When they consume more than they provide. They will be left behind.

-Dino

The Frontiers of Tomorrow: Problems on Earth and Projects to conquer the solar system

This is dedicated to the future and what we must do to contribute to a species amongst the stars.

I just want to make it clear, I'm just a 14 yo without Fortnite to keep him company, all I say is a vision from my eyes for a brighter future. I am no expert and therefore I do not have a concrete plan for all of this fall into place and turn into reality.

People tend to be pessimistic, climate change is a pressing matter, people accept that dying is a part of life, and therefore don't worry about how their actions may affect the world and humanity after their gone, people aren't excited for the progress we will make because their submit to the lie that is that they won't be there to experience it. Humans are divided into niche sub groups of apes that think they are better than each other and don't realise that we are all humans. We should live in

peaceful society not only for the sake of world peace but because war holds us back from what's really important, the prosperity of the human race and conquering of worlds. We are a primitive species that have a long way to go and that's exciting.

We must be definitely optimistic. We have so much to look forward to, we are on the brink of discovering new technology, we will be discovering new worlds. Kids are so optimistic and excited is because they know they have their whole life a head of them, they can be what ever they want as long as they try and are determined to do so. But as we get older we start to laugh at younger ourselves for wanting to be astronauts or multi-millionaires. As we get older we are told to be realistic, happy, un-ambitious, normal, and that we should focus on getting a good job and grades. We are trained to focus on reward over contribution, making us lazy, selfish.

In this book I talk heavily on contribution, contribution is the value you add and create to the world. Consumerism is how much you take advantage of the value created by others. Positive consumerism is the consumption of useful information that you will use to add value to other people's lives. Negative consumerism is the consumption of things you can't use to add value to others lives. Of course there is a place for consumerism. Without consumerism there will be no need to add value to others as they would reject it. We must all be careful with the way we consume. Negative consumerism must be kept to a minimum, positive consumerism must used with contribution.

Our meaning in life is for us to contribute to the world and consequently be rewarded with great wealth for the value we provide to the world and others lives. Think about Elon Musk, Bill Gates, Jeff Bezos. Their contribution to the world is great! They add value to our lives in scale and magnitude. When you buy a Tesla you aren't buying a car, you are rewarding the organisation for the value they provide to your life. You are rewarded by contributing however you must not be focused on the reward, you must be obsessed with how you can contribute to humanity and add value to people's life.

Our purpose is the great way we will dedicate their contributions towards. Our purpose is a compass, keeping you on course to your destination. Do you feel like your spending more time consuming rather than contributing? Work on something that helps you have a larger impact, contribute to the world contributions that others will appreciate.

Ultimately our purpose is to conquer the solar system, and eventually the observable universe. It is our duty as individuals to embrace and we must be addicted to positive contribution and get rid of with negative consumerism.

The Kardashev scale is a hypothetical framework proposed by the Russian astrophysicist Nikolai Kardashev in 1964 to measure a civilisation's level of technological advancement based on its energy consumption. A type 1 species can harness all the energy

of its home planet efficiently. A type 2 species can harness all the energy of its host star (the sun). A type 3 species can harness all the energy efficiently of its galaxy.

This ‘Manifesto’ is dedicated to bringing humanity to a type 2 species, a type 3 species is beyond our understanding of our 0.73 species. To accomplish taking our goal of conquering the solar system for the benefit of the human species, we must work on new technology (0 - 1) rather than doing what’s working already (1 - n). There will be exciting and fulfilling projects to work on such as the SkyHooks, Stellar engines, the Dyson Sphere and the eventual colonisation of alien planets of Mars, and the atmostphere of Venus.

PROBLEMS ON EARTH

War & Global Government:

We are struggling as a society on earth so how could we venture outward to the stars? One may say, and my answer to that is we have come a long way from tribes to cities, to countries. Humans have a desire to conquer and exert power for their own safety, this may lead to war. Humans easily categorise others to better understand them, which leads to racism, and sexism. Im not arguing that everyone should be the same, everyone is different from the moment they are born and our physical biology affect our mindset, however we must never believe that our sub category of human is better than any other, or that our beliefs are stronger than others, we must be united under the banner of humanity and Earth. The only people that will lack respect by society are the ones that consume more than they contribute to the world, this is easily repaired with contribution.

Ultimately we live in an anarchy, beyond the level of nations there are no one else to look to for help to level the conflict and keep stability. This leads to competitive arms races.

The problem with the UN:

The UN is supposedly the solution, however it has many flaws such as the over powered veto problem. Leading to important matters to be discarded as long as it evokes insecurity of the veto holding members - Russia, U.S.A., U.K., China, France. This leads to minimal change and un-acted upon conflicts, such as the Ukraine War.

1. Bureaucracy and Inefficiency: The UN due to its bureaucratic structure, its ability to respond quickly and effectively to crises is hindered. Decision-making processes can be slow and cumbersome, leading to delays in action.

2. Political Gridlock: The UN General Assembly, Security Council, and other bodies can be paralysed by political disagreements among member states. Veto power wielded by the five permanent members of the Security Council (United States, Russia, China, France, and the United Kingdom) can prevent meaningful action on critical issues.

3. Lack of Enforcement Mechanisms: The UN lacks the means to enforce them effectively. This undermines the credibility of the organisation and limits its ability to address conflicts and human rights abuses.

4. Inequality among Member States: There is a significant power disparity among member states, with some wielding much more influence than others. This leads to unequal treatment and representation within the organisation.

5. Limited Scope of Authority: The UN's authority is limited by the sovereignty of its member states, which can prevent it from intervening in internal conflicts or addressing certain issues, such as human rights abuses, without the consent of the affected state.

6. Failure to Prevent Conflict: Despite its mandate to maintain international peace and security, the UN has been criticised for its failure to prevent or resolve conflicts in various regions, such as Syria, Yemen, and South Sudan.

7. Reform Challenges: Efforts to reform the UN to make it more efficient, transparent, and representative have been slow and contentious. Reforms often face resistance from member states reluctant to cede power or resources.

The Syrian civil war highlights the United Nations' difficulties. UN responses have been slowed by bureaucratic issues, leading to delays in helping those affected. For example, getting humanitarian aid to people has been delayed due to bureaucratic hurdles, worsening civilians' suffering.

Political disagreements within the UN Security Council have made matters worse. Veto power, especially from countries like Russia, has often blocked crucial decisions needed to resolve the conflict peacefully.

Moreover, the UN lacks effective ways to enforce its decisions, making it hard to address conflicts like the Syrian civil war. Despite condemning atrocities, there are no strong enforcement measures, allowing violence to continue.

Power imbalances among UN member states have also affected the UN's response. Certain influential members, like Russia and the United States, have had more say in setting priorities, making it challenging to reach consensus and cooperation.

Additionally, the UN's ability to intervene decisively is limited by the sovereignty of member states. The principle of state sovereignty has been used by the Syrian government to resist outside help, making it hard for the UN to facilitate a peaceful settlement.

Despite its role in maintaining peace and security, the UN has faced criticism for its failure to prevent or resolve conflicts like Syria's. Efforts to reform the UN have been slow and contentious, with member states hesitant to give up power or resources. This resistance has made it difficult for the UN to adapt and respond effectively to crises like the Syrian civil war, showing the need for meaningful change

As I have said we must set aside our differences and appreciate we are all the same species, A global government would be our solution, without the interests of major human sub groups but of the collective interests of humans, The United States of Earth would not delegate unique powers to the strongest nations but prioritise the collective interests of all nations. This may lead to a power imbalance towards a greater number nations with similar ideologies. To combat this, before we create such a great organisation we must bring developing countries to the level of advanced nations so that everyone has the privilege of focusing their forces on space exploration and new technology.

Education:

First we must understand from who's prospective we are discussing education. A student would like more free time and less stress or pressure. A serial entrepreneur wants efficient employees. A nation wants obedient workers. Others want individuals that can provide and contribute to the market in hopes to improve everyones life. The problem is, that you can't have every pretending to be a startup hustling, contribution making guru, because if everyone wants to do something so impactful then all the meaningless jobs won't be done. If your local bin men create a company who will take your bins away? Luckily there many un-ambitious people to do this type of work. A society needs focused leaders and quiet follower otherwise their civilisation doesn't get along. We will take the view point of a civilisation that needs to create both separately ambitious individuals and complacent workers for a space faring future.

Education is a crucial part of one's life, some nations take it seriously some don't. Some schools breed proud nationalists and others breed confused scholars.

There are 2 types of individuals: Focused, purposed driven, motivated, leaders and un-ambitious distracted, lost, followers. The Chinese education system works at separating the two, poor performing students get put in vocational schools that work on their skills to

get employed, whilst the rest go on to regular schools and do their Gaokao to attempt to go to university.

By offering both academic and vocational pathways, the Chinese education system addresses the diverse needs and talents of its student population, ensuring that individuals can pursue educational and career opportunities aligned with their abilities. This approach contributes to the overall effectiveness of the system by maximising the potential for success and fulfilment among students.

Crucially an effective education system does not keep students in mind they instead focus on developing effective workers for the prosperity of others. There will still be low skilled jobs that someone will have to do. There will always be unfulfilling work to be done for those that are lost. Only a few motivated, focused individuals will go on to become entrepreneurs and contribute the majority to society. The 80/20 rule states that for only 20% of input will account for 80% output.

No one is born to be motivated, focused, and ambitious. It is our surroundings and our early experiences that mould entrepreneurs.

An effective education system would focus most of its energy on the top 20% and focus the last 80% on becoming effective employees. This may sound cruel but the truth is, that some people aren't grateful for the opportunities they are given, most teens work hard to make money in video games than in real life. This however is not the fate for everyone. *There are some that are intellectually curious, creative, resilient and with other humans respectful, warm-hearted, and team players*. Those are the types of people we should develop in our education system.

In conclusion there are 2 types of individuals. Ambitious, focused, optimistic people. And unambitious distracted, pessimistic people. Unambitious people are followers. Whilst the ambitious lead others. Its extremely difficult to teach someone to be an ambitious, focused, optimistic person. Instead we must expose them to experiences that give them that drive to accomplish. 20% are driven, 80% are lost. It costs a lot of energy to turn a lost person into a driven person so we cannot have the distracted bring the focused individuals down.

Individuals that wont contribute to the prosperity of humanity cannot be fed.

Society:

Society must reward innovation, contribution and technological advancement. Society must reward individuals that contribute towards the purpose of humanity, those who fulfil their purpose and those who add value as much as possible.

Society must disrespect those who do not wish to contribute, we may not take away their human rights however they must feel inferior and disapproved in order to coerce them into a more productive mindset.

On the topic of equality, people should not be treated differently based on their race, gender, sexuality or choice of work. The only factor towards the amount of the respect an individual receives is correlated towards the value they have contributed to the world, or the potential value you promise to provide to the world. It does not matter who you are, if you do the job better than the least performing individual in the organisation you will be apart of it.

This may lead to work places being less diverse in favour of higher performing individuals. However it is important to understand, the only bias is in favour of those who work better than others.

Respect will be granted to those who have contributed more to the world for the greater good. This stands true because contribution is rewarded with wealth.

Say Elon Musk, he is the un disputed richest man in the world for all of his contributions, Tesla, Solar City, Space X, the Boring company and recently Twitter to name a few are the ways he has decided to contribute to the world. These companies have most likely impacted the way you have lived or indirectly improved your lives. If you have interacted with his companies you have rewarded him for his actions in return for the

value he provides, this is someone worthy of respect. Respect is usually rewarded to those with wealth who have earned it in a positive way.

Us as humans tend to respect and love those who have contributed the most to our lives, our parents are most likely the people we look up to no matter what because they are ultimately responsible for your existence. If you aren't, perhaps you are ungrateful.

This world is an extreme mystery to all of us. For we know nothing. We must not strive to contribute to the world and add value to be rewarded, we must contribute to give back to all the people in our lives that have made it a little bit better and to show gratitude for the position we are in life. If you become a extremely passionate contributor you will become a extremely wealthy individual.

Society is brilliant at coercing individuals as society is where crucial events occur and where individuals persuade others. A brilliant example is the San Francisco Bay Area well known for its entrepreneurial/contributive society, people their are often persuaded by the people around them into entrepreneurial ventures, purely by the environment.

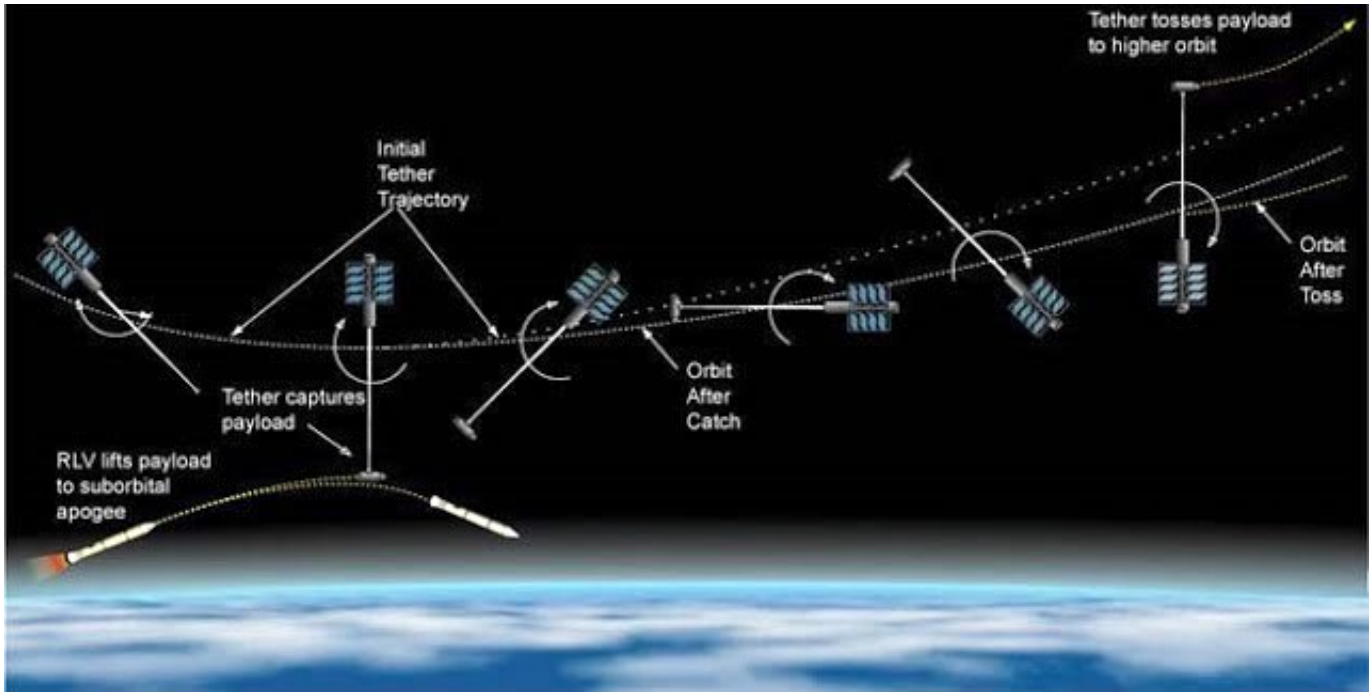
Perhaps we take a look at this the other way and someone lived in a society oriented around drugs and violence, that individual will eventually be persuaded by their environment into those treacherous spheres of life.

An effective society is focused around contribution and technological advancement. An effective society rejects the things that make their contributions less effective.

Trans-humanism:

You may believe in the dogma that is that death is a part of life and is necessary and that life is not complete with out dying. This is false, we must be scared of dying. We must be scared that we may never see best the world has to offer. Why would you want to leave? Technology will provide.

STEPS TO COLONISATION



The Space Hook:

A skyhook, a theoretical structure extending from Earth into space, aims to enable spacecraft or payloads to rendezvous in orbit, using its rotation to launch into space or return to Earth without traditional rockets.

VISUALISE:

Space Hooks are small tools used in space to attach objects securely in zero-gravity environments. They work like miniature grappling hooks, allowing astronauts to fasten items to surfaces without the help of gravity. These devices have locking mechanisms to keep objects stable and prevent them from floating away, helping astronauts organise equipment, anchor themselves, or secure payloads during space missions.

Sky Hooks are crucial and is an essential in order to colonise space.

SkyHooks will reduce the cost of sending payloads into space. Traditional rocket launches are expensive due to the large amount of fuel required to overcome Earth's gravity. With a skyhook, spacecraft could be gradually lifted into orbit using much less energy, resulting in significant cost savings.

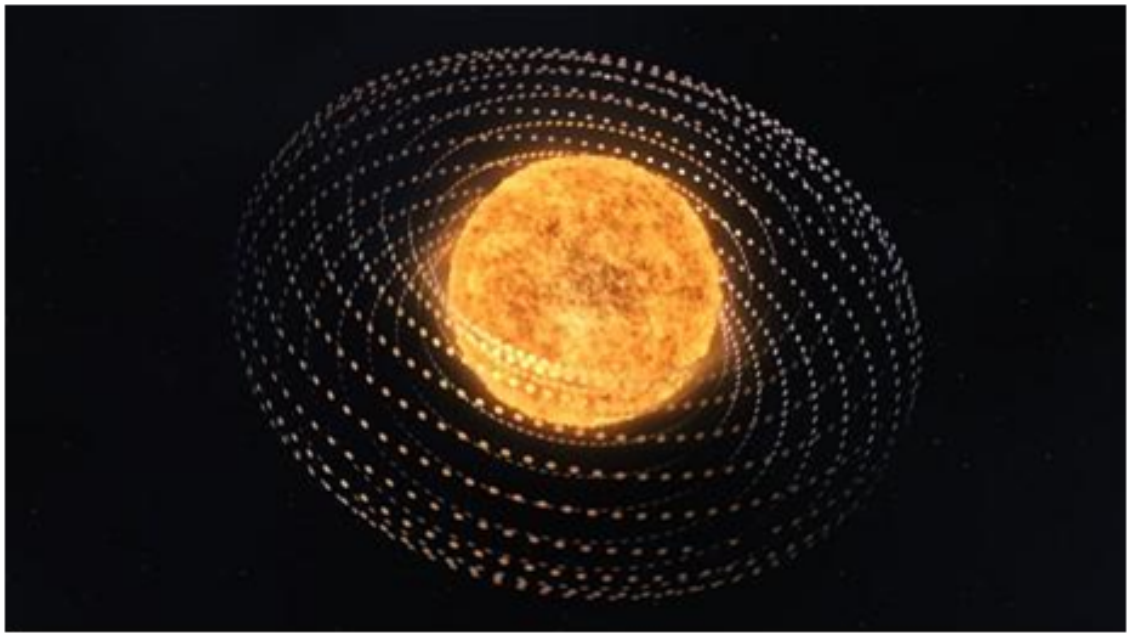
Traditionally launching from the surface of the Earth requires powerful rockets and careful planning to avoid obstacles and populated areas Skyhooks could provide a more accessible and convenient way to reach space, allowing for more frequent launches and easier access to resources in orbit.

Original rocket launches produce harmful emissions and contribute to pollution. Skyhooks would provide a more sustainable alternative by using electricity to power their ascent vehicles, reducing the environmental impact of space exploration.

Skyhooks could be used for a variety of purposes, including satellite deployment, space tourism, and even interplanetary travel. Their ability to provide a low-cost, reliable means of reaching orbit could open up new opportunities for exploration and commerce in space.

Launching rockets from the Earth's surface carries risks, including the potential for explosions or malfunctions. Skyhooks could provide a safer alternative by allowing spacecraft to be launched from a stable platform high above the ground, reducing the risk to human life and valuable equipment.

Without technologies like skyhooks, space colonisation faces significant hurdles that could impede its flourishing. The high cost of traditional rocket launches limits accessibility and constrains the transport of people and resources into space. This financial barrier, combined with limited launch windows and safety concerns, poses challenges to widespread adoption. Additionally, without efficient transportation methods, colonies may struggle to sustain themselves due to resource constraints. Skyhooks could offer a more accessible, cost-effective, and sustainable alternative, mitigating these challenges and enabling broader participation in space exploration and colonisation.



The Dyson Sphere

Possibly the most crucial structure we will make to become a type 2 species on the Kardashev Scale

For a quick definition a Dyson sphere is a theoretical megastructure proposed by physicist Freeman Dyson in 1960. It's a hypothetical concept where an advanced civilisation constructs a massive shell or series of structures around a star to capture its energy output. This energy could then be utilised for various purposes, such as powering advanced technologies or sustaining large populations. While it remains a speculative idea within theoretical physics and science fiction, a Dyson sphere represents an intriguing concept for harnessing the energy resources of a star on a colossal scale.

It sphere would harness the energy of a star by surrounding it with a massive shell or series of structures designed to capture and collect the star's emitted radiation. This radiation primarily consists of light and heat. The structure would likely incorporate vast arrays of solar panels or other energy-collecting devices, positioned to intercept and absorb as much of the star's energy output as possible. Once captured, this energy could be converted into electricity or utilised directly for various purposes, such as powering advanced technologies or supporting the needs of our large, spacefaring civilisation.

Our Dyson sphere, if built, could revolutionise human civilisation by providing virtually unlimited energy from capturing a star's output. This sustainable energy source would accelerate technological advancement, enable space colonisation, and end energy scarcity, leading to global prosperity and a brighter future. With abundant energy, we could tackle challenges such as climate change, poverty, and resource scarcity, while

unlocking new frontiers in science, exploration, and innovation. Overall, a Dyson sphere holds the potential to elevate humanity's quality of life to unprecedented levels and ensure a sustainable future for generations to come.

Without, humanity would face significant challenges including persistent energy shortages, hindrances to technological advancement, limitations in space exploration, environmental degradation, and exacerbated global inequality. The absence of abundant energy would lead to continued dependence on finite and environmentally damaging resources, potentially triggering energy crises, economic instability, and geopolitical conflicts. This would impede progress in addressing pressing global issues such as climate change and resource depletion. Moreover, without the energy resources necessary for space colonisation and exploration, our ability to reach other planets and ensure long-term survival as a species would be compromised. Additionally, unequal distribution of energy resources could deepen social and economic disparities, exacerbating social unrest and geopolitical tensions. Overall, the lack of a Dyson sphere would leave humanity vulnerable to interconnected challenges, threatening our ability to build a prosperous, sustainable, and equitable future.

Asteroid Mining:

Asteroid mining is the process of extracting valuable minerals, metals, and other resources from asteroids, which are rocky bodies that orbit the Sun. These asteroids can contain a variety of valuable materials, including precious metals like gold, platinum, and rare earth elements, as well as water and other volatiles such as hydrogen and oxygen. The concept of asteroid mining involves sending spacecraft to rendezvous with asteroids, extracting the desired resources using various mining techniques, and then returning the materials to Earth or using them in space for construction, manufacturing, or other purposes. Asteroid mining holds the potential to provide a sustainable and virtually limitless source of raw materials for use in space exploration, colonisation, and industry, while also reducing the need for environmentally destructive mining practices on Earth.

Asteroid mining involves sending spacecraft to rendezvous with identified asteroids rich in valuable resources, conducting surveys to assess composition and resources, and employing various mining techniques such as drilling or robotic extraction to extract materials. Once mined, the spacecraft processes the resources onboard and transports them to their destination, whether it's returning them to Earth or utilising them in space for construction and manufacturing. Successful missions may lead to further mining operations on other asteroids, potentially providing a sustainable source of raw materials for space exploration and industry.

Asteroid mining has the potential to greatly improve life on Earth and beyond for several reasons. Firstly, it offers access to vast quantities of valuable resources, including

rare metals and minerals, which could significantly bolster global economies and industries. This could lead to technological advancements, job creation, and increased prosperity worldwide. Additionally, asteroid mining will reduce our reliance on environmentally destructive mining practices on Earth, mitigating the negative impacts of resource extraction on the environment and local communities. Moreover, the availability of resources from asteroid mining will support the expansion of space exploration and colonisation efforts, offering humanity new frontiers for scientific discovery and potential habitats beyond Earth. Overall, asteroid mining holds the promise of ushering in a new era of sustainable development, technological innovation, and space exploration, making the world a vastly better place for future generations.

Without asteroid mining, the world would be significantly worse off, facing a multitude of challenges and missed opportunities. Firstly, economies would struggle due to limited access to essential resources, leading to increased competition, economic instability, and potential conflicts over scarce materials. This scarcity would also hinder technological progress, as industries reliant on these resources would stagnate, stifling innovation and hindering advancements in medicine, technology, and space exploration. Additionally, without the prospect of asteroid mining, environmental degradation on Earth would escalate as we continue to exploit finite resources through destructive mining practices, exacerbating pollution, habitat loss, and climate change. Furthermore, the lack of access to extraterrestrial resources would confine humanity to the confines of Earth, limiting our ability to explore and colonise space, and potentially leaving us vulnerable to existential threats with no backup plan for survival. Overall, the absence of asteroid mining would plunge humanity into a downward spiral of scarcity, stagnation, and environmental devastation, condemning us to a bleak and uncertain future.

Mars:

Mars colonisation involves establishing permanent human settlements on the Martian surface, beginning with robotic missions to assess potential landing sites and resource availability. Upon arrival, settlers would construct habitats using local materials and implement life support systems to sustain themselves in the harsh Martian environment. Sustainable energy sources such as solar power would be utilised, and local resources would be harnessed for manufacturing and fuel production. Scientific research would play a crucial role, with opportunities to study Martian geology, climate, and potential for life. As colonies grow and expand, they could become self-sustaining, paving the way for a permanent human presence on Mars and inspiring future generations of explorers.

SpaceX, led by Elon Musk, is a pivotal in the quest for Mars colonisation, driven by its revolutionary Starship spacecraft. With its focus on developing fully reusable and cost-effective transportation systems, SpaceX aims to make Mars colonisation achievable and sustainable. Through ambitious plans for crewed missions and the establishment of a self-sustaining colony on Mars, SpaceX is pioneering advancements in rocket technology, spacecraft design, and life support systems essential for interplanetary travel. Beyond technical innovation, SpaceX's visionary leadership has inspired global interest and support for Mars colonisation, sparking a dialogue about the future of humanity in space and the imperative of becoming a multi-planetary species.

Mars colonisation promises a plethora of benefits that could revolutionise life on Earth and beyond. Firstly, it offers a crucial backup plan for humanity, providing an escape from potential global catastrophes such as asteroid impacts, pandemics, or environmental collapse. Additionally, the technological advancements and innovations required for Mars

colonisation would drive progress in science, engineering, and industry, leading to economic growth and job creation worldwide. Moreover, the establishment of Martian settlements would open up new frontiers for exploration and discovery, inspiring generations and pushing the boundaries of human achievement. Furthermore, the development of sustainable living systems and resource utilisation technologies for Mars could be applied to address pressing challenges on Earth, such as climate change and resource scarcity. Overall, Mars colonisation holds the potential to propel humanity into a brighter future, offering hope, opportunity, and resilience in the face of uncertainty.

Conclusion:

The projects I have presented in this book of a project are useless without execution. We must conquer the solar system to fulfil our purpose as humans and to eventually explore out to the observable universe. We live in a crucial time for space exploration and if we don't make it a priority and focus on fighting petty wars we will never venture out towards the stars and we will eventually let natural disasters destroy us all.

Im extremely passionate about this project because I am a huge advocate for progress and contribution. You may be thinking who is this kid to talk about contribution if he has done absolutely nothing in this world. My response is that I completely agree, I have made no contribution although I hope this small contribution helped the world a little bit.

There is so much more to expand on within each topic. I wish I could talk about it more. There is so much more I would like to speak about as well, there is potability for biofuels & flying cars.

This project will also play as a guide for my future self. Hopefully with more contributions under my belt. I truly feel that its possible to make all of these things happen, I want to make it happen.