turned out a bit strong. He was afraid she would dislike the bitterness, but she loved it. She preferred strong coffee. They both were now mentally alert. Akitir's morning ritual involved some reading and meditation. She was musically artistic. She had learned to play guitar during her school years. She took an acoustic guitar and started to play it. She played the song November Rain by the American band Gun's and Roses. She played it so wonderfully that the amplifiers on the ceiling gave the illusion of them being in an actual Gun's and Roses concert. Lasin fell in love with her all over again. Over the vast landscape of the human civilization's empire, something resonated with Lasin about love. He never experienced love before in the way he had that day. The human empire valued love immensely, it was certain. Many books described love as something that two felt just for each other. Love that was perfect, two people from far corners meeting each other and getting into deep love, love at first sight, the perfect repentance between two individual. Akitir resonated with him and he resonated back with Akitir. Lasin stared at the star spangled sky and decided to marry her someday, he wanted to make sure it happened at any cost.

10

The second crane finally arrived. The demonstration using the original crane was fully successful. The team wanted to move forward quickly now with the second crane in their hands. Lasin met with the mayor early that day. He wanted to take the mayor's permission before demonstrating their process in the first community. The mayor signed the necessary document, entered in his car and they both left for Bafal tole where the cranes were ready in place for beginning the operation. The first house to be lifted was an old house that had been occupying the street road's edges. The sides of the houses were already dug up by the JCBs the previous day. The foundation was weakened with the application of resonance earthquake inducers. These machines worked by sending pulses of highly directed frequency at a particular location to shake up the molecules, tearing apart any attachments and weakening the structural rigidity of the area. This was a novel technology developed by a German technology in the last decade. The rigging was complete by the time the mayor and Lasin arrived at the location. Now all that was remaining was to lift the house and place it exactly on the right spot in the grid. In the countdown of 10, the cranes were to lift the house along with its foundation, the first of such lifts in a project never before attempted by any other country for a large-scale reshaping of a city. This was a first in many levels and as the countdown neared to 0, many records were set to be broken right in front of Lasin's eyes, Lasin a visionary, never thought this day would ever arrive during his lifetime but circumstances put him, an ordinary man from an ordinary village, born to ordinary parent, incharge of the biggest step yet taken by the whole nation to change its literal face, to reshape itself inline with the future, to bring the future here. The house began to lift and with 8 minutes and 40 seconds, the house was lifted to the peak height leaving an open space of 30 meters tall under it where it used to sit before. Shortly after this, the house was then gently placed back onto the ground where a matching intrusion was dug for the house, facing slightly right and matching the box outline for that house on the grid map. Everybody was thrilled to see it perfectly working. This procedure would now be carried on everywhere else in Kathmandu city to manage the haphazard urban sprawl of houses over the past century.

The mayor thanked Lasin after the demonstration was done. Now, all that was left for the company was to handover the project materials and cranes to the government for the reshaping of the rest of the city.

The company's financial officer along with project director Aniba were to take their payment from their government that week. The sum was disclosed at somewhere between 20 arba Nepali rupees. This sum would've been unheard of in the past but right then, due to the economic miracle the country

saw due to the boom in the manufacturing sector, that kind of sum was now a routine financial transaction inside the nation. The payment was retrieved the next day. Every party involved in the project was happy. The Polish employees were given their compensation for working for the company along with additional stock benefits. It looked like it couldn't have gone any smoother. Lasin was happy with how everything turned out.

3 months of what was one of the smoothest projects ever carried out by the Nepali government changed the face of many localities all over Kathmandu. If anybody were to walk by the streets of Kathmandu, they could literally see houses hung up in the sky. The sight was beautiful. The project was covered by many international media. It garnered huge attention all over the world. Brazil was considering doing something like that in their own country. That was a future prospect, Kathmandu though, was transformed beyond recognition in just those three months. It was becoming more and more smart city-like.

The water on the surface of Rara lake was shimmering in the blue glittering light emanating from the sky, the glow of the stars in the evening sky reflected back from the water and reached one of the boys in a boat. The detail was so real, he could've mistaken it for the real sky. In the past decade, the Rara lake was nothing but a local picnic site. Over those next years, due to the influx of tourists from all over the world, Nepal had experienced a massive boom in the popularity and recognition of its most impressive travel venues. The Everest climbing frenzy that first got started with the summit of the mountain by the British climber Edmund Hillary and Nepalese Sherpa, Tenzing Norgay, was also pushing Nepal into the world stage in terms. The natural beauty undoubtedly was Nepal's most precious gift, a gift that couldn't simply be bought by money. Even the trillions of dollars that Arab countries generated by the sales of oil couldn' buy them oasis that they didn't already have. Yes, they could build artificial havens for staying and enjoying, but the vast landscape of snowy mountains and green hills, moss growing on the walls of caves, waterfall streaming down the cliff of a tall gorge, water flowing down the river bed of a valley, lakes located on top of mountains colored in blue and cold like ice, these things were something few countries in the world possessed. Promise of an architectural grandeur rivaling nature's creation was always made but never realized. This wasn't achievable with bricks and concrete, it was only achievable by the process nature was able to create but that wasn't something humans as much intelligence and wit they possessed, could even consider doing. Humans built from top down, meaning they first gathered all the materials, made them into shapes and connected those shapes into larger,

more complicated shapes. This process was not only inefficient due to the inherent waste of time connecting those already built shapes but also limited. They couldn't create without relying on more than 100 supply chains, in case of a building ranging from iron girder supply to water pump to electric wiring supply. Then they had to decorate the interior and redecorate whenever the previous one was not to their liking. Every time they redecorated the interior, they wasted a lot by dumping previous things and replacing them with more new items. Recycling the same old interior to build it into a newer one was impossible for humans because they couldn’t reshape the items once they had been shaped once. The revolutionary technology of bottom up building was never able to transfer from nature to humans. This always put humans several steps behind nature when it came to manufacturing. Humans relied on other human workers to manufacture goods for other humans, how more inefficient could it get than that? Nature, when it had to create stuff like a new cell, created it on the spot where it was required, not some faraway location where after finishing producing, it would then get lodged into massive delivery trucks which would then transport it to the required location wasting both time and energy. The reason for this could also be the scale at which humans operated. The big scale of the human world might have limited the use of small molecular manufacturing techniques that nature uses simply because in a large space, many more such tiny machines would be required. But this logic was a fallacy, more tiny molecules didn’t necessarily mean it would require more materials, it simply meant that the expenditure of energy while making the tiny machines themselves cost more energy than the top down approach. It couldn’t be further from the truth. Tiny nano machinery by their nature would not occupy space more than the final product they were trying to manufacture. This is why nature didn’t use scaffolds for building, it used the tiny molecules as tiny bricks combining themselves to form bigger shapes.

Lasin was excited to see humans going from top down manufacturing to bottom up like nature. He wanted to speed up that transition so that abundance could arrive sooner. With that in mind, the most idealistic step for him, he figured out, would be to open a nanotechnology department at the company. This would attract micro-particle researchers from academics and other general research labs focusing on chemistry and molecular engineering and concentrate them together to work on a single overarching goal of developing atomic precision manufacturing or in other words, atom by atom manufacturing. This vision was dreamed by many scientists and futurists in the preceding decades but no large-scale endeavor towards achieving it was ever taken. It seemed, as though, Lasin with his position as a brilliant engineer and visionary would at last usher in the revolution of nanotechnology and

introduce it to the general world. Since the job was very difficult, it required a lot more commitment at the company than other projects thought of by the executives.

Lasin was inspired by many of his heroes. He was fully versed in Greek mythology and its many tales of triumph. He read the finest works of brilliant German and English literary geniuses. He was passionate about the science fiction of his era. He read the writings of Asimov, Clarke, Banks and many more scifi geniuses. He was a man of culture. He wanted those stories to become a reality. He also believed that without doing anything, things would automatically improve but rather they tended to get worse over time. If there was anything Lasin was confident about, it was this.

However difficult the future projects Lasin dreamed of were, it was unquestionable, what Lasin did with Nepal's first international conglomerate, changed Nepal's destiny forever. Teh future for Nepal was nothing but bright. New generation would learn about Lasin as the nation's hero and strive themselves to do something big. This would create a chain reaction of innovative minds across the country working on eliminating all the societal problems that had been engraved on the people for centuries. The time for massive cultural change of the country was near.

11
(History of the development of artificial mind substrate)

‘Vox Populi, Vox Dei’ This was the backbone of democracy. Democracy was the worst form of government except all the others. If it was possible to improve it, it surely wasn’t easy. Power always led to corruption of soul, if democracy was replaced by anything that gave power to a particular individual, it was doomed to create dictatorship. Nazi Germany was the quintessential example of that. The country saw the rise of a powerful public figure who promised to bring the country back from the destitute but instead led to even more desperation with the loss of another World War and massive loss of lives. But democracy wasn’t efficient. It required massive effort to choose a new candidate and the investment wasn’t correctly utilized if the candidate the people chose didn’t turn out to be good. Democracy could easily turn from people’s choice to an autocratic system where the humans at the top of the power hierarchy could control the system of law and order and snatch the power from the people. But there was not a better one so people were stuck with democracy until a better system could be devised. But how would that transition happen? Would it happen peacefully like choosing a new president or would it require violence like the French revolution? In any case, the new better method should prevail over democracy. Many thought the new system of governance would be based on an artificial super intelligence that was benevolent. It was a supposedly the most probable assortment given the fact that democracy required hundreds of years to evolve into its modern form. If there was anything that could do it faster say in decades, it was artificial intelligence of vastly more capable kind. The endgame presented with regards to artificial intelligence that if it went horribly wrong, it would enslave humanity and block further growth to minimize its chance of complete dominance, occupied humanity’s mind at the time. The alternative to artificial intelligence was 100 or even 1000 more years of slow human cultural development without any assistance to the populous’ mind. This slow and quite finicky process of humans acquiring knowledge through happy accidents and lucky discoveries had prevailed in the past due to no alternatives. But in an age of virtually nobody interested in doing search on their own, the lucky accidents might not get the sufficient chance it required for occuring. This could vastly slow down the development of humans. If humans were to shift their thinking, then there would be no alternative but to literally shift their thinking with the assistance of artificial minds. These non biological methods of thinking were hard to construct. They required years and years of academic research to get somewhere with the results. Google’s translation feature used to use statistical

methods and algorithms for translation languages in the past. After not seeing improvement, they switch to neural machine translation. This yielded better results but nothing compared to a proficient interpreter. It unequivocally proved it was much harder to house minds outside of the skull. So the skull was the thing that was then challenged. Scientists probed the human mind using tweezers. They could infer the electrical signaling patterns of the human mind and infer the neural correlates of the human thought process. That then allowed them to design and build simulation of networks inspired from that decoded neural patterns. These neural networks were known as Hebbian networks. They worked by taking input on one side and producing the output on the other side. It seemed to work like magic but later on as expectations grew, it failed to produce tangible results that could be comparable with the general thinking of the human mind. Neural networks were able to excel on one task but miserably failed on other generalized tasks. A baby could infer things that the artificial mind struggled with. With this in mind, the researchers probed even deeper into the skull. They found cells, but that was no surprise. Everybody knew about cells since the early 18th century. The surprising fact was that the cells contained tiny structures like cell nucleus, membrane particles, microtubules etc. that although didn't seem to add to the neuron firing process, distinguished the biological thinking from the artificial thinking. Nobody had any inkling about what was happening with these cells that was causing them to act differently than simple artificial switches. The transistor was no more different than the neuron when it came to functionality but they were separated by the seemingly insurmountable chasm between biology and normal materials. What was the thing that was causing this phenomenon? Nobody could tell. But it was certainly caused by the billions of years of independent evolution biology went through without the interference of an intelligent mind. How would humans overcome this billions of years of advantage their rival or ironically themselves had? This was vastly challenging that many considered. The solution had a long history.

In the year 2008, the artificial intelligence firm, Walker Omnipotent Manufactured Brain labs abbreviated as WOMB labs embarked on a decade long journey acquiring scientific minds that joined it to work on creating a working replica of the human brain from non biological materials. They used plastic and metal obviously. They came to the conclusion that the human body and by extension the human mind was made up of the most abundant elements in the universe. This included hydrogen, oxygen, carbon etc. The most manufactured items by humans were plastic and metal. They pioneered a method of etching actual copper circuits on the surface of a plastic sheet. The plastic had to be thin, soft and had to possess low specific heat capacity

necessary for heating and etching melted copper. The plastic sheet was then laid flat on the robotic printer surface, where a finely guided tip with a hole punched in it blew out with the help of a pressure feeding valve mechanism blowing pressurized air, molten copper stored inside an insulating chamber storing molten copper produced by a ring induction heater where rods of copper were passed. They used an intel chip to regulate the value opening and closing mechanism. All in all, it required them 3 months to create this contraption from the ground up. They could then layer plastic on top of another plastic to create a massive block of stacked plastic layers. This acted as the substrate of the mind they were envisioning of creating. It was very very primitive, nothing when compared to the real mind. The lab was fine with it however. They didn't intended to compare their stupid looking plastic junk with the real deal and become miserable and give up. They intended to develop far more advanced and sophisticated technologies on top of that which would then bring their mind replica which was then a plastic box closer and closer to the human mind like an asymptote approaching closer and closer to a value but never quite reaching it. Right then however, they had nothing but a fancy way to make PCBs and a method to stack them which was a difficult process even in the late 2000's. Armed with this, they were now free to add even more techniques to their arsenal to improve the rudimentary brain substrate they had going on. The problem with building an artificial mind substrate was the mind body problem. Even after building an artificial substrate that was as close to the human brain, they couldn't be sure that it wouldn't face the same old problems faced by the neural networks operating inside a computer using software. If this problem was unbridgeable, their massive investment in creating a brain replica would go in vain. This wasn't something they worried about because they thought however difficult it was for this problem to be solved, it wasn't unsolvable because nature had already solved it once and now nature's children were going to solve it once more, just repeat what nature had already accomplished millions of years ago.

The plastic contraption the company had built operated like nothing more than a PCB. Electricity was used to transfer signals from one part of the PCB to another part thereby loosely imitating the transfer of neuronal signals across one part of the brain to another. They didn't use any chip to control the flow of signals. If they did, they would be breaking one of the laws concerning the biological brain. In a biological brain, no part of the whole brain was considered to be the center. Every single part of the brain acted independently. This was in contrast with the general CPU humans built. Inside a CPU, the flow of electrical signals was regulated by the clock which sent

pulses of electricity that flowed to the central part of the CPU first and was then diverted to the other parts of the chip. Brain worked in a completely different mechanism. Each and every connection generated their own electrical potential with the help of mitochondria contained inside each cell. These neuronal cells then communicated with other cells to produce firing patterns that correlated to the thinking process in the mind.

The next thing the company was thinking of adding to their plastic sandwich was a sense organ. Well not a biological sense organ but a sensor created for interfacing with computers. They couldn't just attach a sensor in some part of the PCB board in one of the layers because there wasn't anywhere the signals from the sensor could pass to. Generally, sensors communicated with a CPU which would then decode the electrical signals and infer data about what the sensor was monitoring. But their PCB sandwich didn't have a CPU. CPUs were to be avoided, they thought, if they were to get rid of the problems the Hebbian neural networks faced. Otherwise, they would retain the same problems. Biological brain definitely used sensors, which is why animals could sense their surroundings and take actions that were contingent with it. But, how on earth were sensors supposed to work on layers of copper circuits. If it were to be supposed that one part of the sensor input should give rise to electrical signals in some local part of the 3 dimensional PCB sandwich as output, and the complimentary rise of those circuits gave rise to the output of the brain on some output device, it would unambiguously complete the circle of energy flow in biological creatures. An animal had to eat food that would then get converted into energy as ATP inside mitochondria located inside cells as well as organic molecules to build the animal. This all happened at once at the Krebs cycle which was the engine of cells, the main part of cell metabolization. Some of the energy produced in the form of ATP would invariably be used at the brain where sensors such as eyes connected. The photons striking at the eye cells would transfer signal through the optic nerves which would then get amplified by the ATP at brain and produced complimentary signals at the motor cortex of the brain which would then once again transmit signals through another nerve to the output part i.e limbs and muscles in turn moving them and thereby completing the cycle of energy in the human brain and body. Same thing couldn't be said of their plastic sandwich because it didn't have any mechanism of producing energy by itself. It had to be connected to an outlet plug to get energy from the grid. The grid in turn wasn't able to produce energy by itself using nothing but air, sunlight and rain. It relied on some faraway electricity generator that produced electricity converting some other form of energy mostly heat into electricity. The flow of energy acted less like a cycle and more like a long chain of dependencies.

The plastic sandwich would never be independent if it didn't contain its own Krebs cycle cable of churning out energy when energy was scarce and building materials when building materials was scarce. This was what biology did. It used its own building materials to build itself. It didn't rely on third party builders outside its system. It contained each and every part of the biological construction suite within it.

So was the plastic sandwich capable of creating and growing itself, provided a sufficient source of energy, like biological brains were? No where close. Each layer had to be built separately and later on were stacked on top of each other to create the 3 dimensional shape resembling the 3d shape of a biological brain. The rudimentary plastic model wasn't able to create itself because by definition it was rudimentary some might think. But that wasn't something important. Prions can create replicas of themselves without relying on complex cellular manufacturing machinery. They themselves are very simple but can multiply themselves thereby satisfying the definition of creating and growing themselves. The PCB sandwich by itself wasn't capable of adding new layers of PCB on top of it to make a bigger and taller sandwich and thereby it couldn't grow itself. Whenever the sandwich desired some new fresh thinking space by its own volition, it wasn't able to create it. It had to depend on humans and so wasn't able to expand its capacity by itself. That would definitely put some strain on its learning ability. So, what needed to be done? First of all, definitely, addition of some form of self repair mechanism in case a circuit breaks. They went through all of the discovered methods and technologies but they found none that could repair PCB short circuits without human intervention. Later they settled with something out of the box. Instead of designing circuits with electricity conducting copper, they decided to use a self healing polymer chain to do the job. Polymer materials when left to themselves underwent polymer chain reaction which cause them to build on top of themselves. This was analogous to what DNA in biology did but much less complex. Also, when a polymer chain was cut, the two disconnected parts could be joined together by applying a little pressure. Metas couldn't do that because they underwent oxidation reactions that immediately prevented exposed surfaces to be free of external molecules.

But polymers cannot conduct electricity nearly as well as metals. So how would the polymers communicate? This was solved by using a derivative variant of self healing polymers known as conductive self healing polymers. These polymers could conduct electricity but not as readily as metals. This would certainly limit the computation speed of the mind substrate but they didn't really care about speed at that time. Since they were trying to replicate

the human brain in some ways, they were fine with it. After some research, one of the researchers, Eredna Ednil, found a way to mass manufacture these molecules by using super conductive hydrolysis, basically electrolysis but with super conductive anode and cathode insead of the normal one. This method fused carbon on top of carbons thereby increasing the speed of polymer synthesis by a thousand fold than the previous method. Eredna wanted to implement this process as soon as possible but she found another hurdle.
Superconducting materials at room temperature didn't exist and it would cost millions of dollars to super conduct using vacuum cooling. They didn't have the money. Based in Frankfurt, Germany, they could ask the Frankfurt science and technology aid scheme to fund their project but it seemed like they needed more money than the institute could provide. At last they settled with not building a superconducting hydrolysis machinery and instead decided to rent the Frankfurt chemical labs machine to produce their polymers. The lab worked by synthesizing 800 grams of polymer per customer in a day. This was nowhere near the amount they would require to rapidly iterate their brain designs. So they struck a deal with the lab. It would produce 2 kilograms of polymers, which required 3 hours of time. At last, the team was on track to build a brain that could self repair in case of circuit failure. They started by ordering a preliminary 200 grams sample of the polymer. They laid the polymers exactly on top of the spot where there was copper before. Then they fired a pulse. The pulse started at one end of the circuit, traveled to the other end where it connected with one of the pins of an LED light bulb, then emitted out the other end and in the process illuminating the LED, went back to the pulse generator through the other polymer pathway and restarted the cycle. The team was exhilarated, they knew they were onto something. They repeated the process with all the PCB layers, removing the copper circuit that laid before and replacing it with the polymer synthesized by the lab. No problem was detected at this scale. But biology operated at much smaller scales. How would they scale this method? Was it possible that there was some kind of Moore's law for polymer circuits? Integrated circuits could be laser etched but it was a different playing field with polymers. They would need to innovate from the bottom which would take a lot of time. Maybe another 40 to 50 years like computers? But they didn't think that was a possibility because even at that time, the majority of the populous knew that technology was accelerating faster and faster which would undoubtedly lead to a rapture at the end of the process. That rapture termed by many the singularity could well accelerate the next 1 million years of slow innovation to mere centuries or the next 100,000 years to mere decades. That was all good but it was still theoretical that such a rapture would happen, instead, many

also believed that humans before heralding the arrival of such rapture, would slip into degeneration due to the inability of them to take control of powerful technologies. This was very much a possibility. The incompetence of the unassisted human brain was pitiful. If any extinction level technology was taken out of the urn as Bostrom would say, the humans would definitely not be able to take possession of it. It would possess itself in many corners of the world where people did their own things without anybody in the other corner. Those people could deploy that extinction level technology on the advice of nobody and doom the entire humanity. But suppose that didn't happen, many also believed that the cursed human brain would not be able to accelerate technology evolution forever and therefore not lead to any singularity. That could certainly happen since humans certainly weren't machines, they required eating, sleeping, shitting, fucking and all of the other stupid biological quirks like feelings and emotions that machines didn't have to worry about. However, the human technological progression marched on due to the umbrella protection of culture. There were no cultures in the human world that despised progress because progress brought with itself gifts, gifts of vast magnitude. Things like poverty, sickness, desperation, famine etc. things that went unsolved for thousands of years were easily solved by the advancement in agriculture, production, distribution and political reforms providing everybody or atleast striving to provide everybody equal opportunities.

Erdna Ednil was sure she could do something to make the whole scaling thing work. She researched online and offline, engaged in several scientific social gatherings, meeting several Nobel laureates, Turing award winners, Fields medalists etc. and even tried to find the solution to the problem while dreaming. She finally met with Yar Liewzruk, he was a technologist working at solving big issues humanity had faced but hadn't taken any efforts to solve it. His company's name was Liewzruk technologies. It worked on producing and developing advanced cellular size robotic machines which could enter the human body and fix debilitating issues related to hemoglobin damage, insulin reception, nerve degeneration. When she talked with him, he told her how he hadn't finished even 1% of 1% of the problem. A robot capable of harnessing energy using in situ resources like ATP, Oxygen to do work and at the same time being able to repair and maintain itself was his dream. Erdna was fascinated to see the advanced machines in his lab. The lab was equipped with millions of dollars worth of equipment, over 400 different doctorate researchers all working on a single problem, the problem of finding a way to build artificial living things. Living things were by definition natural. When writing or speaking the word 'living thing,' the word 'natural' was by default implied. Humans had no way of creating self replicating robots capable of

searching for energy, food in nature's case, and able to survive in a hazardous world. Liewzruk was certain this problem was difficult but not unsolvable. He had an advisory board in his company that was responsible for planning the next steps for the company. The company invested heavily in nanotechnology, brain imaging, computers, biolabs, protein research, DNA synthesis, organ printing, drug manufacturing, cancer research and many other bleeding edge technologies. One thing the company was certain of was the inevitability of the rapture termed 'singularity'. Liewzruk himself vigorously believed in it. The company mapped its entire roadmap based on the timeline of the rapture's arrival. Erdna was fascinated by this. She wanted to bring this zeitgeist to her own company. The way to do this was by filling the book shelf in the lab with lots of books talking about the arrival of the rapture. One such book was titled 'The Singularity is Near' by Ray Kurzweil. Liewzruk gave one of the copies he had to Erdna. The book presented an optimistic timeline of the progress of technology presented through the eyes of a visionary who was himself a genius.

"An assembler," shouted Erdna. "A tabletop assembler would solve all our problems."
"But how?" asked Jonas, one of the researchers. "How would a replicator solve all our problems?"
"An assembler would make all the machines we need, in fact it would make the brain itself given sufficient instructions."
"Who would design the assembler then? It's a chicken and egg problem and only nature ever found a solution to the chicken and egg problem through brute force evolution."
"We try. We try to make a single assembler that is general. A general table top nano assembler. I think nanoscale dimension would be sufficient to produce details to the atomic scale since atoms are not many nanometers in size."
"Do you underestimate the engineering challenge behind it? Nobody has ever produced a general assembler. Not even nature itself. It only ever produced specialized assemblers or more specifically, assemblers capable of assembling carbon atoms. We would need to work way, way, way hard to surpass that. How do you think of doing that?"
"We start with biology itself." She answered with an excited expression. "We piggyback on the billions of years of evolution. We utilize the specialized biological assemblers of nature to create the world's first general assembler which is beyond DNA, beyond carbon, beyond proteins."
"How do we feed the instruction set to build parts for a general assembler? Using DNA?"

“Yes, we use CRISPR to pass gene instructions to the world’s most abundant nano assembly complex i.e bacteria and produce parts for specialized + 1 assembler. We will not extract the parts. The parts will be reincorporated within the original bacteria. And again using that improved bacterial assembler we create a specialized + 2 assembler. Till +500 the assembler will be almost indistinguishable from a bacteria but then as it starts to increment from there and approaches +1000, we get increasingly complex and general assembler until finally at +1000, we hit the final true general assembler whose size would be billion times more than the staring bacteria because in a way, we inflate the bacteria’s size each time we add a 1.”

“Wow, using the big ole bacteria as the starting point for a general table top assembler. Never thought those words would come out of my mouth. How did we arrive here?”

“Evolution is powerful and with guided evolution, seems like nothing is out of grasp.”

“Yeah, in a way, evolution in biology is just the continuation of the original evolution, the evolution of the entire universe itself. Literally, we are just hydrogens that evolved to think and feel. Photons and particles zooming at light speed aren’t capable of that. They don’t incorporate time. Their biggest limitation. Thank god for hydrogen. Photons evolved to be hydrogen in the early universe, then that same hydrogen led to us.”

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Lasin was wide awake. A tingling feeling he never felt before made him shiver. The out shining rays of light from the sun breathe into his eyes. ‘Eyes also breathe.’ he thought, ‘We just word it to see.’ The previous night, he was with Akitir. They were getting more and more close as the months had passed by. This was distracting him from his work. He wanted to get back to his work and continue to strive towards his goals. Lasin’s new obsession was to try to design a computer architecture that would directly lead to neuromorphic computing. This, if successfully done, could accelerate the arrival of the rapture by several decades, he thought. He had heard of the term ‘singularity’ many times before. He believed in it but never talked about it with his friends or colleagues. The word for a person adhering to the beliefs of singularity was singularitarian. Some conservative circles even used it as a derogative. Lasin thus, wasn’t interested in singularity at that time. He thought that if the singularity had to arrive, it would arrive, nobody would be stopping it, but in case it didn’t arrive, he and others must not bet everything on it. Yes, the singularity would overturn the entire world within a night and render all the hard work and progress of people after that meaningless but until that people should try to solve challenging things themselves in order to improve livelihood.

Lasin after taking a mug of coffee from the kitchen snuck to his cabin, then set his eyes on the bundles of pages of annual reports. His administrative duty was made very easy by his great team. He never felt it was difficult to run the company. After finding everything up to mark, he signed each and every paper and sent it back to the financial officer. Lasin wanted to do all the things he wanted at the same time. He wanted to manufacture all the things the world needed. He wanted to design all the computers in the world. He also wanted to handle all the security whether it be financial, internet, personnel etc. by his company. But then that was obviously impossible other than by engaging a benevolent artificial super intelligence. Creating such an artificial intelligence had been the company’s AI department’s goal immediately after its formation. But even after more than 7 months, they seemed to have accomplished nothing more than creating simple models for predicting statistical data and representing that data in human readable forms like images, language, audio etc. AI was more difficult than he thought, Lasin admitted. Creating a general AI was as difficult as creating a general factory, Lasin thought. A car factory could never ever produce jugs at the same rate, proportionally by size and mass, as cars. Even if it could after complete transformation, it now couldn’t produce cars without retransforming the transformed factory into the original. This was the greatest limitation to the economy. When cars were needed, car

factories all came into use and workers got paid and all was fine but then when car demands were satisfied and jugs demand began to grow, the cars factories were now useless, neither producing cars nor jugs since car demands were satisfied and jugs it couldn't produce. So a new jug factory had to be constructed, which satisfied the jugs demand but then the cars demand began to grow which caused the jugs factory to be useless. This inefficiency in production due to the limitation of a factory as a manufacturing center for one specific item made the economy unstable and keeping poverty out of bay difficult. 'What could be done?' Lasin thought. 'Maybe a general factory the size of an average car factory capable of producing all the items in the world could usher in abundance.' Achieving abundance was Lasin's dream. He grew up in a poor family so couldn't experience all the luxuries some of his colleagues got to experience in their childhood. Although he didn't have that, he could make billions of children from poor families around the world have the fun childhood they deserved by achieving limitless abundance once and for all.

He researched online for several hours trying to find the one and only company that would pop up in his view screen which he would acquire to have the edge over others in terms of development of the best form of factory in the world. The one factory that would be able to produce all the goods for the consumers and that he would be able to manufacture cheaply. He didn't find any such company. Maybe there wasn't one. The dream of his was mabe simply untrue. Maybe humanity would never reach such a milestone in terms of innovation. Maybe humanity would always be the culture run by slow meat creatures following nonsense rituals that had their origins in primitive ancient history. Maybe the burden of meat sack would not allow humanity to do anything more transformative than they had already done. That may be the case. That wasn't what Lasin wanted but what could he do? He couldn't pray to some deity like some 75% of humanity did and expect something to magically fall from the sky carrying with it all the remedies to his problems. He needed to do it himself. Lasin's long time and childhood dream was to live inside a video game. A virtual reality that allowed for infinite exploration of whatever one wanted. How would one go about creating such virtual reality? Lasin began to explore companies that were trying to do exactly that, he didn't find anything as such but he did find a company trying to build brain-machine interfaces that would allow for the human brain to connect with a computer via tiny thread like wires which would then allow for two way communication between them. If that was accomplished then the brain would be able to signal to the computer sending messages and the computer inturn would be able to signal back emotions, states, senses etc. which would make the human brain

think it was inside some other reality, the reality that was created by the computer that it was unknowingly attached to via channels. Lasin wanted to talk with the company. The company's name was Neuralink. It was founded by Elon Musk. He checked all the reports the company had published, including financial reports and went on to find out that the company until now hadn't made any progress inserting the device in the actual human brain. The trials conducted in mice and monkeys were successful to some extent but they later tended to contract some disease that led to their untimely death. This was found in 8 out of 10 animals. Such high risk of death rate for a clinical trial to be conducted in human volunteers was unacceptable. Maybe it would take another 50 years for the company to be successful in its ultimate goal? What was the ultimate goal of the company? It was namely the merging of humans with machines or merging of the human brain with artificial intelligence by adding a layer of artificial brain power on top of the natural outer layer. This was a lofty goal for a startup. Lasin went to visit the company the next day. He met with the company's CEO, Anya Chana, she was an Indian Phd specializing in neuroscience and artificial intelligence. The company didn't need any financial officers at that stage for there was none. It didn't have a board, an administrative department or anything. The company was pure research group and they were researching furiously. But since the problem was so hard, it was impossible to solve it in one go. The brain and computer were two completely different things and connecting them through an interface was completely sci-fi until just 20 years ago. Still though, the interface was messy, although the brain used electricity and nerve channels like circuits inside an artificial chip, the delay in speed was causing problems regarding the running of real time batch sequencing algorithms used for sensors. The sensors used in houses and cars like camera, heat sensor, sound microphone worked on very different principles and didn't have to worry about energy insufficiency so they were designed with optimization in mind. But evolution didn't get that privilege, it had to produce a working product after a slight design alteration through a mutation or that animal carrying the product went extinct. Completely and utterly different method of creating the same sensor. One in CAD and other in genes and marshes. Maybe that didn't matter, maybe the two would some day merge effectively through some ingenious solution that humans weren't able to figure out. Lasin wanted that to be true. But he couldn't have pipe dreams about such things. He needed to base himself in reality. The CEO talked,

"Look sir, we have all the major hardware required to do the research but we seem to have been stuck in this limbo of neither here nor there without the human trial."

“But without fixing what's causing those deaths, don’t you think it’ll be a bit risky to test it out on human volunteers?” Lasin replied back.
“The problem was the pseudo organic reaction taking place between the immune cells in the brain and our tiny threads. It led to the death of nearby cells and caused stroke-like symptoms in the subject. We couldn’t figure out how to fix this major issue but by a slight favor of luck, we managed to halt the progression of cell deaths by injecting immuno-suppression drugs in the brain. The immuno-suppression drugs in the brain couldn’t travel outside the brain due to the BBB which prevented unwanted side effects in other parts of the body. But that didn’t work out in the long term. Although it prevented those cell deaths and got rid of the strokes, other infectious diseases that targeted the brain were now given a leeway since there was now virtually no immunity inside the brain. Diseases could now target the brain like it was the easiest lunch in the entire body. The diseases that didn’t target the brain began to target the brain, now you get the feel of how serious the trouble was becoming. We at last coated the outer layer of the micro threads with an oxidation and reduction preventing aluminum coat and the problem got figured out itself. Science is unexpected. Who knew CAD was the solution instead of drug injections?”
“What’s that machine over there?” Lasin pointed to a bulky machine that looked like a radiation therapy gun.
“It is exactly what you think sir.”
“What? You are having cancer problems?”
“You are correct. We regret to admit it but 4 out of 10 monkeys almost always get some form of brain cancer. The cancer cells cluster around the electrode threads which is why they cannot be surgically removed like in case of tumor. The only treatment that worked until now is radiation therapy.”
“You are actually having more problems than I thought. How are you thinking of overcoming all these hurdles for beginning your human trials next year?”
“We are on track. We aim to solve the cancer problem by reducing the current voltage in the threads and inserting them in the brain using utmost precision with the Caliver surgical robot.”
“What’s the longest time any of your monkeys survived?”
“3 years after undergoing their implant, we have 3 monkeys still alive and well.”
“But that isn’t enough. You must have at least 50% of the monkeys alive and well. 3 out of 10 isn’t a good score.”
“Yeah, but we are the first one that’s tackling the problem in over two decades. So we definitely need some leeway.”

“I hope you succeed. What was your company’s charter again? If you can’t beat them, join them? That’s so sci-fi sounding.”
“Well, if you show today’s technology to anybody living in the early 18th century, then they would think the same. But when progress flows sequentially, nobody is surprised at the end.”
“The acceleration of technology that many are talking about, what do you think about it?”
“I believe it’s going to happen but I try not to focus too much of my attention on it. We try to do stuff, not wait for some rapture of exponentially exploding technology in some distant future.”
“It’s not distant, they say. They say it may happen as soon as 2045, do you believe in this data?”
“I don’t think so. Probably more like 2077 or 2083.”

With this, they ended their talk. Lasin was happy with the web conference. He wanted to open a brain implant technology in Nepal himself. But the resources needed for it like top Phds, labs, advanced equipment and robots were not readily available. The next best thing he could think of was to buy out the Neuralink company but that seemed radical in that early stage. The technology they were developing wasn’t even working properly. It wouldn’t be a good investment of the company cash reserve. He had no problem with trying to start from scratch but he was feeling tired with all the projects he had in hand and wasn’t feeling up to adding another one on top of it.

Later on when Lasin was on the phone with the energy minister of Nepal, he was hit with another much bigger problem that actually had to be solved instead of fantasizing about putting chips inside people’s heads. The problem was that the energy consumption in Nepal had increased in the last 4 years drastically mainly due to the rapid establishment of several seed companies that leveraged from the China-Nepal technology transfer initiated by Ytiralugnis and the massive funding of foreign venture capitalists trying to capitalize on it. The energy supply wasn’t sufficient, so the department of energy requested Lasin to do something about it. Nepal for its majority of electricity depended upon its hydro power infrastructure. The rivers in Nepal displaced several millions of tons of water every second. That momentum was then used to rotate large turbines which then converted the mechanical energy into electricity which was then transmitted to the whole nation through the grid. The power cables in Nepal hadn't gone underground. Majority of cities in Nepal had this problem. Kathmandu was an exception. The naked wires caused bird deaths, injuries to citizens and fires in houses. The capital to take aloof those wires underground simply didn’t exist before. Underground

transmission lines also prevented energy loss while transmitting. The incentive existed for the government to take the initiative so now it was trying to do exactly that. Lasin put the phone down. He was ready to do something about this energy shortage. But first he needed to take a shower. Spending all day in the construction field where a new garage bay was constructed to house the machinery the company was producing made him dirty and stinky. He almost spent 1 hour in the shower. After putting on new clothes from the locker in his cabin, he was ready to get to his office. He opened his laptop and looked up some energy solution companies online. He found many energy production alternatives to conventional sources. The most talked about on the internet was unsurprisingly fusion energy. Fusion was a lingering problem that big nations had failed to figure out. It was notoriously difficult to produce plasma inside a container. Even if the plasma was produced it lasted for a short time and even after that it required more input energy than it was capable of outputting. The solution to this infuriating problem had eluded scientists for more than 30 years. Something had to finally be done for getting fusion to the market. Lasin couldn't figure out how he could take part in figuring out fusion. Many graduates found fusion research to be an illustrative career since much of fusion research was funded by governments' deep pockets.

Lasin figured out if he wanted to get a ride on the fusion train, he would need to develop an innovative solution to the plasma creation and sustenance problem. By patenting the solution to the problem, he could earn money by licensing it to big foreign governments. He could also charge less fees for small countries so that they would also get a chance to get on the bandwagon. All in all, it was a nice thought. But how would he go about figuring out the plasma problem? He could hire graduate researchers from top Nepalese universities to get them to work on it immediately but he concluded that it wouldn't produce tangible results since no university in Nepal had fusion energy programs for students. The next thing he could do was contact the Indian government and agree to send some of their top IIT graduates on a foreign research program in Nepal. That would benefit both nations since under the deal those graduates could come back to India to implement fusion without having to license it from the company thereby saving billions of rupees. Prototype fusion could turn out to be expensive to build from scratch so Lasin could take as much help as possible from both the governments. India and Nepal relationship was fleeting due to increasing Nepal-China alliance. Both of them collaborating to develop fusion could lead them to have better relationships than ever before. Lasin had to do it, it would mean a better economy, better bilateral trade and a better green energy future. He decided

to focus the next few years of his life on this single problem, to bring fusion from the pages to the real world.

Lasin called Niban to his office, they sat down to talk about Lasin's fusion dream. Lasin wrote something in a notebook, he outlined a basic comparative magnetic fusion chamber composed of titanium vanadium alloy that allowed for maximum heat sustenance.

"Wasn't this problem already solved?" Niban asked with a confused face.

"It isn't. It's a really difficult and notorious problem. Don't think it'll be solved anytime soon." Lasin answered back with a serious tone.

"The national defence budget isn't utilized right now to build bombs, maybe we can use some of that money to establish a fusion center in this district. I mean Bharatpur already has some electricity production infrastructure. We would need to just add a fusion cell on top of it to make our prototype." Niban said to Lasin.

"Creating a plasma encapsulating chamber is looking difficult, forget a cell capable of outputting energy at this stage. Even if we accomplish making a cell, we would need to solve the energy hurdle. Fusion always takes more energy in the labs than it is capable of producing. That could take the maximum time to solve since it is the only problem that is yet to be solved. Many countries have built cells that can sustain plasma for hours but none have yet produced surplus energy using it. The superconducting magnets consume an extremely high amount of electricity."

"How do they hold the temperature of those superconducting magnets? It must get extremely hot inside the cell." Niban asked, looking surprised.

"Well, the magnets are heavily insulated and are liquid cooled. That liquid cooling mechanism is the most electricity consuming part of the cell. If that is solved, surplus energy can certainly be produced from the cell."

"Let's do it then. Let's fix those magnets."

"It is difficult. Ordinary magnets don't generate strong enough magnetic fields to suspend the plasma in the middle of the donut shaped chamber. Even CERN uses superconducting magnets for its ring particle accelerator."

"But particle accelerators like CERN have to accelerate particles to almost the speed of light. We don't have to do that. Right?"

"Well actually we have to. We have to heat the fusion material to temperatures so high that their atoms collide with each other at almost the speed of light. This extreme speed and energy is what fuses those nucleuses together."

"God damn. It's so much more complicated than I thought!"

"That's the reason why fusion is always 30 years away and not 3 years away."

After their discussion, Lasin decided to hold a company meeting and try to figure out the employees' perspective on the problem. The company consisted of the best talents in Nepal. Nepalese university design was based on a top down architecture. If the administration decided that any student deserved a merit for a fellowship at a research center, then the student would get a monthly allowance for rent, food and asylum. The research money wasn't included in it but if the student had a proposal then the local government could add it to the money in the university allowance. This didn't get graduates motivated to work on experimental science or theoretical departments. They much preferred to work on already established centers like medical labs, chemical industries, agriculture plants and zoological centers. This fulfilled their underfunded post graduate life. This type of risk averse academic design wouldn't work for an innovation based economy, Lasin thought. He tried to think of a better university structure that would allow for students that were willing to take risks and find better solutions to several problems in the science and technology sector. But whatever he thought of, the results could be reaped only after more than 10 years since fusion energy programs from undergrad to grad level would take a generation of students at high school 7 years to complete and 3 years of Phd. Lasin was in a hurry, he wanted to do something right then. The meeting ended with many agreeing that anybody in academics wasn't going to bring them closer to their big goal. They need to open a fusion branch abroad to take advantage of their scholarly advantage. Was the problem completely out of reach in Nepal, Lasin thought to himself. Maybe the India collaboration problem might work, he considered. All in all, Lasin was prepared to do anything to achieve fusion. The next several months nothing major happened although all the bureaucratic hurdles for transferring IIT graduates from India to Nepal had been crossed. The only thing that was left was a research center dedicated to fusion energy to be established in Nepal. It would require massive amounts of investment which the company could afford.

The center was finished constructing. The work consisted of building a wide bay whose roof was constructed of tin to cut costs. The inside was white. White inside was an insistence of Lasin. He thought that a building consisting of a white interior and white flooring gave it a sci-fi vibe that made everybody working inside a motivation to work on bringing that possible future closer. But the sci-fi aspect wasn't the only reason for a completely white interior space. The white interior also allowed for maximum light to reflect off surfaces. This made everything more illuminated and easy to see, overall preventing injuries due to accidental collisions with machineries. The space measured about 4000 square meters. Big enough to house one or two JETs. JET, which stands

for Joint European Torus, was the original donut shaped fusion reactor. It was shaped like a donut that was surrounded by powerful magnets. Its plasma containment chamber was the size of a small house. Overall, this massive reactor could produce and contain heated plasma for more than 6 hours. But unfortunately, it consumed more energy to keep that plasma contained than the plasma radiated heat which was then converted to electricity using a steam turbine. Steam turbines were inefficient but they worked which couldn't be said for other ways of converting heat energy into electricity. JET in the end turned out to be a failure. The superconducting magnets it seemed were certainly not the way to go. Sadly, a new method was never found. That's where fusion research was stuck at. Ytiralugnis, a company dedicated to advancing the human frontier could certainly work on finding a panacea that would solve all problems of fusion once and for all but it could also turn out to be a complete failure in the end. Nothing was guaranteed in this field.

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Sci-fi, continually surprising and getting ever more creative, this form of literature was the dominant genre of writing in the early 21st century. It expanded the minds of many creative writers who dreamed up crazy sounding and far reaching ideas about humanity, culture, space, technology and the entire universe. No other form of literature was as expansive in terms of scope as sci-fi. Sci-fi was literally the king of literature. The main reason for this could be attributed to the grounding of sci-fi mostly in the physical reality but with implications beyond the day to day chores of primitive humans. It ramped up the scope of human civilization's scientific accomplishments several fold which allowed for unimaginable possibilities impossible using contemporary science. This prospect excited the reader and made him/her able to inhabit that world through the writing itself. Exploration sci-fi genres were the most popular since they adhered to the inner desire of all human beings to explore unexplored territories and charter uncharted areas. Romance or crime novels couldn't do that. In fact, sci-fi writings sometimes predicted the arrival of technologies they described in the real world. This was why scientists often tried to work on bringing sci-fi technologies to reality. They found them plausible and saw them not breaking any physical rules which was necessary for something to exist in the physical world. The most sought after sci-fi technologies that everybody was fond of was instantaneous teleportation, force shield, invisibility cloak, laser weapons, time travel, black hole energy, fusion energy, interstellar ships, Dyson spheres, solar system colonies, habitable exoplanets, galactic civilizations, intergalactic travel, multiverse, parallel universes, infinite energy, aliens, advance artificial intelligence, benevolent superintelligence, utopian culture, material abundance, money-less society etc. These technologies were thoroughly explored in several writings. Famous books on some of these topics were reprinted and sold millions of times. Of the forms most extreme, the stories featuring galactic civilizations where a single species was able to conquer the entire galaxy was the most engaging. It was assumed since the ancient history that humans were the only species in the universe. Maybe it was because the anicent people didn't know the actual size of the universe but nonetheless, they couldn't fathom that another species was somewhere out there in the sky. Later on, as science progressed and the place of humans among the universe was identified, people began to beg the question, "I there life out there?" Many believed no from their own experiences but may more also believed that there were infinitely many civilizations out there in the universe because they believed the universe to be infinte in size as well as scope. They believed that there were other universes with laws different from theirs and so those universes could turn out to be more exotic than the one

they were inhabiting. These contadicting views weren't well recieved by the general public, they wanted the real truth. But it was impossible for humans to find out the real truth without mapping the entire universe which they couldn't do. For them to prove that they were not alone, they would only need to spot one alien in the midst of space but to absolutely prove that they were 100% alone in the entire universe, they would need to charter the entire universe. This roadblock led to many theorizing that if there was intelligent life anywhere else in the universe, they would be much more technologically advanced than them which would mean that they would have conquered most of the space. So, to prove that aliens existed, the only thing humans need to do was to look for their signs. People surmised that advanced alien species would be putting trillions of trillions of intelligent signals which would be hard to ignore. But even after carefully looking at their sky, they spotted no intelligent signals. Some believed that the aliens were deliberately hiding their traces so as to not be spotted by humans. But why would they do that? The other people questioned. If aliens were consciously hiding from humans, what was the reason behind it? Maybe they were planning to conquer Earth and enslave humanity. Such quandaries always remained in the human psyche continuously haunting them which they then converted into movies and drama shows like Star Trek, Star Wars, Alien etc. It would be very difficult for aliens to hide their traces since any civilization would be constantly producing waste materials as much as they tried not to. This was a bottleneck in every kind of energy consuming system. Coal after burning produced ashes, fossil fuel after burning produced carbon dioxide, computation produced heat, fusion in the stars produced heat, any kind of physical system using energy produced unwanted waste whose purest form was waste heat. This waste heat was responsible for the inefficiency of every physical system. No physical system consuming energy was capable of converting 100% of it into working energy. This inherent limitation of a physical system was responsible for the slow degradation of the quality of the entire universe. Early on, the universe contained much more useful energy which was slowly consumed by the stars which transformed it into light and heat energy and distributed to the surroundings. Some of this heat radiation striked a planet which allowed for several geological changes to occur that shaped the entire planet. Through millions of years of slow changes, the planet's face changed and harbored intelligent life that evolved from the waste heat of the stars, the waste that stars couldn't resist throwing away while fusing their elements using the gravitational force. Some tried to imagine what a civilization spanning the entire galaxy would have. Knowledge and culture grew with the size of the population. The knowledge and culture of a small country was small compared

to a large country where millions more inhabited. The increase in the size of the total knowledge of a populous constituted the power and influence of that society. When one country conquered another country, they gained the knowledge and culture of the new society. The new society's values, traditions, ideas were now able to disseminate to the new arrivals. This increase in the size of the knowledge of the conquering country thereby increased its scope and power. So, continuing this logic, one could see the implications of a galaxy spanning society. Their knowledge base would be incomprehensible because their population would be immense. Each of the individuals in the galaxy wide civilization would adhere to some values which they respected. The values that guided that individual would also guide others and so this produced a unique culture among the similar individuals. Over the thousands of years of the civilization's timeline, the culture would disseminate to other parts of the galaxy at the speed of light when it would finally encounter the most distant culture in the entire galaxy. Where one culture found the solution to the most ligering problem of the entire galaxy, it could send probes thereby transferring the most valuable information for the whole galaxy at the speed of light itself like a biblical god sending rays of salvation. This process would lead to the most extreme form of abundance one could imagine. Each individual would have the choice of watching another individual's creation from the other side of the galaxy and everybody else thereby having abundant sources of entertainment and knowledge of all kinds. The whole galaxy would transform into a utopian frenzy consisting of any kind of imaginable thing possible for free. The Economy would be moneyless, material requirements would be limited only by the speed of light itself, if information to create something existed then that something could be materialized in an instant by advanced synthesis methods for free. This continuous production and adoption of new values created a galactic civilization consisting of extremely diverse species, thousands of trillions of inhabitants, the most unique and powerful cultures and the biggest knowledge base of ideas, information and history in the entire universe. This power was thirsted upon by the writers of science fiction when they dreamed of such civilizations. Just imagine what it could do to a human mind that was centered on the dreadful contemporary challenges Earth, mass starvation, societal collapse, terrorism, religious zealotry, war, pandemic, desperation, human condition, mass psychosis, mass hysteria etc. He/She would feel terrible and might lose hope on humanity itself due to its stupidness and inability to see the bigger picture. Lust, greed and power corrupted Earth's inhabitants to unleash untolds amount of destruction upon the people thereby turning the

dream of a blissful future with vast meadows of infinite pleasure, abundance and happiness into the present hellish landscape of torture, pain and suffering.

Akitir was in her cabin when suddenly the phone rang up. “Who’s this?” she asked after picking up the phone.

“Hello mam, we are the european nucleus research center speaking. We would like you to confirm the order of 3 torus subsections for the plasma chamber containment vessel.”

‘Woah, they are building the reactor already?’ Akitir thought to herself. “Yeah, sure, let me confirm.” She looked at the order logs in the company financial profile. There under the section of fusion reactor 1, Date: 7/11, she saw the orders for a titanium-vanadium torus. The ring was listed as unarrived. She looked at the company’s name and reached back on her phone.

“Yeah, I would like to confirm the orders.”

“Sure, mam. We would like to add that the torus sections are yet to be constructed so will take a month or so for that to finish and an additional 2 or 3 weeks for the delivery.”

“Ok, thankyou for calling.”

Akitir was kinda surprised to get the call. She expected the reactor construction to begin fro, late October or early November but this was mid July. The people at the top were really hurried about this project she thought. She called Lasin to inform about the call but he didn’t receive it so she went to the main room. There she found Aniba and Niban but not Lasin.

“Where is Lasin?” she asked Aniba.

“I don’t know man. I think he is not in the city.” Aniba replied.

“You must know where he is right? You are the early fusion project handler and primary assistant of Lasin. How can you say you don’t know? You are being careless I see.” Akitir said to Aniba with an angry voice.

Aniba hearing those words got hurt. She didn’t expect Akitir to be so rude. Her voice got stuck at her throat. Then after gulping a painful breath she spoke.

“I’m sorry mam. I apologize for my carelessness. I will be better next time.”

“I didn’t mean it that bad for you to apologize. Maybe I was a bit rude. I am just tired today.”

“Akitir,” Niban said turning to Akitir, “I found from the notice from his leave email that he is at his brother’s house today because his nephew got sick. He said everything is fine and he would certainly return back tomorrow.”

“Oh, that’s a relief. Thank You Niban. And Aniba, I hope you don’t mind.”

“Of Course mam, why would I?” Aniba replied.

“By the way, the torus sections the fusion department ordered, they are arriving next month.” Akitir said looking at them side by side. “So we have to make room for them. It’s already been 6 months since construction of the

factory bay started and we still haven't cleaned the reactor room for housing the machine. Aniba, get it done by today. And check all the appliances you need, I will supply them. Finally getting some new job as a supply chain manager. It was so boring the past year."
"Yes mam, I will do so. Also mam, I am getting notice that the workers are feeling hot working at the machining bay. Maybe we can install better temperature management there."
"Ok, I will send two RyzedX room temperature conditioner there right now." Akitir said to Aniba.
"What's up with the workers at the factory today? They are acting a bit weird." Niban said, looking at Aniba.
"Maybe it's boredom or insufficient pay or something. We really can't say. Somebody will have to take the job of motivating them to work hard and fast. We really aren't done with the ceiling wiring yet. The water supply to the reactor room is required to be 500 liters per sec, we are only getting around 12. The electricity requirement is more than 234 mega watts. Even at the proximity of the Narayani hydroelectricity plant, we are getting around 23 mega
Watts. We have to solve these mammoth issues before the torus testing begins maybe around early december or sooner." Aniba replied.
"500 liters of water to the fusion room? And I guess the water must be distilled? We haven't built that distillation plant yet. That's going to consume a lot of electricity and we are in shortage right now. Holy, this project is so unforgiving." Niban said, looking at Aniba.
"Yeah, the distillation plant construction will begin early next month. We must be looking at a construction time of 2 to 3 months. Well before the first test around December." Aniba said.
"Why are the workers getting angry? Maybe the food is bad? What's up with the mess? Is the food there good? I think I might need to talk to the mess manager." Niba said, sounding concerned and agitated.
"Yeah, good food is vital for optimal work performance. Might need to change the mess menu. 40% of the workers live here 5 days a week so we definitely need to make the dinner and breakfast better. Will ask the financial officer to supply more money to the mess today." Aniba said, sounding concerned.
"Why don't you do it right now?" Akitir spoke.
"Right now? Should I call him here?" Aniba said surprised.
"Yeah.. call him." Akitir said bluntly.

After being called by Aniba, the mess manager Oshok came to the main office. He looked at Aniba and spoke,
"Yes mam. You called me."

“Yes, I wanted to talk to you about the mess food. I don’t think it's satisfactory to the workers. Some of them have complained about it. Do you want to add anything?”
“Mam, the food is fine. The kitchen is operating at max capacity. We are doing the best. Everybody is eating full.”
“What??” Aniba said in an angry tone. “The kitchen is operating at max capacity? Well, how can that be???” she shouted. “The kitchen is the biggest in all of Nepal. We have supplied the best cooktops and all the kitchen utensils. How can the kitchen be strained?”
“Sorry mam, didn’t mean to say that. I meant that the workers aren’t sufficient. I had to lay off 4 workers from the 30. We didn’t have enough money to pay all of them.”
“What?? Are you joking?” Aniba shouted, exposing her teeths. The manger was shaken and taken back a little. Aniba approached him and leaned near to his face. She was taller than him. “The money that’s being paid to the workers is looked after by myself. I wrote the checks and submitted them to the finance office. How can there be insufficient pay? What are you talking about? I need answers.” She stopped talking and stared at Oshok with her bulging eyes.
“You don’t need to shout Aniba. Let him explain first.” Akitir said to Aniba and then immediately turned to Oshok. ”What happened? Tell me exact details. Why did you lay off 2 employees without asking us? Who gave you the permission? You are responsible for taking care of the kitchen and food orderings, not for laying off workers. And most importantly what did you do with the money of those 4 workers. Last time I checked the kitchen employees’ pay records, they didn’t show me a salary increase. ”

Niban was called by one of the workers so he left the gathering. Akitir, Aniba and Oshok were now standing alone in the center of the office.
“I’m sorry mam.” Oshok spoke, then he began to cry. “I didn’t pay the workers. I took the money away for myself. I’m extremely sorry. I beg your mercy.”
Akitir was absolutely furious with Oshok. He had committed a scandalous act of laying off workers and possibly cutting off worker’s pay to benefit himself. The reputation the company had gathered over the past 6 years as Nepal’s leading hope and beacon of economic prosperity for workers who were paid fairly and on time was damaged by one rat who saw an opportunity for himself by becoming corrupt. Aktiir was furious. The workers who were laid off were faithful and loved the working place in the sense that they didn’t announce them being kicked off to the public, Akitir thought. She wasn’t able to hold her rage. She repeatedly shouted, “Why did you do this??” and slapped him in his face multiple times. Aniba couldn’t stop her. The nearby employees came there after hearing the shouting and restrained Akitir, stopping her from hitting

him further. Oshok's face was red. He had blood dripping from a wound in his left cheek bone which was caused by Akitir's phone she holded in her right hand. The phone contained diamond style crystals casing which were sharp and caused injury on his face. Oshok was groaning with pain. Niban and other employees carried him to the medical room where he stayed.

It was early morning the next day. Lasin had arrived from his brother's house early. He heard about the recent incident that had occurred at the company. Rather than taking the perspective of random observers, he wanted to talk to his love directly to get her first hand account about the incident. Akitir loved the company. She was the first employee directly hired by Lasin himself to look after the essential duties of a supply chain manager as the company was experiencing a major surge in growth. If there was anybody else in her place when the incident took place, they might have reacted differently. They might not even have been phased. But, she wasn't some random employee coming to the company to grow their CV. The company was like a part of her heart. For her, it was more than just an enterprise. Lasin came by her at her cabin. The company office had turned into a big apartment complex. It was a big house where all of the top executive employees had one floor to them. Lasin had visited Akitir's lodge multiple times. She decorated her rooms in a stylish and futuristic manner. Lasin absolutely loved it. He even said to Akitir one day that she had deliberately designed her quarter that way to appeal to Lasin, to lure him in there. She smiled at his face and told it wasn't the case. She had loved futuristic architecture since her childhood, she said. So, it was imperative for her to design her stay quarters where she spent most of the year in that style. Akitir was sitting at a desk. Lasin approached her, pulled a chain and sat beside her. He looked into her eyes, smiled a perfect smile and spoke,

"What did you do yesterday? I heard you hit the mess manager in the face. His injury was so severe that he had to be taken to the medical room." He smiled. "You still angry? Don't want to talk? If that's the case, it's fine. I won't bother. I don't care about him. I already know what he did. That piece of shit deserved no better. Even if he was completely hospitalized by your beating, I couldn't care less. But I'm concerned about you. You have been silent since that evening. Do you regret it or what? If I was you then I wouldn't. I .." He was suddenly stopped by Akitir's raising her left hand.

"Can you please leave me alone for some moment. I don't feel like talking today. I will return to the office tomorrow."

"Oh honey, why do you worry about taking leaves? If you want 10 days leave, I will give you 15. But please talk to me, okay? I can't see you like this. Alone

and sad. I love you more than myself." Lasin stood up, took her left hand that laid at his right and kissed it. "I'll come in the evening, okay? Prepare a good dinner for me." With that, he approached the door and turned his head back to see if she was still there, which wasn't really necessary since humans didn't vanish suddenly. After that he left.

The day went smoothly. Some concerns were raised by the board members about the previous day's incident but it was taken care of by the company's PR managers. Oshok was immediately suspended and wasn't apprehended for PR reasons. The company's policies however were changed and drastic measures were put forward to quell any future corruption issues. The company held a meeting that afternoon and discussed employee management and fair conduct by managers and administrators. From then on, no manager was given the right to fire employees without consulting with the board first. It was a big decision since the company had grown to be so big but it was necessary to let everybody know how serious the situation had come to become. Nothing interesting happened afterwards with Lasin other than Akitir's foreign friends Rabbie and Emma asking about her. Everybody knew about what was going on between Akitir and Lasin, it was no surprise but it surprised Lasin to see her friends talking to him so frankly. Lasin was the company's original founder along with Niban. So it was a new experience when anybody other than Akitir talked frankly with him. Niban called Lasin and informed him that there was a municipality inspection committee coming to investigate the distillation center land. Lasin hurried upstairs where the company's important files, data and server information was kept safely. He met with the file manager, Rahpratap and asked him to find the land certifications and DPR of the distillation site. After about 15 minutes of body sweating searching, Rahpratap presented the bundle of files to Lasin. Lasin thanked him for finding them so quickly since it was always difficult to keep track of a few documents of a house let alone an entire company. Niban and Lasin preferred to do the high level government tasks themselves instead of assigning them to somebody below their command. The inspection went on smoothly. It took about 4 hours, longer than required like any other government involved work. Finally at 7 o'clock they both arrived at the office carrying with them the license certification to start building the distiller plant. Lasin wasn' done with some of the work he had laying on the desk in the morning. He focused his attention onto those. It took him an hour to complete those.

After the work was over, Lasin suddenly realized that he had made a promise that morning with Akitir to come to her quarters for dinner. But so much had happened in the intervening afternoon regarding policies and

changes. He was very tired and wanted to go straight to his bed and sleep for the whole 9 hours. So, was he going to her? He had his answer ready immediately. If there was one thing in life that he was more certain of death, it was that he would never tell false promises to Akitir. Maybe Akitir had prepared dinner or maybe she had not, it didn't matter. What mattered was that he was going to spend that night with her. It was 9 o'clock. For a late dinner together with Akitir, the timing was not bad. The circumstances though were. He was drunk and needed to empty his mind before driving to Akitir's quarters. It was 2 km away. He hopped inside his car, tightened his seat belts and drove straight to the housing complex. Akitir's room was on the fourth floor. He came out of the elevator and knocked on the door. After a few knocks, the door opened from the inside. The room was lit to create a red atmosphere. Lasin entered the room and found himself in a fragrant room that smelled of love. He knew what was happening. Akitir had prepared something special. She may have done so to forget the previous day's incident or to simply please Lasin. Either could be true. Anyways, she had prepared a special dinner that night to quell Lasin's appetite. The culinary delicacy consisted of Indian masala puree, Paneer mixed with special Punjabi curry, puree Dudhi chana, Lakcho Mag, Rajma with special curry, French fries, chicken curry for protein and rice for carbs. Lasin had not expected such delightful cuisine. He loved every dish which was hand made by Akitir and some staff, undoubtedly. Nobody could prepare so much food in such a short amount of time. After having dinner, the both chatted a little. Lasin spoke first,

"Hey, what's the worry? You still seem to be sad. If I may cheer you up with some good news then I would like to say that the dork you hit yesterday is fine and well. Nothing bad. He was just old and couldn't stand your hard slaps so he fainted due to concussion. Plus it was your phone you were holding that did the damage. It wasn't your fault."

"Don't want to talk about it right now. How did you find the dish?"

"Oh, I found it wonderful. There was never any doubt about it. The veggie Indian curries were perfect. Didn't know you had Indian cooking skills."

"I learned it last year. Had nothing to do outside of simple boring tasks so decided to take a go at preparing some Indian dishes. My favorites are puri and moong dal. Lots of fun eating them in the morning."

"Loved them myself. So, I asked for dinner and you made it happen. Was there a choice since I didn't really ask, it was more like a demand. You are wonderful though, the dinner was more delightful than I expected."

'Well I always found cooking to be an enjoyable hobby for me so it really wasn't any trouble. Although I hope to come to your apartment some time to enjoy what chef skills you got."

“Sure, I say come next week if you feel like it.”
“Nah, not next week. Some more time later. Need to free up my mind for this new project of yours. Why are you hurrying about fusion so much? Isn’t there so much time for undertaking another huge project? The houses in Kathmandu are still being ‘rearranged’ as crazy as that sounds.”
“That project is almost finished now. It’s been a year since it was commissioned. We have a much larger and much more important project looming over our heads. We need to give all our attention to it. But right now I’m feeling sleepy. Fireup some lullaby in the stereo and let’s go to sleep. We only get to sleep together around once a month due to us traveling to different places all the time.”

Aktir prepared the bed, the bed was colored red which was to Lasin’s likening. Lasin got on the bed first. A candle light was glowing form one of the corner. It was electric since nobody wanted their house to go up on fire due to accidental mistakes. Akitir slowly pulled the ribbon away from her hair. She wore a black leather bra under her garment. She removed the silky outer coat. The summer wasn’t influencing their dressing choices inside a temperature controlled house. She wore black panties as well. Her earrings shone in the glow of the candle light. Lasin found her beauty mesmerizing. He couldn’t hold his gaze. He wanted to pull her into him. And… he did. After a very long cuddling, they let go of each other's embrace and talked about their passions, their dreams, their place in nature, philosophy, science, future, past, delight, their favorite writers, political leanings and fell asleep. But even in their sleep, they had momentary lapse of deep immobility which caused them to shift into each other and experience delights even inside their dreams.

Lasin wanted that dream to never end. He never thought unaltered consciousness was capable of experiencing such ridiculous amounts of joy simply through his brain producing joyful chemicals while he spent his time with Akitir. He fantasized about so many things, it was like dreams within dreams and in each of those dreams, he and Akitir had the perfect delightful experience of sharing love with each other. The night was so magnificent that both of them thought it was the peak of their joy.

The next day arrived after the blissful night ended however, as hard as Lasin and Akirtir wanted it to last for a little long. Akitir didn’t know what happened at the office the previous day. She was shocked when she found out about that day’s plans. Through some persuasion by Lasin, the company board decided to honor Akitir for her efforts in finding out about Oshok’s foul play. During the times the company was small, everyone felt at home and not least with Akitir. Akitir knew everybody and everybody knew her. Many

employees admired and commended Akitir for her valiant efforts in structuring the company for maximum profit and good internal environment. Newly arrived interns from various parts of the nation as well as the entire globe liked Akitir and preferred to work with her more than others. She had made a big personality of herself. Her strict mannerism and discipline oriented management style although had some dislikers was mostly taken nicely and was later embedded into her identity. When somebody mentioned Akitir, everybody imagined a committed and no-nonsense lady that was stern in her behavior as well as work ethics. So, when the board decided to honor Akitir, everybody praised the move. It was the first such honoring ceremony in the entire company's history which consisted of little more than 6 years. Lasin was happy that the board chose him to give the medal to Akitir. The crowd cheered, especially the kitchen employees who were betrayed by their disgusting manager. Akitir stepped on the stage after the host, Sarah, spoke her name. Lasin was holding the medal. Akitir walked up to him. Lasin hugged her and congratulated her on her brave and valiant effort. She was not interested in making eye contact with Lasin. Lasin went behind her, facing the crowd. He stretched the medal ribbon across her neck and tied it on her back. Akitir went back to her seat. The ceremony was predicted to have lots of audience so to make it a memorable moment, they had decided to host a talent show along with the honoring. Rabbie sang first. She had a beautiful voice which Akitir liked. No other person in the entire company had a voice like hers. After her, one of the conveyor belt workers, Sarad, went to the stage and performed some break dancing moves. Everybody was delighted by the show put on by him. After some more performances, Lasin himself went back to the stage and gave a short speech about how important it was for other employees to learn from Akitir's bravery and commitment to her duty. Everybody clapped after hearing that. Finally, the board members all went to the stage and one of them, Takayashi Namogochi, a Japanese, concluded the ceremony by offering everybody free beer and juice for non-alcoholics at the cafeteria. Lasin became heavily drunk. His last two days had turned out phenomenal. Akitir didn't attend the party citing that she had some stomach problems.

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‘Familiarity leads to contempt.’ Lasin thought of this all the time. He was familiar with various technologies. He was familiar with the latest in every department at his company. But he wasn’t familiar with certain things. Things like colonizing Andromeda for example. He wanted in some deep part of his heart to colonize the next door big galaxy that one could if desired on a particularly dark night, see the vague outline of. It looked small and tiny seeing from the familiar dirt of Earth but it was immense. It was about twice the size of the milky way in diameter but occupied a tiny patch of the night sky. In the past many mistook it for another star nebula and thus went on to conclude that their galaxy was the entirety of the universe. It wasn’t their mistake obviously but this negligence might have slowed down the progress of humanity, Lasin thought. Was there a chance that the inability of the early humans to fathom the actual true size of the universe made them complacent about their actual worthlessness and propelled them into more and more brutish acts of dominance play and war upon each other? Lasin certainly thought it was the case. He wanted more kindness in people after they were made to realize their insignificance in it all. Was their hope? For Lasin there was. If he could invent the cheapest telescope that wasn’t hampered by light pollution when gazing at the stars, the stars would be able to gaze back at people’s eyes and show them their magnificence. This would propel them to explore those stars and the stars would finally be used for what they were intended for, giving warmth and light to living beings on the planets surrounding it. Beautiful implication of a seemingly small idea, the idea of seeing what existed out there, the unlimited possibilities. He pulled the chair to his desk and in the middle of the night at his home on the edge of the company compound, he scribbled ideas for a telescope. This telescope would be able to see infrared and detect far lights. Soon he realized there were no ways to see the far infrared and radio region of the light spectrum without impacting the size. The size would be massive and massive things cost a lot more, in fact the cost of an object would increase exponentially with its size. No way could a small telescope function as a large telescope. Lasin was admired by his science professor in his school. He told him that he was deemed to do great things in the future, that he was beyond other pupils. But in reality, however hard Lasin tried, he couldn’t make hard core facts go away. That Lasin could simply with the turn of his brain gears, make the size-cost exponential graph go away was a pipe dream. Yes, Lasin was able to start a company and gave thousands, possibly a million people jobs, but to say that he was able to change reality’s rules was in no way true. General facts were hard to get rid of. So instead of trying to build an ultra powerful telescope so that people would get motivated

to reach for the stars, Lasin wanted to do it himself. He was finally going to start a space company. He decided to keep it separate from his many holding company Ytiralugnis. He decided to establish this new company outside the umbrella of Ytiralugnis. He decided to name the new company Andromeda Space Industries. ASI for short. Why did he choose this? It was simple. He always had this dream of reaching to the nearest galaxy and he also knew at the same time that poor monkey brains of people wasn't in no way sufficient for this extremely difficult venture. He knew that in the end, ordinary biological people that didn't have the intelligence to successfully implement a centralized economy in a country had no chance of tackling such a big ambition. The ambition was nothing short of impossible. But it had to be done otherwise the future looked nothing more than bleak. How was he going to get humanity to andromeda? Even if he had an advanced artificial intelligent agent at his fingertips, it was still going to be a massive difficult effort. But forget AAI, he didn't even have the infrastructure required to construct simple chemical based rockets in his country. He would need to wait for years to get permit and paddle through the bureaucracy, then only he would be allowed to use his big financial funds for the construction of the space garden. Mars was targeted by NASA and SpaceX since the early 2000's. Bill Clinton had proposed colonization of Mars as the next step that America needed to take to surpass the moon landings of half a century earlier. But after seeing how exponentially difficult the task of landing on mars was compared to simply dropping tin capsules on the low gravity surface of the Moon, he quietly dismantled the proposal. Even with the deep pockets of the most powerful empire of the Earth, space had always been manifested as the most difficult and unforgiving task for poor flea bitten humans. Adapted for tree jumping a mere 3 million years ago, reaching to the moon wasn't any small feat at all but to state that humans were now qualified to reach for the next planet was overestimating. Another key thing to remember was that Nepal didn't have ports to transfer rockets manufactured overseas. And transporting rockets by air was going to add even more overhead to the already exceeding cost of the manufacturing aspect. What was going to solve this? Furthermore, there weren't any existing aircraft manufacturing plants in Nepal that could be transformed into rocket producing factories. The only industry was metal and Ytiralugnis's electronics class manufacturers procured from China. China had rocket manufacturing ability but there were no wide enough roads cutting through the himalayan wall to accommodate 18 wheeler trucks carrying 9 meter fuselages built of stainless steel. In light of these hurdles, the only significantly cheaper way of getting rockets for Nepal was to build brand new factories and put in place extensive supply chains for bringing aero grade materials to them. How would

he go about building it despite the challenges facing him? Lasin was at Ritika's apartment. He wanted to be at her place that night. Ritikas had nothing against it so she happily complied. Lasin prepared dinner that night. He wanted a party at Ritika's flat but he decided not to at the last moment. So right then the two alone were sitting at the bed. He asked about Niban, who Akitir told was at the headquarters. It was night time so it didn't make sense to Lasin why he was at the office at 10 o'clock. Akitir replied back,
'He told me that he had something to finish up before I left at 5 o'clock. It was something government related, he said. He added that he would leave at 12 o'clock so basically he is basically working overtime."
"What could it be? If it's government related then maybe some survey stuff regarding the distillation plant for the fusion energy which doesn't look too promising right now. We haven't had any new parts delivered and it doesn't look likely that we will achieve the energy output breakthrough within the next decade which if is the case will anger our shareholders that will think that we are investing in ventures that we ain't going to reap rewards from. I need to call him."
He dialed Niban who immediately picked up the call.
"Hello."
"Yes, hi Lasin. What made you call at such late night."
"Nah, I just.. Ritika told me you are at the office. Why may I ask?"
"Actually I'm at my condo right now. Didn't get any shit done today. Maybe tomorrow."
"What's so urgent? She told me about the government stuff. Is it anything secretive that you are not telling anybody?"
"It's just that.. I.. Um. Well I'm trying to lease land for building a spaceport. Like to land rockets and launch too."
"What? Why didn't you tell me?"
"Thought it wasn't going to pan out. Tricky stuff dealing with the government. Not easy and super slow if you consider the snail's pace of the administration."
"We can do something together to fix it. I called you to tell you the exact thing. What are we going to do with our original space center plan? We must be doing something right? I mean it's been more than 5 years and we haven't taken any steps on that."
"I would love to talk to you early tomorrow morning. I'm super tired right now. Where are you by the way?"
"I'm at Akitir's."
"Ah, ok. Call you tomorrow then. Good night."
"You too."

Lasin looked at Ritika's eyes and stared for sometime. She noted his frustration with regards to his space dream. Such vast magnificent sky above and all they have been doing till now involved building concrete boxes that were producing electronic household gadgets. She found it melancholic too. The romance of the skies was too much for Lasin's heat to ignore. He wanted to break free from the Earth's formidable pull. For her, it wasn't that much of a case. She found it perfectly fine to be stranded on Earth for the rest of her life. How long was her life anyways? She was certain of the sad fact that it wasn't going to be fun after 65 years for sure. Why bother with all the depression involving humans remaining on Earth forever if it was such a difficult task to take humans off this rock. She wanted to live a happy life with her love and to see his love suffering from the internal anxiety of the possibility of humans going extinct in the next century due to some huge calamity brought her sadness too. She believed in her fiancee. He was a dreamer but to dream of impossible things and becoming sad for not being able to accomplish them wasn't apt. It wasn't right at all. Lasin wasn't enjoying his busy life that much due to those ruminations. She touched Lasin's cheeks and spoke calmly but firmly,

"What happened to my love? Why do you look so sad? Is it the fact that rockets are difficult?"

He didn't speak. He just stared at her.

"Well don't be sad in that case. It is just because our brains cannot manage intricate things that require precision. We are built to analyze extreme sensitivity in determining the coefficient of cryogenic mixture while a rocket is zooming through space at 7000 meters per second. It simply isn't in our DNA. We aren't programmed for that. We are just flea bitten monkeys capable of a little more thinking than those hairy mammals. We don't have a numerical processing brain. That's why we needed computers to launch the first rocket which we didn't need when launching the first aircraft in the sky."

He finally smiled. Then he gave a soft burst of audible launch. Ritika laughed too. They looked at each other's eyes and brought their arms onto each other.

"I wish we were a bit more intelligent. At least at the level where we could comprehend our brain. If that were the case, we would have been able to reverse engineer our brain and instantiate them into computers. No need for human thinking ever again."

"I mean if wishes were to come real than I wish that we are born into a galaxy spanning civilization since the beginning. But then if that were the case, we wouldn't have met and we wouldn't have been together right now."

“Stop such nonsense. It would have been better if we met in that galaxy. At least we could have gone to another starsystem on our dates. How awesome would that have been.”
“Or we could simply plug into some virtual reality and experience reality bending personas of each other. How close would that bring us together? We could exchange our bodies and experience love from the other’s perspective. You would be Ritika and I would be Lasin. Love would remain the same but the world around us two would change. Even have virtual children maybe? Oh I could be a mom and dad at the same time.”
“You want to have babies?”
“Not in this reality, nah. It’s too painful and arduous to have babies here. I meant in virtual reality.”
“Yeah. That would be fascinating. I can’t imagine the possibilities. Being dad at one moment and mom at another. Reading girl stories as mom and boy stories as dad.”
“That dream may never come, remember? It’s just a speculation. Even actual galaxy spanning civilizations right now might have not figured out accurate virtual reality due to their inability to understand consciousness at a fundamental level and how to instantiate it into a computing substrate. But that’s highly unlikely. A galaxy spanning culture not having something as fundamental as mind uploading technology is highly unlikely. For us though, it is a pipe dream and will remain so until we reach Andromeda maybe.”
“Yeah. You made me sad again. Why are we so primitive? I mean it doesn’t make any sense how one could remain such primitive creatures for thousands of years of their existence. How could we fight and kill each other for hundreds of thousands of years instead of working towards building better technology?”
“Maybe it’s the fact that we are here thanks to famine and death? I mean our driving force that is evolution is neither technologically efficient nor moral in ragards our current morality framework. I mean, gazelles are still suffering at the mouths of lions and cheetah and we don’t take and don’t intend to take any steps towards reducing their unimaginable suffering. While we blissfully dip the steak rib and chicken wings into the sauce and chew it with delight, there are those feeling and conscious animals are right next in line to become that food on our plates and we don’t care an iota about that. Do you really think there is any beauty or cosmic plan in our existence? It’s all a complete psychotic frenzy which we are daily part takers of. I mean not only do we sit and do nothing, we actually ourselves do to animals the things we despise when done to other humans. In the past humans at the bottom of the rich pyramid were treated like animals by the people at the top of the hierarchy. It is still the case in caste systems in countries like India and ours. We are

labeling people since their birth and hating them for it. I mean how come monkeys are able to explain the formation of babies and do it in a way that involves class distinction? How come stories like this got attention and public adoption?"
"Yeah doesn't make sense how we are such ignorant assholes. Sometimes I think we never evolved from those monkeys. We are 90 percent the same. Only some neocortex got added to the monkey brain which gave us some leverage over our habitat as well as the ability to suppress our limbic desires. Otherwise we would still be acting like complete maniacs and constantly fighting with each others over trivial matters such as beer drinks. Not the best example I gave right there since we actually fight a lot at pubs. But it would have been insanity if we were unable to stop our fighting urges while being mentally sound. That's why I think we don't care about those cows and pigs suffering at the slaughterhouse. We just don't care about mentally inferior animals even though they are capable of experiencing pain and suffering at the same degree as us."
"Yeah. Nature is cruel and we are crueler. Lasin, does consciousness instantiation, sorry for using a computer terminology here due to lack of a better one, during baby formation and time of birth make sense to you? How come we arrived at this moment and neither earlier or later? Do you think time exists coherently after our consciousness extinguishes, again sorry for a bad term, or do you think it is completely meaningless and we were never meant to be born coherently into already determined time stamps? Like why now and not later, say 1000 years later after humanity reaches the stars?"
"Not sure but I don't think that time is something that manifests physically in a way that it is coherent and forward flowing. The universe is itself infinite so it may have already existed for an infinite time and that the total count of all conscious creatures even just the intelligent ones that ever lived itself exceeds infinity. That's why I don't think in a universe of infinte space and infinite time, we were meant to be born at this exact moment. Maybe if our parents had decided to not conceive at all, we would have been at a universe that was a billion years later in the future or backwards in the past. Let's say time was something coherent, the universe is still infinite so whatever event you can think of has reached a time at all stages of its progression. That means the castle that takes a billion years to complete has been completed at one part of the universe and just beginning at another part of the universe even though let's say the universe existed for just 13 billion years. It's because the universe has all the permutations of space and time. A large patch could accelerate extremely fast, even maybe in a computational simulation designed by an advanced civilization to research it's ancestor history which would make the

timeline of the universe for the creatures inside the simulation accelerate at whatever pace the aliens desired withstanding the computation limitation of those aliens. It is actually lucky how amenable this universe is. Right now we may close our eyes and dies, sorry for taking about death all of a sudden at midnight but it is necessary, say we die, the next moment we could be at a part of this universe that is unrecognizable to our current form as atoms would be if we were shrunk to the size of a proton. Literally unfathomable if you know what I mean. That is how extreme this stuff can get. The universe has no exceptions and adding another layer of freedom by introducing computer simulation that simulates another reality adhering to now physical laws on top of this already expansive free will mechanism of our brains, this universe is boundless. Simply boundless at what it can do. This whole reality might feel very limited and unremarkable right now with us being on top of a barely large enough rock swinging around a mid size star, but to civilizations capable of bending the laws of physics and changing the fundamental constants at their patch of causal influence, the universe is limitless. No limit, no bound. Nothing to stop them from doing anything, even exceeding the light limit. But as with anything, those civilizations occur at such far distances from each other that the intervening space is just too massive to care about. They certainly influence their 100% of space but nevertheless the universe's infinite size makes it infinitely unrealistic for them to outpace other civilizations to conquer infinity because that is simply impossible for any of them. No light speed modification is able to conquer infinite even if it were possible to make light speed however large barring infinity.``

"Lasin, that's so deep. Do these thoughts come to your mind in your daily life? I mean it is all so powerful and radical. Normal people don't care enough to even listen to what you have to say on this matter."

"It's hopeless with our current infotainment system. No way to disseminate such radical views even with films or books. These are unfathomable topics and to comprehend them requires extensive modification to our meat brains which is again hopeless at the moment with our current technology."

"It's all hopeless then, until we do something to tick our gooey brains faster."

"Ritika, it's hopeless until we do something about the problem of death, famine, culture war, poverty, greed, rich-poor divide, extreme capitalism, dictatorship etc. These crippling dysfunctions slow us down even more on top of our already slow composition. A central economy ran by a superintelligent AI cause humans are not intelligent enough for guiding a centrally ran economy, that handled all the rudimentary needs of emotional biological beings like eating, sleeping, housing, education, entertainment, rich medical care would give them leverage and time to think and work on their passion.

They could have AIs that helped them to be better at learning. Learning is super difficult, you know? It takes years and years to get 1% of knowledge on something and after your whole life you can barely be called an expert at one field which is a small subsection of all the fields humans have managed to grasp. AIs helping to learn and flourish would produce better and skillful humans that would not be built up by the lust of money and greed. They would be true homo sapiens, the term originally referring to ‘wise men’. We would finally be wise. Right now we are not even close becuase of arrogance, deception, delusion, dishonesty, ego, envy, greed, hatred, immorality, lying, selfishness, unreliability, violence, etc. all the traits that were passed down to us from our evolutionary ancestors.”

“But Lasin, if all is quite good here and we have been surviving as a species despite the desperations of individual human beings, do you think there exists an inherent force that energizes people to press forward with technology to make everybody’s livelihood better?”

“I think so. If there didn’t exist such a force, I don’t think that humans would be where they are today. Althought in contrast to galactic civilization, we are really backwards, we still have to give it to the people that came before us who paved the way for us to carry on with the pace of innovation they set in place at their time. We are quite lucky that we weren’t born into the middle ages. Those centuries were truly desperate even for those will iron heart. If you transported a rich child from today who has access to anything he desires with his mum’s credit card to the middle of 1308 then he wouldn’t be able to survive a day. The stress of a completely different era coupled with the middle ages’ particularly sinister qualities would turn anybody from today into a soulless zombie. Eating would be difficult. Sleeping peacefully would be difficult. He would be constantly haunted with nightmares about not being able to get love, attention, kindness, quality food, movies, a car, a fancy suburban house, restaurant dishes etc. Within a few days, psychosis would set in and death from depression would ensue.”

“Death from depression? That’s such a haunting phrase. Explain it to me further please.”

“Do you really want to enter the deep terrifying rabbithole of extreme depression sickness in the middle of the night?”

“Yeah sure. No problem. What could go wrong?” She smiled slightly and her teeth shone due to gleaming candle light emanating from the bedside desk. Lasin sighed a deep sigh and began to speak.

“There is something called Death from Depression. Let’s call it DFD to make it easy to pronounce every time. DFD ensues in the late phase of a person’s manic episode initiated by a trauma. The trauma could be anything ranging

from grief of a close one's death, self hate, PTSD, childhood experience, orphanage, constant bullying, social anxiety, failure to achieve lifelong dreams etc. The trauma is the starter of any depression. Sometimes depression can arise naturally in one's mind-brain connection due to chemical changes but then again much of the time it is initiated by a trauma. Now, the trauma if it is not addressed stars to give stress. Stress increases difficulties in one's life. One is not able to function properly when he is not in a good mood due to stress. If one gets stressed continuously for years on end, it develops into an early depressive disorder. This disorder hampers oneself much more than any form of daily stress. It develops quickly inito more and more stronger depression until finally one is crippled by it from within the mind-brain connection. Now why I'm saying mind-brain connection is because we really don't know if this disease solely exists in one's mind and that is it is invisible and effects only consciousness which manifests into one's perception of the world or that it exists in the brain, thus affecting neurons which affects the behavior and outlook of one through that route. It is really hard to tell. These two routes are intricately linked that the crippling suffering that depression induces exists solely in one's consciousness. This suffering gets more and more intense without giving physical pain. It escalates to such levels that one finds it impossible, literally impossible to generate a conscious will to move his body and limbs to get out of his bed from morning to evening. This is why depression is far more vicious than any other disease. It literally locks you into a position for the rest of your day until you have to get up to force feed yourself or die from hunger and muscle cramps. Now eating by forcing yourself to eat isn't going to give you the pleasure you normally experience when you eat while you're hungry. Watching your favorite show to force yourself to laugh for the first time in 6 months isn't going to make you actually laugh. Laugh is the manifestation of happiness which emerges from the deep conscious brain which is where depression wrecks its havoc not allowing an iota of happy thoughts to flow out of it, forget any happiness coming out of that mind. Mental sickness in its most terrifying form. Completely aware of the surroundings so one doesn't get the relief of becoming fully disjointed from the harsh reality picture he has constructed in his depressed mind unlike other maniac patients who get the relief because their minds have been completely damaged to the point that rational thinking itself has been completely sabotaged by their sickness. Depression patients are completely rational which is why their suffering is much intense and real. Eating by forcing is very difficult if you have ever tried. You may have found trying to force feed yourself something you completely loathe horrendously difficult. Well, present the depression patient with the world's best tasty dish prepared by a michelin 5

star chef and they will still feel like vomiting. In fact, they vomit immediately after they eat. This is called gag reflex vomiting. It's when you are afraid or anxious and feel very sad. Try to eat a whole pizza when you just found out that you son has died and tears are rolling down your eyes in streams. Your gag reflex will kick in and you will vomit each bite immediately without swallowing. The depressive patient is continually losing his/her mental child and thus they can't eat when they have to eat. They become very weak and in cases they lose their mental faculty due to hunger and thus die from paralysis. Other cases where people can at least eat and fulfill their basic biological requirements, they still feel each and every discomfort their mind produces. The suffering reaches such extreme levels that death becomes their ultimate relief. Medicines could have prevented their deaths if taken early but after suffering for too long in silence, their hope is now already shattered and death seems to them like a beautiful angel doctor that's going to get rid of their tortured existence with the swift blow of her kiss. The depressive patient thus chooses death and kills himself in any way that seems fit. This DFD ends the depression through death of the patient. One could even kill himself by cutting his neck with a knife lying by his bedside and thus die with the most horrendous pain simply because tying up a noose becomes too much of an effort."

"Holy shit. I never knew this sickness was so scary. Why don't they take medicine early?"

"Early is a tricky question. When is it early? When you are suffering stress that may or may not lead to depression or when you are in the early forms of depression? It's really hard to know that you got depression without meeting a psychiatrist which many hesitate to do.``

"And on top of that, our culture despises depression patients. It treats them like weaklings."

"Yeah, we have to fix that or else many more generations will suffer unwanted suffering."

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The night had ended in that hemisphere. Lasin and Akitir both awoke at the same time but one of them kept themself to the bed. Lasin was that person once again. Akitir jerked the blanket from her chest and in one leap came swiftly out of the bed. Lasin was gazing at her, seeing her energy but didn't make any effort to move. He was almost bound to the bed. He used to get very deep sleep when he thought about deep things before bed. Lasin was that kind of person, one who didn't get his sleep disturbed by unwanted thoughts at sleep hour but instead just the opposite. So when Akitir brought coffee to his bedside, he had to finally force himself to put some strain to get up otherwise Akitir might just get out of his life. Or that was just overthought. He nonetheless saw no option other than to stay with her for the rest of his life. It was almost like destiny had brought them together. Lasin was a charming guy and so was Akitir. She was tall and fair, had straight hair and showed keen interest in fashion and dress choice. Lasin, although handsome, didn't really care about his attire. Since men almost always wore the same dress, they tended to be less concerned with their dress up in comparison to women. That was an undeniable fact. Finally after what looked like to be an extensive ordeal, Lasin managed to sit up straight in his bed and sipped the coffee. Now that might seem like an oxymoron. Who on earth drank coffee without even brushing thier teeth or rinsing their face in the morning. Well, Lasin was that man. Akitir shouldn't have brought that coffee to a still sleeping man but since she did, Lasin had no other choice than to do what followed. After talking some small talk and drinking their coffees, they both thought of what they wanted to do now. Lasin had certainly dreamed about the space center that night but Akitir on the other hand wasn't interested in that personally. She however, if ordered by him, would have to give her full attention to the task of managing the logistics of the operation as efficiently as possible. That was what she was good at. Not having any personal choice and leanings but to do what the administration asked her to do. Being the leading decision maker although with some restrictions from the board, had made Lasin complacent with his abilities. He was certainly making good decisions for the company but that was certainly not irrefutable evidence that what he was doing was optimal. Eventually due to his complacency, he might commit some dread mistake that might make the company go bankrupt. That was always a possibility so he had to be considerable of that. Nobody was perfect, even contemporary but old and experienced entrepreneurs he admired like Elon Musk and Masayoshi Son had committed grave mistakes that put their company stock at jeopardy. Were those mistakes on the same caliber of damage if they were committed at his company? Maybe not, since Ytiralugnis

was now massive and any blunder might do more than necessary damage. Lasin started,
“Hey Aktiir, I think I might need to think deeply about this space thing that our company is certainly going to move on with as it’s next primary focus. For the next few days, I might be busy and so if you need some help regarding work, just call Niban okay? I think I’m going to tour Nepal after so long to see where the construction of this space launching colossus is going to be optimal. So that’s my agenda from today.” Akitir looked at her empty coffee mug and replied back,
“As you please. I also got some chores to handle at the office. Might take a few days to clear up those. You do what you have to do. I think we have a good future with this space plan. Building, launching, testing, iterating is quite different from our previous experience with designing, manufacturing, distributing workflow. We will have to get used to the new one and soon if we are to corner the market before new innovative space startups.”
“Don’t get in a hurry. I know your work passion and mindset but this thing is difficult. Elon Musk has the only successful space startup in my opinion. All others are just the freeloaders feeding off his company’s growth.” Akitir made a blank face. She had a different opinion. She also thought Lasin was a bit more hasty in his space passion.
“Yeah but that might change for sure right? Today with bleeding edge technologies like ion propulsion and cheap 3d printed carbon fiber rockets, we might be left behind if we don’t hurry.”
“Really? You call ion propulsion a bleeding edge technology? And 3d printed rockets cheap? They are cheap to manufacture, yes but when you try to scale 3d printed rockets, you quickly hit a money wall. There simply aren’t big 3d printers to print 50 storey rockets. They are way too expensive to make any sense.”
“Yeah but that might also change. Someday we might have massive colossus rockets built using modular 3d printers that are able to climb the rocket they just built to add on top of the stack. I mean what’s stopping that from happening is just its economy right? I mean the innovation has been done already. What’s remaining is just implementation. Just implementation? That’s the most difficult part. It takes the most amount of time and isn’t going to be as easy as you think. To take an idea from design phase to mass implementation requires solid planning. You can’t start building factories when you don’t know what you are building is going to work reliably and isn’t some party trick. Things have to be resistant to work defects. Who knows these untested printing robots are going to work as planned in the field. I don’t think so myself.”

Akitir had listened to what he just said intently. She definitely agreed with his statement that innovation was difficult to implement in the field. Landing rockets propulsively had been conducted on test model rockets even in the 90's but their first commercial use happened only since 2016 with SpaceX's landing their falcon rocket boosters on top of ocean barges.

"Ok you outline the draft. I will work with the parts suppliers as soon as you are ready."

"Sure. Thanks. I think our company will finally be headed into a straight direction now that we have a common goal. The common goal of colonizing the Andromeda galaxy. What a bizarre notion right?"

"That isn't bizarre at all. It is like setting a direction on a compass. When you have to go north to reach your house or somewhere, you use a compass, nowadays GPS but in the old days, compass were present in everybody's pockets. The compass points to the north but you don't plan to reach the north pole. It's the same here."

"It's not the same actually. I think we will genuinely build rockets capable of traversing the vast distance between Milky way and the Andromeda galaxy. I think even if we knowingly work against that goal, our goal of reaching the next planet in the most efficient way will push us towards it. Thus I think trying to reach for the Andromeda galaxy is not out of the question."

"Wow. Never heard such an argument before. Ok then. Let's go to Andromeda." She laughed showing her teeths. Her black eyes were watching Lasin intently. Lasin laughed back.

"I am not joking, Akitir. I'm serious about stuff like this."

"Nah. I ain't joking either. The premise seemed too ridiculous so I couldn't stop laughing."

"I need to go to the toilet and stuff. See you in a moment."

After finishing the morning ritual and taking a shower, Lasin appeared back the living room and saw Akitir serving breakfast.

"What's that?"

"Just some poached eggs and bread. You like this, am I right?"

Lasin didn't actually prefer poached eggs to friend ones but realizing the efforts Akitir put on to prepare those, he decided to be affirmative.

"Yeah why not. I like varieties for sure. They look delicious by the way."

They had their breakfast from the same plate. It wasn't something common but they found no repulsion at doing that. Taking a big bite of the bread, mixing it with the egg yolk, Akitir spoke.

"Lasin, I think that your ridiculous aim of reaching the Andromeda galaxy will not have any believers around your circle."

“You don’t worry about that.” Chewing his food, he added. “Also, remember the Steve Jobs quote about first them not believing you, then ridiculing you and finally saying it was the case all along or something like that. I think having big goals does no harm.”
“Comeon, that quote wasn’t made for somebody like you who says humanity should try to reach Andromeda when we haven’t even colonized our neighboring planet.”
“We will soon, don’t you worry.”
“I mean I don’t care. I will just happily ride along until I die.”
“I don’t think you will die though. You have plenty of time to reach the longevity escape velocity. What is your age right now? 26?”
“Nah I’m 27. I don’t think I will live till 2100 to catch the longevity escape velocity or whatever. I even think it's a pipe dream.”
“No its not. Who made you think that?”
“I myself. I can think for myself. Can’t I?”
“Yeah but you are the technologically savvy person with two degrees, how come you are the luddite and I the progressive?”
“Look, I am not a luddite, ok? I just think that this longevity escape velocity is much more difficult to achieve than people give it credit for. I think it will take the ballpark of around another century.”
“Yeah yeah. I understand. But I still disagree.” Lasin had already finished his portion by this time and Akitir was closing in. He waited for some time till she gulped the last portion. Then he continued. “Ok so let's part then. I might see you in the office.”
“Alright, see you there.”

Lasin got up and since he was already dressed up after coming from the shower, he pulled his overcoat from the hangar and slipped it over his body. He got out of the door and waved hands to Akitir and dropped straight down from the elevator. Later he arrived at the office in his car. He didn’t have any administrative duties left that day so he decided to do a field tour to check out the land that Niban was trying to lease from the government. Niban was there at the office. They two met at the main meeting room and without any ado, started their discussion. Lasin started,
“Niban, yesterday you told me that you found out about a suitable land that you think is going to be good for constructing a launch testing facility. Where is that? We need to go there and possibly finalize everything. I am not joking around this time. Space is the only next step for this company. No AI, no quantum computing, nothing. Only old school space. Let’s reach for Mars and beyond if possible.”
“Ok sure. The area is the same as the last time. That Nuwakot hill we visited

many years ago. Remember something? We talked about how we were going to transport the rockets in the cable cars since there weren't any roads to accommodate large transporters. I am most certain that there still aren't."
"What? It's the same place? You should have told me earlier. I am actually quite nostalgic about that place. You are from Buwal so it's right at your alley. We talked with the mayor last time. Who are you talking with this time?"
"The mayor got replaced with a new one in the recent election. I have fostered a good relationship with this one. He agrees with a lot of my evaluations. I think we have a good chance to hit a deal. The work can then begin soon after that."
"Wow. Never in my dreams I thought we would end up at the same spot we began with. I am actually quite nostalgic about that place. It looks really wonderful and sublime like California."
"You have been to California? I thought you personally never visited the US."
"Actually I had to go to Cali on an urgent basis. No time to make any appointments or anything."
"Ok, that's silly. I never knew you've been to the US. I personally haven't been there."
"Oh you must go some time. I will arrange the visa. So many states and so much diversity."
"Sure. So what about hitting the roads today in the evening? We will stay at a hotel in Traffic Chowk when we arrive at around 12 o'clock and then hit the Tinau bridge the next day to set off to Nuwakot."
"Sounds like a plan. I'm all in for it."
"Ok then let's hurry up. Need to pack some stuff and gear this time to take the measurements."
"We are not taking any surveyors?"
"In this preliminary phase? I rather not. First we have to strike a deal with the mayor. We might even do it tomorrow if the bureaucratic machine ran faster. If we don't have to wait another 5 to 10 days, we can then call our surveyors and they will mark the spot for the construction of our already designed space complex. We already have it sitting in our CAD folder at the office. Man, I wish physical stuff moved along at the pace of digital stuff. It always lags behind 5 years or more."
"That's how it has been since the beginning. So nothing to compare it with and complain about. Either major changes have to be injected to the reality software that determines causal flow of events or it will remain like this forever. Maybe in virtual reality, things will massively alter from what we are used to. This will surely have a far greater impact than what trying to improve on the physical layer will."

“Affirmative sir.”
“Stop talking like a robot.” Lasin squinted his eyes.
“Sorry, I was just excited to be finally doing what we wanted to do 5 years or so ago.”
“That time we didn’t have the capital. We even thought of using crypto to funnel in money from foreign investors.”
“That was definitely going to work. It was my idea after all.”
“I think not. It was a silly idea to use crypto in a country where it is banned.”
“I mean they cannot tax it or anything right? So who needs to disclose that we are using it?”
“Yeah, agreed.”
“Ok, let’s get to work then.”

Lasin went to his apartment and packed some clothes. It was all like the first day again. He was excited and had a plan this time. He was going to press on whatever came in his way. Nobody was going to tell Lasin nothing. His childhood dream was now inches away if luck was in his favor. ‘It could be right?’ Lasin thought. He was a sensitive guy. He didn’t like anybody talking against him. So in the end it was him who was his ship steward and he was going to sail right, sail amazing seas and sail through the tallest mountains. Now it was all in Lasin’s hands. The call from Niban came and Lasin hopped into Niban’s car waiting outside his apartment. Niban was the driver. Lasin sat in the passenger seat at the front. Niban had a coffee ready incase Lasin made a sleepy excuse to not listen to his talk.
“Where were you yesterday? I guess at Akitir’s.”
“Yeah, how do you know?”
“I just guessed. It’s a safe guess at any time.”
“Yeah, she invited me and I couldn’t say no.”
“She has lots of duties in front of her now. She must start to prepare herself from right now. She will be the launch contracts manager since right now I don’t think of a good enough person at the company to take the job. Don’t get me wrong but I don’t think this will add to her already overloaded duties.”
“She should be able to handle it all. She is a hardworking woman.”
“If you wanna drive then let me know. How’s the coffee by the way? I bought it at the canteen.”
“Really? They improved it so much. It feels like it's from a cafe.”
“Don’t get excited. I was joking. They never have coffee this good there. I bought it at the local starbucks.”
“Shit you got me. Starbucks has opened their cafes in Nepal. That’s so crazy actually.”

“Well, it opened just last month and thats not a good thing. Foreign companies have taken hold of our markets. Local coffee shops simply can’t keep up with their speed. They have a few more in Kathmandu and Pokhara. Butwal will get some in the near future.”
“When is Mcdonalds coming here Niban? I want to try the beef burgers they make. I tried one in Cali and found them delightful actually. Sorry by the way for eating a cow. Don’t believe that shit actually.”
“Neither do I but I don’t think I will be able to try a beef burger any time soon. I have really not got guts to try to eat a national animal you know. I mean how crazy it is? We have put the cow as our national animal and foreigners eat it.
“To be frank, I don’t think it is written anywhere that one should not eat their national animal or bird for that matter.”
“Well, I don’t have any strong opinion on that but I just think that one must not eat something that is a country’s emblem. But I don’t have anything against Mcdonald's serving beef burgers here. I don’t think that's going to be any worse than what is already happening here with buffalos. Cows are revered as gods but buffalos are treated as just fodder. Now that doesn’t make any sense at all.”
“Niban, I think that’s why KFC is generally more popular than Mcdonalds in all the countries. They don’t offend anyone by serving dinosaur birds to eat.”
“True that. Any whoo what do you think of the last general elections? Still the same old politicians got the majority of votes from their region. When will this change? Many people are so illiterate in the far west and far east regions. This saddens me to the core. If this improved then the whole country's economy would skyrocket since education uplifts the whole society. Skyrocket, which we are trying to do from tomorrow. Hope we will be successful.”
“Don’t be credulous. Who knows if the educated people still find other ways to halt the country’s economy by leaning even more towards the socialist ideology of the Marksist and communist philosophy. That type of communist union would be far more detrimental than a big portion of the illiterate populace not contributing anything to a country’s economy.”
“Your logic doesn’t make sense. If that was the danger then how are big capitalist countries like the US and Japan thriving on their oppressive and extremely unbalanced capitalist creed? How come Google and Microsoft’s headquarters aren’t stormed by large worker union groups? How are the oppressed not resisting the oppressors even though they are wholly aware of their jarring pay and rights violation?”
“That’s because although the pay is unequal and completely made up, everybody gets happy when they get promoted at their level. Nobody is stuck at their initial level forever. One day their pay gets increased and they become

happy and satisfied. Another not quite true but nonetheless an important factor is the fact that they are free to leave their job at any time they want provided they have saved enough to survive until they find their next job. Which if you ask me isn't really the case. One finds it very difficult to quit their stable job that's providing them food and basic amenities plus some luxury because they fear that the next job won't be on par with what they are already getting. So they just carry on with being oppressed by their employees."
"That makes sense. So why doesn't that argument work with Nepalese?" Niban asked with a curious face.
"The reason is because Nepal isn't rich enough to give time to time promotions to keep the blue color job holders happy. Also the quality of living they get there isn't on par with the rich countries. This all adds up quickly and if one day a union group storms one of the budding factories, the slowly growing market would suffer deleterious effects. Nowadays, protests can spread like wildfire. A small strike by some workers at one factory might lead to a massive protest across the country thereby pushing the entire nation into a temporary depression. If things aren't quickly amended after that, this might even lead to a long term economic stagnation."
"Now I feel the risk. Man economy is so tricky. It's not just about factories and products. It's about pay violations, worker feelings, etc. Do you want to take the wheel? I am feeling tired driving for 2 hours straight. Might need some sleep. I'm feeling tired today. It's 11 o'clock right now."

After parking their car on the side of the road, they exchanged their seats and Lasin took the wheel.
"Thanks, Lasin. We will reach it in 1 and a half hours now. Wake me up then ok. Don't sleep in the car. It won't be comfortable in the morning with all the back pains. Plus we need to eat dinner too."
"Don't worry. You have your rest."

Lasin drove fast. There were speed limits but no body and no speed guns to implement them. They reached their destination in just 45 minutes. He woke Niban up. Niban lifted his head and looked around with a drowsy face. He spoke,
"We arrived already?" After checking his phone's lock screen he continued, "It's just 11:46. At what time did you grab the wheel? 11 right. Man, you drove fast." He finished with a shocked face.
"I just wanted to reach early. Now that we are here before midnight, we might not have too much trouble trying to find a suitable hotel. Let's check that one. Ambika guest house or something."
"Lasin, damn. You should have driven slowly."

He got out of the car and they both opened the back hood of the car. After carrying their respective bags, they headed to the guest house. After checking in, they both crashed into their room and face slammed at separate beds throwing their shoes underneath.

To be continued…

Thank you so much for reading my book. I appreciate you putting aside your precious time to enter into my imagination.