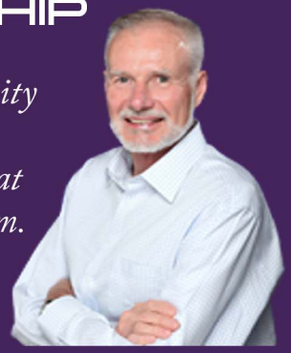
HUMANITY'S STARSHIP



The "Starship" we need to transport humanity from primitives to the stars is a society that supports our physical nature—one that promotes reality, reason, and individualism. Technology will follow.

JJ Kelly, the former CEO of US Telecom and a recognized founder of the Telecommunications Revolution, points out that humanity rose above animals by evolving the faculty of reason and creating technology. Technology is now advancing at an exponential rate. Man's next evolutionary leap is to merge our biology with our technology to become a new hybrid species with radically extended lifespans in the stars. But *first*, we must learn how to sustain our free society.

JJ applied reason to what we know about the universe's physical laws, the nature of things that exist, historical facts, and the critical thinking of specialists to isolate and identify what he calls the "Six Critical Processes." These fundamental principles answer life's biggest questions: "What is reality and the reason I exist?" "How do I know it?" "How should I live my life?" "How should people deal with each other?" "Where are evolution and technology taking humanity?" and "How do I achieve happiness?"

www.INTELLOPY.com/STARSHIP

FUTURE COACH LLC.COM

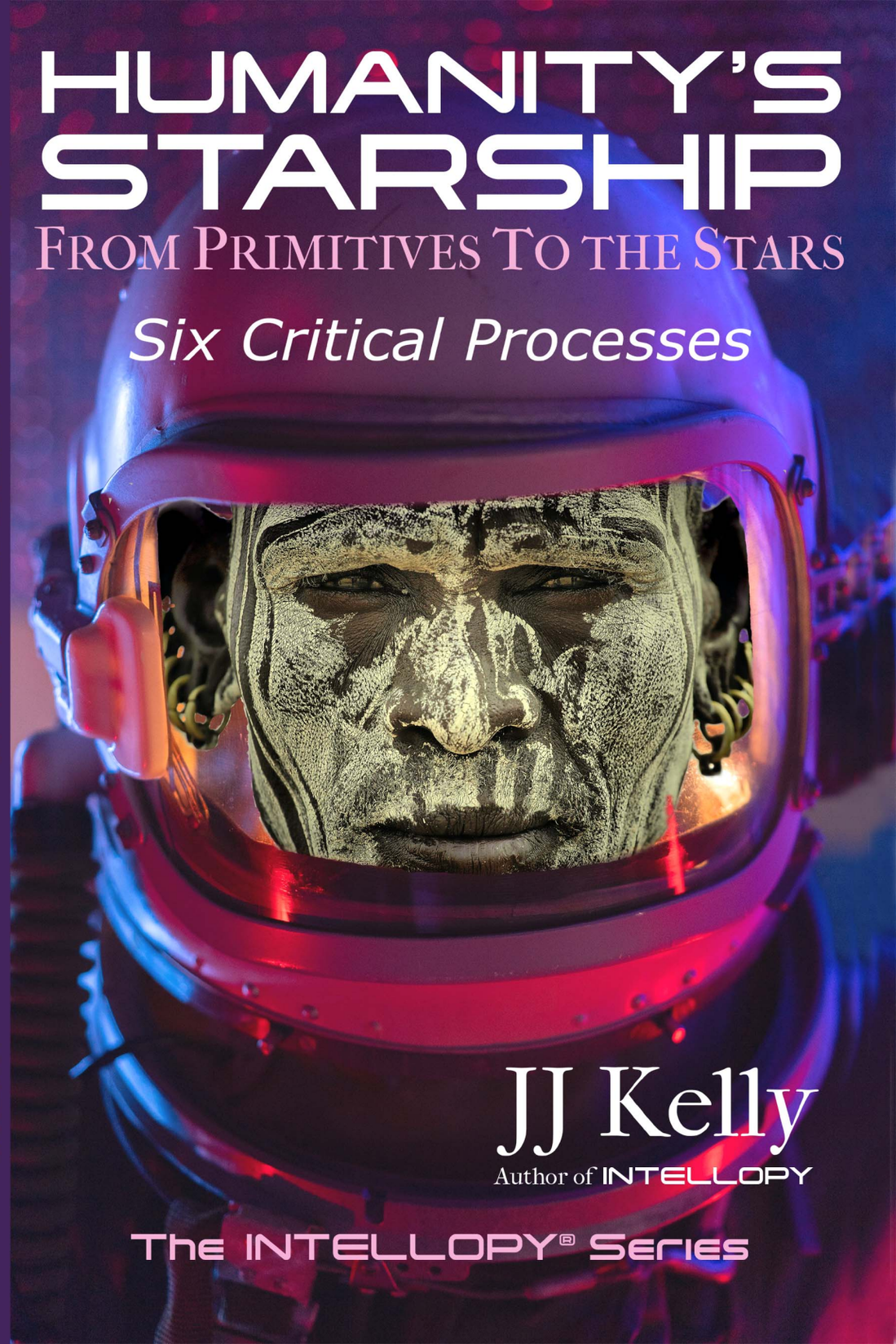
HUMANITY'S STARSHIP - *Six Critical Processes*

JJ KELLY

HUMANITY'S STARSHIP

FROM PRIMITIVES TO THE STARS

Six Critical Processes



JJ Kelly

Author of INTELLOPY

The INTELLOPY® Series

HUMANITY'S STARSHIP

From Primitives To the Stars

Six Critical Processes

JJ Kelly

The INTELLOPY® Series

FUTURE COACH LLC.COM

ISBN: 979-8-218-33524-3
Publication date: January 25, 2024

Published by Future Coach LLC
411 Walnut Street Unit 6464, Green Cove Springs, FL 32043
www.FutureCoachLLC.com

Cover design by Author
Interior design by Author
Printed in the USA

20240112

DEDICATION

To my grandchildren—Blake, Bay Lou, Joe, and Remi:

You were born a blank slate and must learn the knowledge discovered and accumulated in society. Much of what today's society will try to teach you is false—not based on reality—and can cripple your mind.

I share my knowledge of how the world works—principles based on reality—so you can distinguish truth from falsehood and navigate turbulent change toward your heroic vision.

With love,

Daddo

CONTENTS

Introduction		1
Ch. 1	Antiheroes	5
Ch. 2	Evolution	10
Ch. 3	Plastic Brain	16
Ch. 4	Conceptual Thinking	26
Ch. 5	Technology Cycle	35
Ch. 6	Condescension and Paternalism	44
Ch. 7	Individualism	47
Ch. 8	Ancient Greeks	58
Ch. 9	United States	64
Ch. 10	Ivory Tower Cycle	67
Ch. 11	Rise of the Machines	76
Ch. 12	Positive Action	82
Ch. 13	Happiness Skills	97
Endnotes		111

INTRODUCTION

How do we regain the exuberant optimism, sense of adventure, and confidence in our capabilities that Americans had in the young United States?

Today's public discourse is unproductive. Declared *causes* of our society's problems are instead *consequences* explainable by fundamental principles derived from facts of reality—*if* they are known. For most of us, thinking without identifying underlying principles is a deficiency in our education. For some, it is to avoid facing facts contradicting a long-held belief they *feel* is true. I hope this book will give the reader the motivation and the *courage* to seek the reality-based principles beneath every critical issue.

Humanity rose above animals by evolving the faculty of *reason* and creating *technology*. Technology is now advancing at an exponential rate. Humanity's next evolutionary leap is to merge our biology with our technology to become a new hybrid species with radically extended lifespans in the stars.

Today's rapid explosion of technology proves *two truths*. First, we live in a universe where things have specific natures and behave according to physical laws. Second, humans with the faculty of reason can discover the nature and behavior of things and use that cause-and-effect knowledge to *create*—to modify matter for our purposes. Without the truths of *reality* and *reason*, there would be no electric lights, airplanes, smartphones, or MRI machines.

For 99% of humanity's history, we relied on fantastical superstition as our only source of knowledge and guide to action. Very recently, instead of mysticism, we began applying reason to facts of reality to advance science and modern technology. However, we are struggling to do the same to advance our still primitive society. Irrationality, condescension, and paternalism remain prevalent, not inborn but out of ancient ignorance.

We now know that we are "rational animals," but after two recent attempts, we have yet to create an enduring society based on the fact of our nature and the individual rights that derive from it. Too many today are guided by fantasies and feelings over facts and reason, and consequently, they accept the tenets of force, sacrifice, and collectivism. And it is getting worse, not better. Technology will soon radically extend our lifespans, but this will be a curse if our free society collapses into totalitarianism.

The "Starship" we need to transport humanity from primitives to the stars is a society that supports our physical nature—one that promotes reality, reason, and individualism. Technology will follow.

I am a generalist with broad knowledge and experience in multiple domains. A Catholic school education plus an aptitude for math, science, and technology put me on a quest to discover whether the origin and meaning of life were *mystical* or *objective*. It took me over thirty years of applying reason to what we know about the universe's physical laws and the nature of things that exist, historical facts, and the critical thinking of specialists to isolate and identify what I call the ***Six Critical Processes.*** These fundamental principles answer life's biggest questions: "What is reality and the reason I exist?" "How do I know it?" "How should I live my life?" "How should people deal with each other?" "Where are evolution and technology taking humanity?" and "How do I achieve happiness?"

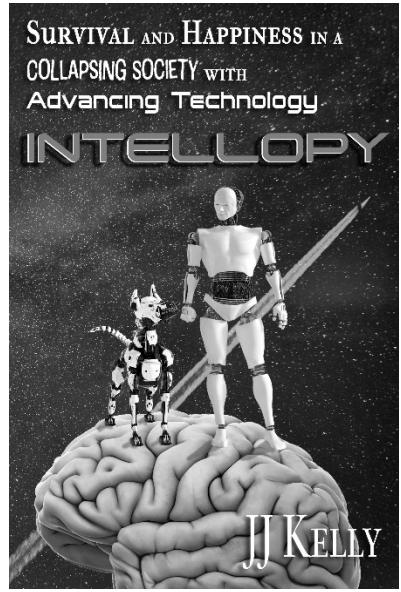
Unfortunately, while easy to understand, this information is not taught in school. I wrote everything I learned in a book for my grandchildren so it will be there to help them navigate turbulent change ahead if I am not. I am happy to share what I learned with you, and you can decide if it makes sense.

This INTELLOPY® Series book, ***HUMANITY'S STARSHIP***, complements the comprehensive original text, ***INTELLOPY: Survival and Happiness in a Collapsing Society with Advancing Technology***.[1] This book summarizes the ***Six Critical Processes***, which, along with the ***Eight Transcendent Technologies*** driving our future, are fully presented in *INTELLOPY*.

It is with humility and gratitude that I credit, reference, and recommend the intrepid reality-oriented thinkers who wrote before me, making my integration of their ideas with mine possible.

Thank you for being one of the courageous *New Intellectuals* we desperately need who think in terms of principles, applying reason to facts of reality as their source of knowledge and guide to action.

JJ Kelly



INTELLOPY is a 600-page masterwork identifying the ***Six Critical Processes*** and ***Eight Transcendent Technologies*** of our human experience: individual, societal, technological, past, present, and future.

Available on Amazon

www.INTELLOPY.com

CHAPTER 1

ANTIHEROES

We want to be optimistic that humanity can solve the problems of this world, extend our lifespans, and go to the stars. Yet, with all the craziness in society, we wonder if we're smart enough to have a shining future. Looking for answers, we will examine the Six Critical Processes driving the outcome. To set the context, let us consider the following archetypical characters.

The Trespassers

The "**Brute**" —believes his superiority over others is through strength. The *survival of the fittest* makes sense to him. Humans are animals, so he feels using brute force to control anyone weaker than him is OK. For example, your choice of any dictator, murderer, or street thug throughout history.

The "**Mystic**" —believes his superiority over others is through his claimed knowledge of what is outside reality. He has learned to use others' concern over the afterlife against them. He uses rhetoric to amplify their fears of the unknown and then defines "morality" mystically to manipulate them. For example, oppression by church dogma and the encouragement of self-torture as the path to sainthood during the Dark Ages. Also, Jim Jones of the infamous 1978 Jonestown Massacre in Guyana.

The "**Do-Gooder**" —thinks he has the ability and the duty to care for others he believes need his help. He patronizes others as if they were children. He does not expect them to take responsibility for their lives. Their dependence on him feeds his paternalism and his own "goodness." For example, those who encourage welfare and homelessness in the streets by providing free food, clothing, shelter, and drugs instead of physical, mental health, and job rehabilitation and who are tolerant of street crime.

The "**Bureaucrat**" —believes his superiority over others is through his government position. He thinks the government must control all societal functions, and *his* work is essential. He uses laws, regulations, and the threat of government force to exert control, primarily to maintain his position. For

example, United States government officials who pass or enforce laws or regulations outside the Constitution's enumerated powers explicitly granted to the federal government.

The "**Pedagogue**" —believes his superiority over others is through his scholarship. He chooses which ideas to impart to his students as a teacher or professor. Instead of teaching them how to use their faculty of reason to connect their minds to facts of reality to form their conclusions, a skill he never acquired, he teaches them an ideology that will cause them to accept and perpetuate his worldview—which he got from his teachers. For example, most of the staff and faculty at America's universities.

The "**Tycoon**" —believes his superiority over others is through his business acumen and wealth-building success. He has become accustomed to giving orders and receiving accolades from his extensive business organization. He thinks those who work for him do not have his vision, decision-making skills, or risk tolerance and, therefore, require his direction. Feeling self-important, he leverages his wealth and economic position to exert control over others outside his business. For example, CEO activists who leverage their economic power to promote climate change agreements, critical race theory, transgenderism, and other "woke" ESG (environmental, social, and governance) agendas.

The "**Celebrity**" —believes his superiority over others is through his popularity as a movie star, pop star, athlete, etc., and the wealth that fame has brought him. He thinks this qualifies him to leverage his star status and wealth to impose his opinion on others regarding political and economic matters. For example, Jane Fonda's support and meeting with the Vietcong during the Vietnam War and Sean Penn's praise and involvement with Fidel and Raul Castro in Cuba and Hugo Chavez in Venezuela.

The "**Technocrat**" —believes his superiority over others is through his knowledge of advanced technology used by others. Because his technology adds excellent value to users' lives, he thinks he is entitled to embed his values in the technology he designs and implements. For example, any computer programmer creating algorithms that limit what information people can see or

transmit or what transactions they can conduct—Mark Zuckerberg of Facebook, Jack Dorsey of Twitter.

The "**Global Financier**" —believes his superiority over others is through his family's accumulation of financial power on a global scale. Amoral in financial deals—considering only the likelihood of gaining wealth and power—he often funds both sides of conflicts he instigates. He engineers and uses monetary debt, fiat currencies, inflation, monopolistic control of resources, war, and other crises to gain control. He engineers the appointment or election of the leaders of businesses, the press, government agencies and heads of state and then directs them from behind the curtain. For example, the Morgan family of Wales prospered from the slave trade in early America and conspired with the Rothschild family of Germany to create the Federal Reserve banking system.[2]

Their Common Trait

What do these archetypical antiheroes all have in common?

They believe they are entitled to make decisions for others, trespassing on others' personal lives.

The following chapters explain why they think this way, how this came to be, and what we must do to improve the prospects for our future.

Observations

• The Brute and the Mystic typically are a team. The Mystic gives the Brute the "moral sanction" he needs to justify his use of force on others. The Brute provides the "muscle" the Mystic needs to impose his will on those who aren't "believers." For example, all the warring tribes throughout history, the conquering Crusades of the Christian Latin Church in the medieval period, and the ruling clerics and totalitarian dictators in today's Middle East.

• The feudalism of the past with armed castles and their conjoined monasteries exhibited condescension and paternalism clearly in a hierarchy of secular and religious royalty, lords/vassals, surfs, and peons.

• The antiheroes often exhibit a combination of archetypes. For example, the founders of technology mega-corporations such as Facebook and Twitter can be both Tycoon and Technocrat, and many are part Do-Gooder.[3]

• To succeed, a business leader must exhibit a single-minded pursuit of rational self-interest.[4] Objective dominance over the competition in the *economic* domain is moral. Coercion of others in the *political* domain—trespassing on their right and responsibility to use their mind to guide their life—is immoral.[5]

• Global Financiers, accustomed to societal manipulation on a global scale for centuries, pursue a "One World Order" socialist agenda with themselves as the elite top layer. They strive to extract for themselves all the wealth created by the world's producers. Shying from public view, they act in concert through secret agreements at private meetings. They wield their power through functionaries of the other archetypes at all levels in the public and private sectors.[6]

• When any of the anti-heroes gain upper-tier power, they can become captivated by the One World Order worldview. Free nation-states, especially those with written constitutions, are impediments to their goal. They aim to create anarchy by tearing down the world's borders and the fabric of an ordered society so that the people will accept their strong hands in restoring order. Then, they can implement their vision of a two-class global society.

• Because these antiheroes believe they are more important or intelligent than others, some develop a strong sense of *paternalism*. They think *absolutely* that the masses—people pursuing their rational self-interest in a free market—cannot comprehend society's problems and are incapable of finding solutions—but they are. As our shepherds, they must herd us to safety for our own good. Their behaviors exhibit the central tenet of totalitarianism and lead to central planning and socialism.

• None of these antiheroes is a "leader" who effectively communicates a rational goal and the reality-based facts and principles beneath it; principles that instill first *rational* and then *emotional* "buy-in" by individuals who have a

choice, who become persuaded and then *choose* to follow. Instead of leaders, these antiheroes are *authoritarians* who want to *limit* choices.

• When an antihero first experiences the thrill of his power over others, his ability to limit their choices, he becomes intoxicated with power. He turns his ambitions toward gaining more of it. He wants to force others to do whatever he thinks is "right."[7]

• A hierarchy of intelligence, skills, and abilities certainly exists among individuals. Therefore, some will be more productive achievers than others. This does not alter the fact that to live according to his nature, each person must use his mind to make his own life choices regardless of his level of intelligence or his economic or political status, and he must be left free to do so.

• People who do not accept the responsibility for using their minds to make their own life choices or weren't taught how to do so will lead sub-human animal-level lives and be herded like sheep by the world's antiheroes.

• While there are *heroes* in these roles with worldviews based on *individualism* and who exhibit rational leadership, there are too many antiheroes, and their numbers and impact are increasing.

• The anti-heroes are not as powerful or wise as they think, deluding that they can solve society's problems. Products of a primitive legacy, they have not learned the true nature of human intelligence and the fundamental principles beneath a person's and a society's flourishing. By learning about the *Six Critical Processes*, you will be better connected to reality than they are. Modern, rational heroes, not primitive antiheroes, will build the *Starship* Society we need to achieve our heroic vision and reach the stars.

You might be thinking: Hasn't condescension and paternalism been a part of human nature throughout history? How is it holding back our evolution? What must replace it for us to advance? We must set aside our "feelings" and apply "reason" to facts of reality to see if we can find the answers.

CHAPTER 2

EVOLUTION

CRITICAL PROCESS #1- Explains why the universe's physics advances complexity, life, consciousness, and intelligence. Answers: *Why do I exist?*

As "things" that exist in reality, humans have a specific nature and function according to it. However, an objective explanation of how our "conceptual faculty" works wasn't described until the mid-twentieth century. There has been insufficient time for the light of this new knowledge to spread throughout society, which is still in the darkness of primitive ignorance. To begin on the path to understanding, we must identify why evolution's natural selection process evolved "reason," our form of consciousness. We can then project our evolutionary trajectory.

A "Real" Reality

Your *worldview* will be what you believe is true, which means "real." These are the ideas used by your brain to guide your life. I believe in "reality" and "evolution." What about people who do not? Right here, at the beginning of our journey, you see that *ideas matter*. The *fundamental* ideas a person holds to be *true*, their worldview, determine their life.

Your worldview is a mixture of ideas you hold both consciously and subconsciously. You deliberately examined some of your fundamental ideas and decided to keep them. But you got most of them since childhood from other people, accepting them all these years without examination. Most adults are surprised to learn that they have so many contradictory ideas that cannot all be true. Conflicting ideas are possible because you internalized some of them into your subconscious since childhood without conscious examination.

To help bring the "truth" about *reality* into focus, consider the following story:

You are out for a walk on a rural country road. There is little traffic, so you walk in the roadway, enjoying the beautiful scenery as you go around a sharp bend. Your cell phone "dings," so you stop, pull it out, and begin reading

the lengthy text message. At this point, you are focused on your smartphone, unaware that a yellow bus is speeding down the road behind you and coming around the curve. The driver on the bus is distracted by some unruly kids.

So, here is a question—does reality physically exist independently of you? Aristotle said it does. From ancient Greece to today, Plato and other philosophers say it does not. Some say it is just created in your or another consciousness's mind.

Here is another question—are your senses and consciousness capable of grasping reality and guiding your actions for survival? Aristotle says they are. Plato says you cannot grasp actual reality, only a "virtual" one, a supernatural dimension of essences. Eighteenth-century philosophers, such as Immanuel Kant and his followers, said you could not be sure of *anything*. They said your mind subjectively creates your ideas independent of external facts. Plato and Kant's viewpoints sever man's tool of cognition, his conceptual faculty, from reality, undercutting his mind.

Suppose your *subconscious* mind detects the approaching vehicle's sound pattern and instantly raises a "fear" emotion that causes you to turn and look. Then, your *conscious* mind recognizes the entity and concept of a "bus," recalls its nature and the nature of your body, and projects the probable outcome if the bus hits you. You step off the roadway. Then Aristotle was right.

On the other hand, if the bus does not really exist, or if the reality in your mind is a virtual reality rather than an "unknowable" real one, then you have nothing to worry about—right? Or, if you cannot trust your senses and mind, you would have no reason to move—right?

If you, deep down inside, believe that reality is not objective—does not exist independently of you, or you cannot trust your senses and mind, stand there and see what happens. One thing you can know for sure—is that in a few seconds, your senses WILL grasp the objective reality of the bus, and then a few seconds later, YOU will not exist in that reality!

Philosophers have proposed anti-reality or anti-reason ideas to explain our existence and functioning for centuries. Phrases you hear daily in our society are evidence of their influence, such as— "You can't know anything for sure." and "Follow your heart, not your head." As our most fundamental idea,

we must decide whether we believe the anti-reality, anti-reason philosophers or Aristotle.

The Physics of Entropy

Evolution is driven by the physics of "entropy," which can be thought of as the tendency of energy in the universe to seek equilibrium. Our present understanding of the laws of thermodynamics says the universe is "winding down." Matter disintegrates from complexity to simplicity, and energy flows from uneven distribution to uniformity, increasing equilibrium and entropy.

However, self-replicating molecules, simple life forms, plants, and animals emerged as forms of matter with *increasing* complexity because they would consume more significant amounts of external energy to sustain and replicate themselves than were required first to assemble them. Increases in *localized* complexity resulted in more substantial amounts of energy dissipation over time and, therefore, a net rate increase in *overall* entropy in the universe.[8]

Animals better adapted to their environment live longer, in more significant numbers, dissipating more energy. Therefore, evolution's "natural selection" process, driven by entropy, favored improved *adaptability*.

Man's cortical brain layer and rational faculty evolved because they dramatically increased our adaptability. They enabled us to discover and understand nature's cause-and-effect physical laws and apply that knowledge to create *technology* from stone tools to steel to computer chips to rocket ships, dissipating still more significant amounts of energy. While animals must adapt to their surroundings, we use energy to modify the matter in our environment to meet our needs, increasing local complexity and overall entropy.

The Law of Intellopy

If we do not go extinct, our evolutionary trajectory will continue to increase entropy in the universe by converting unintelligent, dumb matter into intelligent matter that we use for our purposes. All the wood and graphite in pencils, the concrete and steel in roads and buildings, the copper wire and silicon in computer chips, and the aluminum and titanium in rocket ships are now *purposed* "intelligent matter." According to the December 9, 2020, issue of Nature magazine, there is now more total mass in things made by humans than

in all the biomass on Earth.[9] We plan to travel to other planets and stars to extract dumb matter and convert it to intelligent matter. A product of evolution, we are a way for the universe to awaken itself.[10]

Intelligent Matter— "Living" and "Purposed"

"Intelligent Matter" is made up of:

1. Living entities that "do something" according to the nature of their consciousness and in compliance with the Laws of Nature in the furtherance of their individual life and their kind; and
2. The matter they convert to their purposes that is "used for something."

"Intellopy" is the degree to which all the universe's matter has been converted to Intelligent Matter.[11]

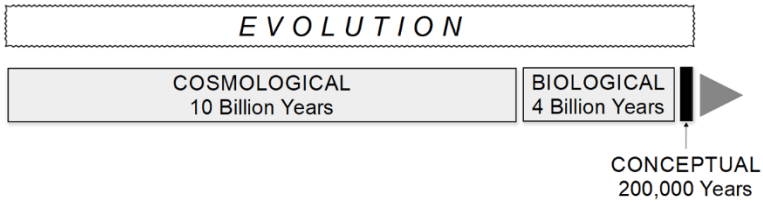
"Law of Intellopy" is the observation that the physical properties of the universe include the emergence of Intellopy (the quantity of Intelligent Matter in the universe) at an accelerating rate over time.

The BIG Picture

Most scientists believe the theory that an instantaneous "Big Bang" event 13.8 billion years ago created the universe's present form. While the theory is subject to change as science advances, things have been changing and evolving for a long time. We usually think of evolution regarding Darwin and his theory

of natural selection. But that only applies to biological evolution. The topic is much larger, spanning before and after biological evolution. There is confusion about what kind of evolution follows biological evolution—is it societal, technological, or something else?

Unaware of other intelligent life, humanity on Earth is our only context. I divide the entirety of evolution from the Big Bang to the present time into the following three periods:



Evolution's Periods

Cosmological Evolution Period - From the Big Bang to the appearance of life on Earth—about 10 billion years. This period is when the laws of physics caused increasing complexity of matter until the first simple life forms appeared.

Biological Evolution Period - From the appearance of the first life on Earth to the arrival of anatomically modern humans—about four billion years. This period is when natural selection caused increasing levels of intelligence in living entities until they became capable of conceptually discovering and applying nature's laws.

Conceptual Evolution Period - From the appearance of anatomically modern and conceptually capable humans to today—about 200,000 years. We are in this period now, and it has just begun. In this period, the *Technology Cycle* (explained later) is causing knowledge of the Laws of Nature, purposeful modification of matter, and human intelligence to increase.

We biology-based conceptual humans have been the *Technology Cycle's* agents. We applied it through the Stone Age, Iron Age, Industrial Age, and Information Age. Exponentially advancing transcendent technologies are about to enable humans to evolve from biology-based conceptual entities to technology-based conceptual entities. We are entering the *Transcendence Era,*

during which technology-based conceptual entities take over as the *Technology Cycle's* agents.

Until now, humans have been the only known conceptual-level entities that can act as agents of the *Technology Cycle*. Suppose we succeed in creating artificially intelligent conceptual entities, or we discover others in the universe. In that case, they could also be agents of the *Technology Cycle*. This Conceptual Evolution Period will continue until a Post-Conceptual Evolution Period, whatever that might be, begins, or the entire universe becomes intelligent.

Will Humanity Awaken the Universe?

Technology and Entropy

Technology dramatically amplifies and accelerates energy dissipation.[12] Stone tools enabled us to access the caloric energy of animal carcasses. Learning to make fire, we released the potential energy stored in biomass and fossil fuels. We then released the energy in falling water, geothermal heat, wind, tides, sunlight, and the atom. We are building complex reactors that will harness fusion, the energy of the stars.

Humanity, with a rational faculty supported by a subconscious faculty and the ability to modify matter, is a consequence and an agent of the process of evolution driven by the physics of entropy in the universe. We discover nature's laws and use that knowledge to create, dissipating more significant amounts of energy.

CHAPTER 3

PLASTIC BRAIN

CRITICAL PROCESS #2- Explains how our conscious and subconscious mind operates. Answers: *Am I in control of my life?*

Essentially, we are our brains. The most fundamental knowledge we need is an understanding of our brain's physical workings. While it is the most physically complex thing we know, our brain's essential operation is not mysterious but relatively simple. Incredibly, we are not taught this in school. We must address it before we continue.

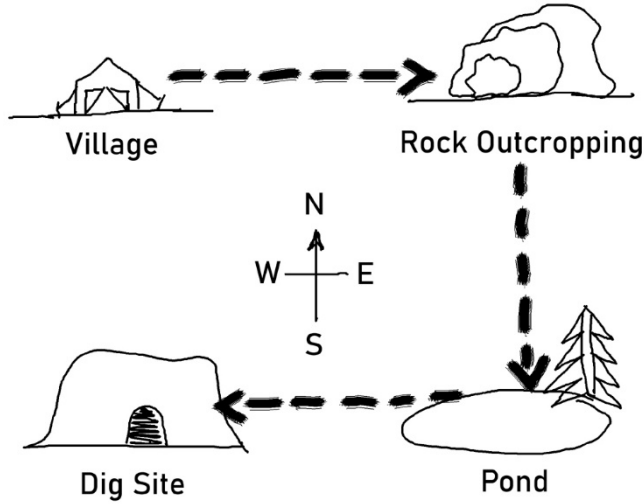
Pathways

You are using your brain right now to read and understand these words. You are using it to pursue the goal of new knowledge that you hope this book will provide. In the next chapter, we will explore "concepts" and how we use them to "reason"—our unique form of consciousness. But first, we must demystify and understand the basic *physical* functioning of our brain. To explore how your brain physically works, let us go on an adventure to the jungle.

Assume that you are an amateur archaeologist. There is a remote site in a dense jungle that you wish to dig. You make your way to a small mountain village that you will use as your base camp. Your dig site is a couple of miles away, and you will hike to it each day and return to the village each evening.

When you first arrive at the village, you describe your dig site to the village chief and ask him the best way to get there in the morning. He explains that there is no existing path to that site. You will need to hike through the jungle. He gives you directions. First, you head east up the mountain to the craggy rock outcropping, then south down a slope to the small pond, then west to your dig site.

The following morning, equipped with your shovel, machete, and the chief's directions, you head out to find your dig site. It takes a lot of effort to hack through the jungle, creating a walking path.



Chief's Directions To Your Dig Site

You ascend steep slopes; you climb down and up the other side of small gullies; you wade through small streams. You must pay close attention to your compass and keep a lookout for your next landmark. It is slow going, but you eventually find your dig site. It has taken you half the day to get there, but you now know how to get there, so you head back to the village.

You realize that to get to your dig site more quickly and not use up all your time and energy just getting there, you must improve your pathway to the dig site. The next day, you hack away more brush and position some stones to facilitate stream crossings. The day after, you use your shovel to dig some steps into steep slopes. The day after that, you put some logs over the small gullies.

As you repeatedly use and work on it, your pathway becomes more developed and easier to traverse. You soon discover that you no longer must consciously look at your compass or keep a lookout for landmarks. You follow the path you have created. You finally reach a point where you no longer must work on your path; you use it. You get to your dig site quicker and expend less energy getting there.

Your physical brain works the same way. When you have a conscious thought, a particular network of neurons is activated. Using those neurons to have that thought causes your brain to give that network of neurons increased importance. Your conscious thinking changes the physical neuronal structure of your brain. Conscious thinking causes chemicals to be released that turn on and

off the expression of specific genes controlling your brain's structure. Turning genes on and off is called "epigenetics." Connections between neurons across the gaps called "synapses" are made stronger, like placing stones in the streams and putting logs over the gullies. Repeating the same conscious thought further strengthens the neural networks involved, makes them more efficient in the energy used, and speeds them up. Once developed and optimized, this is the neural pathway you will use whenever you contemplate the same idea.

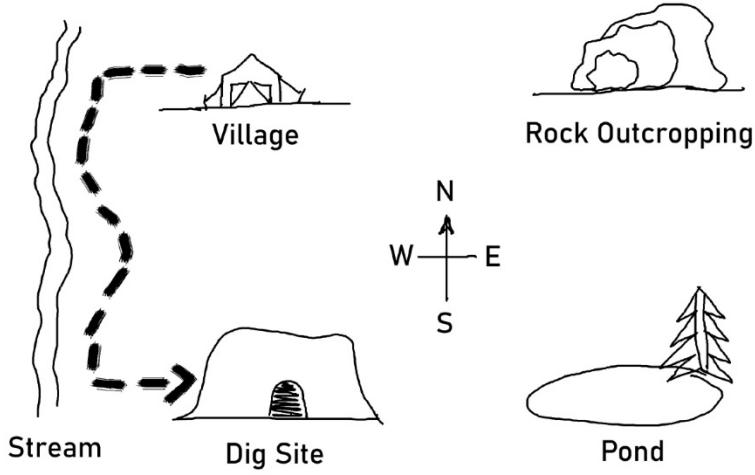
At birth, your physical brain was built with a basic map of the specific brain locations used for various functions as programmed in your genetics. However, the experiences encountered by your consciousness as you grew up changed your brain map. Your brain allocated neurons as needed to encode and remember whatever your consciousness experienced and in the order in which you encountered it. Whatever you first and frequently "learned" got first "dibs" on unallocated neuronal resources. As you age, your brain starts pruning away lesser-used neuronal resources to make room for new knowledge. It also creates new neurons and neuronal connections as needed. Your brain grows new neurons from neuronal stem cells until you die. It is continuously developing and dismantling neural networks.

Most of the knowledge you presently have in your mind was put there by your conscious thinking over your lifespan. Your strongest memories and ideas are whatever you thought about with the most conscious effort and frequency. Your brain saves patterns with redundant copies, each with some slight variation. Multiple copies enable you to recognize someone from a frontal and profile view. The more copies of the memory, the stronger it is. A memory that fades is one where the brain gradually deletes redundant copies.

Let us go back to the jungle. Every day, you have followed the "idea" in your brain of the best pathway to your dig site. You do this unconsciously now since you no longer must pay attention to the jungle pathway. This pathway idea was first described to you by the chief. Then, with repeated effort applied over time, you created and made permanent a neural network of it in your brain.

Then, one day, a professional archaeologist stops in the village while on an expedition. You visit with him about your dig site. You explain its location by giving him the directions to get there that the chief gave you. The

archaeologist brings out a topographic map and finds the place of your dig site on it. You immediately notice on the map that a stream flows down the mountain only a short distance west of the village and passes near your dig site. It looks like a faster and easier path to get there.



Follow the Stream To the Dig Site

At first, your emotions resist the idea of having to hack your way through the jungle again. However, your productive work is of high value to you, so you are rationally motivated to increase the time and energy available at your dig site. So, you suppress the emotions telling you to keep using the chief's longer but now "easy" pathway.

The following morning, you strike out, heading west instead of east. Once again, you must consciously focus on what you are doing. You must expend effort to cut back the brush and make a new pathway to the stream, down the stream, and to your dig site. You find that this new pathway to your dig site, once you develop it, will indeed be much better than the one you first learned from the chief. You will get to your dig site in half the time and spend half the energy getting there.

When you get back to the village, you ask the archaeologist why he thinks the chief first gave you such a roundabout path. The archaeologist tells you that this tribe worships the sun. Regardless of the destination, any trek that begins in the morning must first start toward the rising sun in the east.

You have created specific neural network pathways in your brain that encode conceptual ideas for your entire life. You first obtained some of these ideas by your direct observation of reality. For example, a toy ball you released always went down, never up. Then, when you reached the age of language skills, you also obtained ideas from other humans, like how to get to your dig site. The more often you heard or thought about the ideas you got from other humans, the stronger they became in your brain. Eventually, all the ideas, those you got directly from reality and those you got from humans, were made equally permanent in your subconscious.

Then new knowledge of reality comes along, like when the archeologist produced the topographic map. You discover that an idea you got from another human was not true to reality. The chief's directions to the dig site were not the "best" pathway. The chief had reasons based on mysticism, not reality, to send you the way he did, and you did not know it.

In the face of new knowledge based on reality, you must expend consciously focused mental effort to build a new or modified set of neural pathways in your brain. Over time, the neural network for the old idea, the chief's trail, will no longer be maintained by the brain and lose strength due to a lack of use and inattention. The brush will grow back, and the steppingstones and logs will wash away. The brain's resources used for the old idea will be re-tasked.

Neural networks of conceptual ideas fill your brain. Some of your ideas are true to reality, and some are not. You can either allow the contradictions to remain or apply the conscious mental focus necessary to identify and correct the neural networks in error.

Children are blank slates that accept new ideas readily. However, we adults have subconsciously used specific untrue neural networks for so long and frequently that they are powerful ideas. Our conscious mind recognizes the old idea's error when presented with new knowledge of actual reality. Still, our subconscious generates an emotional resistance to change. The emotion says, "Let's keep using the familiar pathway." Our brain likes to conserve energy, and the old ideas, so thoroughly automated, are the "easy" ideas. They are the pathways your subconscious automatically follows whenever considering those

topics. Replacing them is hard work as you apply your conscious reason to overcome your subconscious emotional discomfort.

We understand what a "behavioral habit" is. We all have a few that we are consciously aware of and many that we are not. You might not have realized that your strongly encoded neural networks also form "thought habits." They are your habitual ways of thinking, generally and about specific topics. Replacing a long-established thought habit that conflicts with reality requires intense conscious focus, repeated over time. Your brain will develop the neural network representing the new idea. Eventually, the new idea strengthens, and the old one fades.

Automation[13]

The essential idea to capture is that whatever we consciously think about, even in our imagination, causes our brain to change, altering our mind physically—our memories and how we think about things in the future. Our conscious thinking "programs" our subconscious with patterns of thought. This is how we automate our knowledge for future use so it can guide our actions without requiring conscious mental focus each time. When patterns are encountered in the future, our subconscious sends instantaneous pattern-match signals to our conscious mind through emotions.

Our emotions, as pattern-match outputs, are only helpful if the knowledge that our previous conscious thinking automated into our subconscious is reality-based and consistent. If it was based on fantasies or contradictions, then untrustworthy emotions result.

We can introspect. Our conscious mind can recall from our subconscious the details of ideas stored there. We can bring the neural network pathways stored in our long-term subconscious memory into deliberate mental focus.

Instinct

All animals, including humans, are born with instinct. Instincts are how a newborn human can breathe and suckle when presented with a breast and cry when not. But how does instinct in humans differ from the instinct in animals?

We can think of instincts as neural networks in the brain built there according to genetic instructions while the fetus was growing. Animals are

provided with a complete set of lower and higher-level instincts to guide their actions for their entire lives. Animals only have instincts to guide them in responding to and adapting to their environment to survive. So long as these genetically programmed instincts are appropriate for the environment in which they live, their lives will continue.

Animals are generally unable to modify the neural networks encoding their instinctive behaviors. A significant change in their environment threatens their survival. Only individual animals with favorable genetic mutations will survive when the environment changes. Of course, this is the evolutionary mechanism of "natural selection."

Humans are born with only lower-level neural network instincts built in, not a complete set. Unlike animals, our instincts are insufficient to guide our entire lives. We must learn from adult humans what we need to survive and how to obtain it. Fortunately, evolution replaced our missing instincts with a conceptual-level consciousness that animals do not have. Instead of following instinct, we use our rational faculties to observe and learn how reality works.

Using reason, we program what we learn into our brain's neural networks. We are not limited to the lower-level instinctive neural networks provided at birth; we can create new ones as needed. We do much of this during childhood, but "learning" continues. We use our learned knowledge to change ourselves (our brains) and the environment to fit our needs.

Regarding animals, the entire species must adapt its genetically coded instincts to fit a changing environment through natural selection over many generations. A human can adjust his neural networks to a changing environment during his lifetime. He can pass what he has learned on to his offspring by teaching it to them after birth. Reason provides us with the survival advantage of *rapid adaptability* and is why we succeed in many different environments.

Our physical nature is a fact of reality. Lacking instinct, reason is our only means of survival. Our conscious, rational mind, supported by subconscious automation and emotions, must be left free to guide our lives.

Cognitive Fluidity[14]

Genetics programs the initial structure of the brain and its functional modules during the development of the fetus. There is little difference at birth between the brain of a human today and a human from the Pleistocene. They both share essentially the same genetics. However, by adulthood, there are massive differences in the physical brain structures, integrations of functional modules, and brain functional abilities. These represent differences in intelligence. Differences are caused by each brain adapting to what the individual asks it to do during his lifetime, especially during early childhood.

Today, a young human asks his brain to learn and do much more than be a hunter-gatherer who, at age three, could walk and mimic his parents but could not talk, print his name, or operate a smartphone. New technologies for sensing and grasping the world, such as augmented and virtual reality, will cause our brains to form newer integrations between the various functional brain modules. We will develop new functional capabilities that humans before us did not have even a couple of generations ago.

Unlike the glacially slow incremental changes in the brain structure caused by biological evolution for our entire species, cognitive fluidity causes massive differences in individual adult brain structures. They result from the thinking we ask our brain to do during our lives.

Consciousness[15]

Consciousness in higher animals and humans is the manifestation of a complex set of functional brain modules executed on pattern-saving-and-matching neural structures applied in a hierarchically and recursively networked fashion. These differ between individuals according to their genetically different brain structures and the different external stimuli provided by reality during an individual's lifetime. To be conscious means to be aware of the self and reality. The more information an individual can obtain about how things work in reality, the better it will be at adapting its behaviors for success.

We cannot describe *consciousness*, *mind,* or *volition* as phenomena apart from the brain. Consciousness is not, itself, an entity. Consciousness, mind, and volition are words we use to represent functional attributes of a brain sufficiently complex for those operations to become possible.

Consciousness, like the faculty of "sight," is not a material-less phenomenon but one attribute of physical human nature. The "mind" is related to pattern recognizer units and connection networks in the brain in the same way the faculty of "sight" is related to rods and cones in the eye. Both sight and the mind are attributes of "consciousness" that emerge from a sufficiently complex neurological anatomy—*sight* is a specific attribute, and the *mind* is a collective attribute.

Consciousness is also a *primary*—it cannot be broken into parts. Consciousness is a faculty that consists of the integrated whole of the organism's brain functions, connections to other parts of the body, learned patterns of thinking, experiential mental content of how things in reality work, remembered consequences of choices made, and much, much more.

Human consciousness is awareness of the nature of external reality and oneself and choosing to apply focused conceptual-level thinking to select appropriate behaviors in various situations or leave behavior selection to subconscious perceptual-level automation.

Because "sight" and "mind" are attributes of our neurological anatomy, they cannot exist apart from our physical bodies. We did not learn the primitive mystical idea that consciousness survives the body's death from reality. Since childhood, we got that idea from other humans who got it from those before them, going back to a time before humanity learned how to apply reason to reality. To accept this fantastic idea as true now, one must deny the truths of reality and reason. We can't have it both ways; we cannot accept the irrational without denying reason. Remember, the subconscious brain emotionally resists changing long-held neural networks even when we consciously realize the ideas are false. However, technology in the *Transcendence Era* of human evolution is about to supersede our primitive views on death.

Longevity

Because we have the technology to decode the human genome and edit those genes; because we recently gained a full complement of tissue banks of various kinds of pluripotent stem cells and tissues that *do not age* in the laboratories; because nanotechnology is turning biology into a physical not just

medical science; because we are getting better at making artificial parts for our bodies; and because we are in the explosive phase of technology's exponential curve, we are on the verge of discovering how to prevent fatal diseases and reverse the aging process. With the elusive *fountain of youth* nearly at hand, we might soon be able to live biologically for hundreds of years.[16]

While our brain's structure is complex, it appears that it might operate using only a few essential functions replicated in hierarchies. Computers are good at scaling up functions to extreme capacities. When we can build machines with complexity sufficient to simulate all the neurological processes in our bodies (i.e., nanotechnology and quantum computing), and when we have developed nanotechnology capable of taking a snapshot of our brain's state, it will become possible to transfer our consciousness into a machine to become "virtual" humans. Then, we can have any "body" we choose. Our conscious mind will survive *indefinitely* so long as there is a machine "body" to host it and energy to fuel it.

Evolving to become first hybrid and then virtual humans is how we will use knowledge of the Laws of Nature, not mystical fantasy, to defeat death.

We won't get bored. Our conceptual and emotional intelligence will continually increase as we advance science and technology, amplifying our ability to experience, feel, inquire, learn, create, and appreciate beauty. It's a BIG universe. We will conclude that our radically extended life is worth living to experience the next exciting achievement of ourselves and humanity. Are we going to the stars on rocket ships? Life becomes a giant child's toybox with a never-ending supply of toys, and we want to play with them all. Continually learning, we repeatedly ask ourselves, "What *else* am I *now* capable of?"

Regarding our future in the stars, once we are virtual humans traveling on our machine starship, we can remove power to suspend our consciousness for however long it takes to reach the next galaxy. Unlike biological bodies, our machine body will not deteriorate. When power is restored, it will seem like we were transported instantaneously. Future space-time physics discoveries will add new scenarios of how human consciousness will awaken the universe.

CHAPTER 4

CONCEPTUAL THINKING

CRITICAL PROCESS #3- Explains how we use knowledge validated against reality to sustain our lives. Answers: *What must I know and do to achieve my heroic vision?*

Now that we know how our brains physically work, we need to understand how we use them. This defines us as "human," and it is the source of our individual rights. This is our brain's "User's Manual."

The Rational Animals

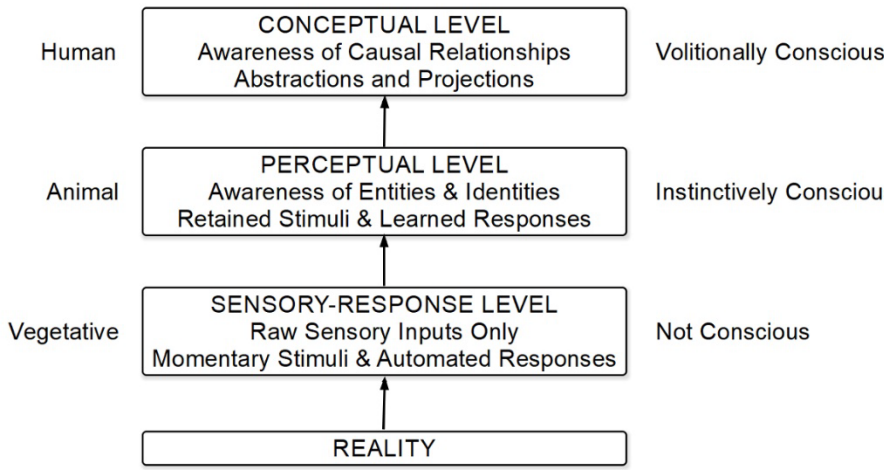
Because you are reading these printed words, I can safely assume you are a human, not a chimpanzee. What is the difference? What is the defining characteristic of humans? Can humans be defined as "hairless apes"? That might be true, but it is not the defining characteristic of humans. The ancient Greek philosopher Aristotle, in 350 B.C., defined humans as the "rational animals."

Reason

Humans can "reason," while chimpanzees and other animals cannot. Beyond the size of our neocortex, scientists are beginning to identify the evolved differences in brain structure that make reasoning possible. For example, extremely long "von Economo" or "spindle" neurons with single axons and dendrites that span great distances in the brain were recently discovered.[17]

These von Economo neurons are found only in humans, great apes and cetaceans. Humans have five times more than gorillas. We will eventually understand how "reason" emerged from evolved neurological anatomy.

Our rational faculty forms and retains abstract ideas called "concepts." Our c*onceptual* level of consciousness is higher than animals' *perceptual* level of consciousness. How we form and use concepts is central to what we mean by "human intelligence." We must understand the functioning of our human intelligence if we want to be better able to guide our lives.



Levels Of Consciousness[18]

Animals have automatic instincts to guide their behaviors based on the memory of their species' past successes stored in their genes. No choice is possible for them. They cannot adapt to sudden changes in their environment.

In humans, Evolution replaced instinct with reason and choice for improved adaptability. Our brain integrates the information about reality our senses provide into the knowledge we need to survive.

We integrate sensory information into percepts, percepts into concepts, concepts into principles, principles into sciences and all our sciences into a philosophy. When we base our integrations on facts of reality, the resulting knowledge is objective and valid. Knowledge of nature's laws accumulates in society, and we apply it to create technology from stone tools to rocket ships. Using reason and technology to adapt our environment to our needs, we spread across Africa, the globe and now into space.

Percepts

In animals (humans are animals), percepts are formed at the *perceptual* level, where our *subconscious* integrates the many signals received from our senses into perceptions about the reality around us. We perceive things in reality and our relation to them. Your pet dog can form the perception of you as its master and can perceive the ball you are holding and the direction in which you are about to throw it. Percepts are what humans integrate into concepts.

Concepts[19]

Concepts are ideas formed at the *conceptual* level in our *conscious* minds. The word we assign to it represents each concept. Only humans have evolved a conceptual-level consciousness. A concept can be "concrete" or "abstract." Examples of *concrete* concepts would be the words "chair," "table," and "chest." We consider these concrete concepts because we can perceive and point to actual chairs, tables, and chests. However, "furniture" is an *abstract* concept that groups chairs, tables, and chests together based on their similar usage in a house. We can point to and focus our mind on a chair, table, or chest, but we cannot perceive or point to a "furniture." For that, we form an abstract concept to focus on.

Integration

A concrete concept *integrates* a multitude of perceived existing *real things,* based on some essential attribute they share, ignoring non-essential differences, into a single *abstract thing* held in our mind to represent the group. The word "chair" becomes a *unit* in our mind, an abstraction, representing the multitude of actual chairs used for sitting that ever existed or will exist regardless of color, shape, etc. A concept is our *mental method* of identifying and dealing with things in reality, but it is not the *things themselves.* They exist independently of us and the words we assign to them.

We can then integrate multiple concrete concepts into a single higher-level abstract concept based on some attribute that the concrete concepts share, again ignoring non-essential differences. "Chairs," "tables," and "chests" become "furniture." We can continue integrating into ever-higher

abstractions— "furniture," "appliances," and "vehicles" become "personal property," which then combines with "house" and "savings" to become "assets." We can go in the reverse direction and expand a concept into its components (to become re-aware of the differences).

This "unit reduction" process *is* the power of man's conceptual faculty. Our minds can perform this compression-or-expansion-of-units process in either direction with lightning speed to keep the number of items in mental focus within our limit.[20]

Because we integrate sensory information into percepts, percepts into concepts, concepts into principles, principles into sciences and all our sciences into a philosophy, our highest-level philosophical concepts that can be followed down through the chain of lower concepts to point to concrete existents are *true*— "connected" to reality. If we cannot connect a concept to reality, we call it a "floating" abstraction, for example, a "unicorn."

Imagination

Imagining something novel that we can build in reality is the source of our creativity and all technology. However, something we imagine that we cannot make real, such as a unicorn, is a fantasy that we can only depict in art.

People can start with fantasies and integrate them into entire systems of mystical beliefs, ethics, politics, and philosophies. When people do so, they are integrating, which can seem satisfying. But this is misintegration, and the resulting knowledge, based on fantasies instead of facts of reality, is fiction, non-objective and invalid.

Emotions

Emotions are automatic behavioral guidance provided by our subconscious, similar to instinct in animals. However, unlike genetically provided animal instinct, our subconscious starts as a blank slate. We program it by our conscious thinking. Whatever we think about most intently and often gets automated into our subconscious. Then, when we encounter similar situations in the future, our subconscious recognizes the pattern and gives us instantaneous evaluations in the form of emotions.

With a broad scope and lightning speed, emotions play a critical supporting role in focused conscious thought, which must be primary when choosing behaviors. For example, emotions signal to our conscious mind that a present situation might be "pleasurable" or "painful" based on our past thinking.[21]

Unlike animal instinct, we can choose to act on emotions or override them because, like mathematical statistics, emotions detect overall patterns but might not apply in a specific situation. Also, because we previously accepted and automated unvalidated ideas into our subconscious, we now have conflicting emotions that do not provide helpful guidance.

Foresight

One benefit of evolving to become conceptual beings is the capability of foresight.[22] Our brain's pattern-recognizing capabilities enable us to grasp entities and their identities in our perceptual environment. It then attempts to recognize patterns of *situations* involving such entities and *project* how the *story* might unfold, considering the *causal* natures of the identified entities.

For humans, having a hierarchy of concepts connected through cause-and-effect linkages to reality is essential for accurately projecting a story and responding appropriately to a situation. Suppose a person's conceptual hierarchy is not grounded in reality or has a disconnect somewhere along the chain of concepts. In that case, an effective response to real situations is less likely.

Volition[23]

Humans can grasp and understand the Laws of Nature using conceptual-level thinking. However, for the first time in evolution, humans also have the power to turn off their thinking or evade reality. But they cannot succeed with such evasion. Consider the following airplane analogy:

Most high-performance airplanes of today, such as fighter jets, are built with "negative stability" designed into them. Planes designed to be "positively stable," like toy gliders, will stay upright without input from the pilot. Positively stable airplanes have stability as their advantage but are not very maneuverable. Planes with positive stability will fight against a gust of wind or inputs by the pilot to stay upright and keep a constant direction.

An airplane with negative stability requires continuous inputs from the pilot to remain upright. If the pilot (or autopilot) stops providing control inputs, an aircraft with negative stability will soon tumble out of control.

An airplane designed with negative stability is highly responsive to control inputs from the pilot. He can easily make the plane go anywhere he wants. The pilot is in control, and the airplane does not resist him.

Notably, the Wright Brothers succeeded, while others failed because they understood that the issue of "control" was critical and that they needed to design for "control" over "stability."

Evolution created animals with positive stability through their genetically programmed instinct. Their instinct automatically keeps them "upright," supporting their continued existence. An animal has no conscious control over its perceptual-level consciousness. The animal will survive so long as its instinct is appropriate for its environment.

Evolution selected for negative stability traits in humans. While man begins life with some low-level instinct, his conceptual-level faculty replaces the animals' automatic higher instincts. The tremendous power of man's intelligence is his ability to pilot his mind, to "think." Man can adjust to upsetting "gusts" and steer his life in any direction he chooses.

This freedom comes with the responsibility always to pilot one's mind to stay "upright" as a human. But, like an airplane with negative stability, man can stop piloting his mind and suffer the consequences, tumbling out of control. To be *volitional*, to have *free will* means having the freedom to think or not to think— "to be or not to be."

Humans, who do not have automatic knowledge to guide them, must use their minds to discover what they need to survive and how to obtain it. Their volitional, conceptual thinking enables humans to adapt the reality around them to themselves rather than themselves to reality. It gives humans the ability to create, which is the power to bring into existence an arrangement (or combination or integration) of natural elements that had not existed before.

The knowledge we learn when focusing on reality gets automated into our subconscious. Using previously automated neural networks, our subconscious can handle routine tasks for us, such as walking, without our having to focus on them. But if we bump into something, we re-engage our

conscious focus to figure out why, thereby adjusting our automated subconscious patterns. Volition is our ability to choose to apply conscious focus to deal with a situation or to let our subconscious handle it. But our subconscious is only as reliable as the conscious thinking done previously.

Focusing on reality is "reason." Focusing outside reality is "mysticism." Humans can choose to act on ideas not connected to reality. "I can walk on water across this river." They cannot survive such evasion of their responsibility to focus their mind on facts of reality.

Evolution provided humans with reason, opposable thumbs, and the ability to walk, enabling them to discover more about reality and then apply what they have learned to the matter around them. Humans have an innate and insatiable desire to explore, discover, learn, imagine, create, and teach—because it is essential to survival.

In the last few centuries, humans have used their observations of reality to discover the principles of gravity and the nature of mass. They have measured the speed of light and discovered the relationship between matter and energy—$E=MC^2$. This equation, a very high-level abstract concept, can be explained and connected down through a hierarchy of lower-level concepts and percepts to observable reality. Such a new abstract concept *is* connected to reality and becomes new knowledge. We can then use it to manipulate reality for further discovery, such as in the transcendent technologies of quantum computing and fusion energy.

Achieving all this is not automatic. Each person has *volition*. He must *choose* to be committed to reality and to focus his mind on it.

Indirect Knowledge

Ideas we learn directly from *reality* are always valid. For example, we learned that when we release an object, it always falls downward. Unfortunately, when we stopped believing in Santa Claus, our parents missed the opportunity to teach us a critical life lesson. They didn't teach us that the ideas we get from *other humans*, even parents, teachers, and ministers, can be true or false, and we must learn how to validate them. Lacking this vital lesson, we accepted into our subconscious, without validation, everything others taught us—truths *and* ancient and modern falsehoods and contradictions.

The warning to have an "open" mind instead of a "closed" one is a false alternative. We need an "active" mind that validates incoming ideas from other people against reality and what we already know is true, suspending unvalidated ideas and rejecting invalidated ones.

To have trustworthy emotions, we must now apply conscious thinking to identify and correct the invalid ideas we got from other people as far back as childhood. We must replace them in our subconscious with concepts we have validated.

Hive Mind

Human society cannot have a "hive mind" because humans lack instinct. Evolution provided species that live in swarms with instinctive behavior that protects the hive at large, even to the point of instinctive individual self-sacrifice. Humans initially evolved into small family units, not massive hives. Human *society* is a later development that coincides with the evolution of man's conceptual-level consciousness and language.

Humans traded the animals' stability and inflexibility of instinct for the adaptability and flexibility of volition and reason. Without instinct, there can be no preprogrammed "hive" human behavior in human society. "Society" is the sum of individuals' behaviors, each of which can act for or against his survival.

However, human society *does* affect the behaviors of the multitude of individuals within it. Society is the storehouse of conceptual ideas produced and recorded by all its present and past members, validated or not. Born a blank slate, each new human does not know how to operate his conceptual mental potential. He must learn how to use it from the society around him. He must then acquire conceptual content from the knowledge stored in society, keeping what is valid and rejecting the rest. The individual might then add to society's stored body of knowledge during his lifetime.

The ideas stored in society are a mixed bag of ideas regarding the nature of reality and human knowledge— "What's out there?"— "How do I know it?" The ideas today derive from two different answers to these questions. One set of answers says that there is a real reality, and our rational faculty is competent to deal with it. The other set of answers says that what we see around us is a

virtual reality, the real one is unknowable, and feelings or revelation, not reason, are our trustworthy sources of knowledge.

The odds are that each new human will learn the method of thinking and the body of conceptual knowledge prevalent in the society where he is born. It will likely be a mixture of the two opposing ideas, with one or the other being dominant. Teaching them to children reinforces the dominance of those ideas in society—reality-based or not. However, the child unknowingly also internalizes the less prevalent opposing views, causing conflicting emotions in adulthood.

The mix of ideas in society changes only through the influence the society's recognized intellectual leaders have on the institutions and systems for educating new humans. A leader who rises to prominence and promotes reality-based thinking methods will move society as a whole and conceptual content in that direction and vice versa. But that does not constitute a "hive." Everyone is free to choose opposing ideas.

Social media and information technology can amplify the spread of the ideas of society's intellectual leaders and cause similar behaviors in masses of people as if they were a hive. However, this is not a hive but rather a population of humans. Each can think, but many have lost or never acquired the thinking skill for themselves. They are at the mercy of the Technocrat priests who claim "knowing" and will do their thinking for them.

CHAPTER 5

TECHNOLOGY CYCLE

CRITICAL PROCESS #4- Explains how knowledge, technology, and human intelligence advance in society. Answers: *What is society's evolutionary purpose?*

Because our evolutionary purpose is to discover, create, and dissipate energy, we must understand technology's role in human society and our continuing evolution.

The Exponential Curve[24]

Technological change seems to come to us faster than it used to. As soon as we learn how to use or do something, there is an all-new thing to use or way of doing it. There is a mathematical concept that describes our present situation with technology. It is an *exponential curve*. It applies to things that grow exponentially rather than at a linear rate.[25]

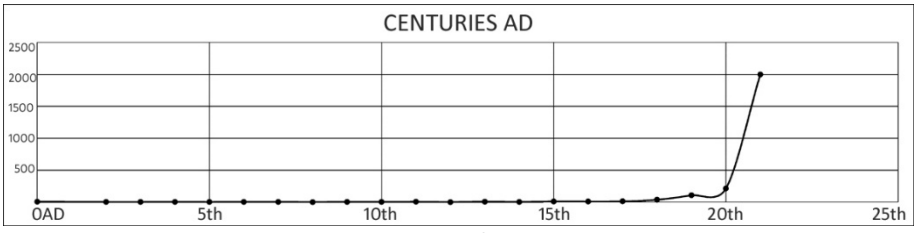
You can find several websites that list all the significant technological developments and when they first occurred. The following paragraph lists a few of man's significant discoveries or inventions. Please read through these examples to have them in a mental context before we make a few observations. Note that each item represents something meaningful in the progression of human technology.

Examples include: fire-cooking, spears, language, clothes, pottery, agriculture, cities, bricks, glass, the wheel, sailing, writing, bronze, irrigation, the alphabet, roads, concrete, cast iron, logic, water wheels, steam engines, drilling, horse collar, toilet paper, windmills, spinning wheels, gunpowder, algebra, eyeglasses, movable type, compass, rifle, Mercator projection maps, toilet, magnetism, telescope, astronomy, Newton's laws, sulfuric acid, sextant, hot air balloon, electrolysis, smallpox vaccine, telegraph, bicycle, automobile, photography, electric motor, Bessemer steel, lead-acid battery, Pasteurization, radio waves, telephone, incandescent light, air-filled tires, airplane, Ford Model T, television, penicillin, neoprene and nylon, programmable computer, nuclear fission, transistor, polio vaccine, birth control pill, Sputnik, jet airliner, laser,

industrial robot, coronary bypass surgery, astronauts on moon, pocket calculator, microprocessor, anti-lock brakes, handheld cellphone, Internet protocol suite, MRI, Apple® computer, the Concord®, GPS, Space Shuttle, contact lenses, Hubble space telescope, online stock trading, Sony PlayStation®, genetically modified food, Google®, Wi-Fi, genetic sequencing, Roomba®, graphene, lab-grown organ transplants, stem cell therapies, iPad®, quantum entanglement, Mars rovers, 3D printed blood vessels.

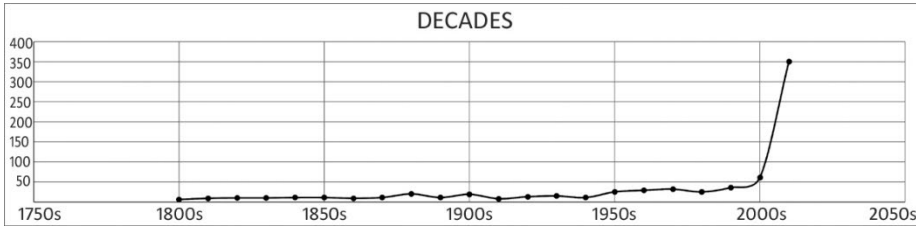
I found approximately 2,500 significant discoveries and inventions from the Stone Age until 2010. I listed them on a table with the reported year of their appearance. Then, I created graphs of the number of discoveries and inventions for the centuries since 0 AD and the decades since 1800. See the charts below. Here are some observations from the data and graphs:

- From the earliest stone tools through the end of the eighteenth century, a period of nearly 30,000 centuries, man had only produced about five percent of all the significant technologies made through 2010, with one-third of that five percent in the eighteenth century.
- Then, in the nineteenth century, humans produced as many new significant technologies as in all the prior centuries. The Scientific Age was born.
- In the twentieth century, humans produced double the number of new technologies created in the nineteenth century. The Age of Technology was born and began to pick up speed.
- Then, an explosion occurs. In only the first decade of the twenty-first century, from 2000 to 2010, humans produced almost ten times the number of new technologies they created in the twentieth century.



Inventions by Centuries

The data I captured stopped in 2010. In the second decade of the 21st century, from 2010 to 2020, significant discoveries and inventions were happening so fast that it is futile to list and count them. Only the World Wide Web can keep up with them.



Inventions by Decades

The graphs show a classic exponential curve. It is an almost horizontal line up to about three hundred years ago when it started elevating. Then, it makes a sharp bend over a short period to become near vertical.

Technology recently began growing at an *explosive* exponential rate. It is difficult for us to fully grasp the enormity and speed of change in our near future. We tend to think "linearly," expecting the rate of change of the last decade to continue into the next. The amount of change that took a decade will soon happen in a year, then a month, then a day. The need to anticipate change in "exponential" terms is new for us, but we can do it with our conceptual faculty. Outlandish technological predictions with any degree of plausibility, such as moving our consciousness into a machine body and living indefinitely, will likely be closer to reality than projecting the rate of change based on what we've already experienced. It would be unwise to dismiss such predictions.

The *Cosmic Evolution Period* of ten billion years and the *Biological Evolution Period* of four billion years were the long, slow, horizontal phase of evolution's exponential growth curve. The *Conceptual Evolution Period*, at only 200,000 years now, has just begun. Yet, we have already advanced to the point where intentional technological *artificial selection* will start to supersede random biological *natural selection*. Could it be that the evolution of conceptual thinking capabilities in humans and the machines we will create marks the beginning of the inflection of evolution's exponential growth curve?

The Technology Cycle

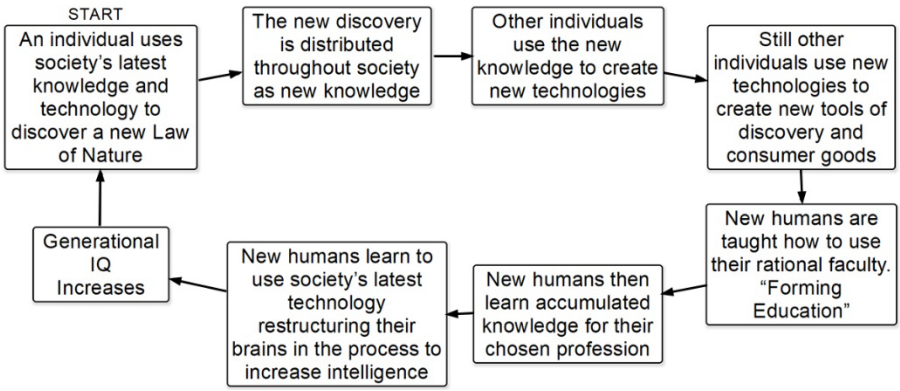
Processes of the *laws of physics* drove cosmological evolution. The process of *natural selection* drove biological evolution. We will call the process that now drives conceptual evolution the *"Technology Cycle."* The *Technology Cycle* is the source of Francis Bacon's observation that "Nature, to be *commanded*, must be *obeyed*."

The *Technology Cycle* is about increasing three quantities:

1. **Conceptual Knowledge**. This is the total body of knowledge of how reality works known to society. It includes learning about the Laws of Nature and the nature of things that exist.

2. **Technology**. These are the tools or products we create from the matter around us to support and advance our lives and aid in discovering new conceptual knowledge.

3. **Human Intelligence**. This is the set of intelligence functions within our brains created by integrating functional brain modules (cognitive fluidity).



The Technology Cycle

The *Technology Cycle* consists of the following four significant steps. These are repeated in cyclical iterations continuously over time.

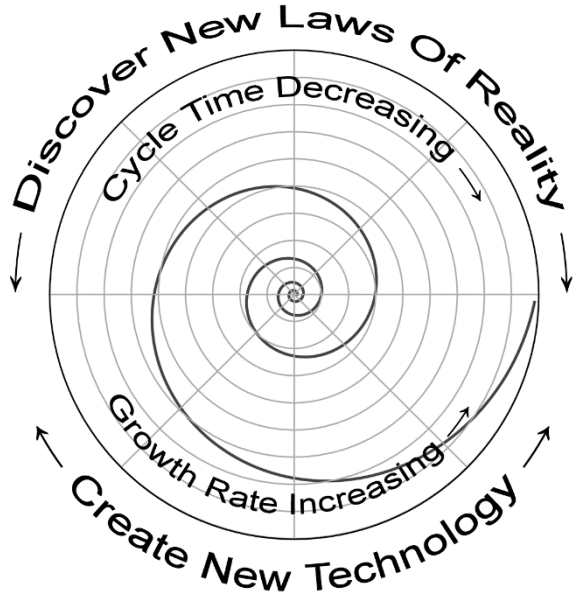
1. **New Discovery**. Individuals, usually scientists, apply the knowledge, technology, and intelligence available to them at that time to the reality

around them to explore, observe, experiment, analyze and ultimately discover a new Law of Reality or the nature of an existent as new knowledge.

2. **New Knowledge**. This new knowledge is distributed throughout society via information technology and education technology.

3. **New Technology**. Individuals, primarily engineers in businesses, apply the newly acquired knowledge and existing intelligence capabilities to manipulate the matter around them to create new or improved technology, products, and services for society.

4. **New Intelligence**. Individuals throughout society learn New Knowledge and learn to use New Technology products and services. This learning and doing causes their brain modules to restructure, creating new human intelligence functions that humans did not have prior. Repeat step 1.



Knowledge, Technology, and Intelligence Increase
and Cycle Times Decrease Exponentially

In the beginning, new knowledge slowly accumulated as individuals demonstrated it to others. As language, cities, writing, and the Internet developed, knowledge began accumulating more rapidly. Like a ratchet, the *Technology Cycle* continually advances global knowledge and technology. Each new generation's brains restructure themselves to handle the knowledge and technologies in their contemporary environment.

Human intelligence promotes conceptual evolution, which advances human intelligence. This cycle is accelerating; therefore, each subsequent generation of humans gains an incrementally more significant intelligence than the prior generation. James R. Flynn, a researcher at the University of Otago in New Zealand, discovered that IQ scores have been increasing steadily since the beginning of the twentieth century. He found that they have increased by three total IQ points per decade.[26] This IQ increase appears to be evidence of the *Technology Cycle* and Cognitive Fluidity at work.

Roles

When we think of "technology," we can ask ourselves, "How does it get created? By whom? What are the conditions necessary—what does it depend on? How does each human contribute to increased Intellopy in the universe?"

- Scientists perform the *New Discovery* step in the *Technology Cycle*. Their essence is *inquiry*. They ask, "How can we discover new knowledge?" They inquire and discover new Laws of Nature.
- Engineers in businesses perform the *New Technology* step in the *Technology Cycle*. Their essence is *designing*. They ask, "How can we deliver new products?" They apply new scientific information in the design of new products and services.[27]
- Business Professionals are the creators and distributors on the most significant scale. They envision a way to produce quantities of a product or service on a massive scale to make a profit for themselves and their investors, commensurate with the novelty and risks involved. They combine the capital, talent and physical resources needed to develop and produce the new products in quantity and distribute them to the masses.

- Investors and Financiers provide the capital business professionals need to create and grow their businesses in exchange for a return on investment. They create value by putting capital to the best possible use in the economy.[28]
- Employees. All productive work comes from the mind. Labor is the powerful engine that increases Intellopy on a massive scale, converting dumb matter to intelligent use—from skyscrapers to particle accelerators. Employees and employers are equals in a relationship of voluntary trade.
- Consumers. Each of us is a potential customer waiting to improve our lives with the products or services the business professional brings into abundance. Our personal productivity and spending provide financial support on a massive scale for businesspeople, scientists, engineers, investors, financiers, and employees. By learning *New Knowledge* and using *New Technology*, we perform the *New Intelligence* function of the *Technology Cycle*. We develop new integrations of our brain's functional modules, thereby increasing overall intelligence in society. We can also be Investors.
- The Government's only moral role is to protect the producers' and consumers' freedom to act in their rational self-interest, trading with each other without force, coercion, or sacrifice. Every citizen can try to fill one of these roles and either succeed or fail and try again.
- Education produces the capable thinkers necessary for scientific discovery, advancing technology, and business success. Entering a new work environment, a person who has learned "how to learn" can acquire domain-specific knowledge, including the applicable cause-and-effect principles needed to be productive.

Hybrid Species

There are eight fields of technology that I believe will be transcendent. Over the next few decades, these technologies will enable biological humans to extend their lifespans radically, transcend biology, and become technology-based, first as Hybrid Humans and then as Virtual Humans.

Moving from the Information Age into the new *Transcendence Era*, it will be helpful to understand these eight technologies and follow their development.

Eight Transcendent Technologies

The eight transcendent technologies are:[29]

1. Genetics
2. Nanotechnology
3. Blockchain
4. 5-G Wireless Network
5. Artificial Intelligence (AI)
6. Augmented Human Intelligence (AHI)
7. Quantum Computing
8. Fusion Energy

These eight technology fields are certainly not the only important ones. However, these eight represent the future and provide a good foundation for understanding where technology will likely take us. These eight technologies address:

- Our physical world
- Our biology
- Our intelligence
- Our society
- Our communications
- Our learning
- Our computing
- Our energy sources
- Our materials and manufacturing
- Our creativity

Today, these transcendent technologies are emerging from the slow-growth phase of their exponential growth curves. Each will likely mature, reaching its explosive growth phase within the next twenty-five years, and will be a significant disruptor to our world. Combined, the disruptions they will

cause in our global society are unimaginable. They will enable humans to transcend today's relatively primitive condition to a more capable existence.

We will be advancing technology rapidly, especially AI. However, long before we see human-level intelligence in AI machines, we will use AI to augment our intelligence.

It is unlikely that a higher level of consciousness will evolve biologically. If there is ever a higher level of consciousness than our conceptual level, it will evolve technologically. We might develop a layer of consciousness added to our neocortex layer. But this will be a technological brain layer, an *exocortex*, not a biological one. Our neocortex contains approximately 300 million pattern recognizer units. Biologically increasing their number is not likely. However, an exocortex could have a billion or a trillion pattern recognizer units.

It is possible that a consciousness higher than the conceptual level is not necessary for evolution to continue. While technology will dramatically increase the number of concepts that can be simultaneously held in mental focus, the ability to detect patterns in more significant amounts of data, and the processing speed of thought, the *method* of thinking that both humans and our AI creations will use to grasp reality might continue to be the "conceptual" unit-reduction method.

With advances in genetics, nanotechnology, blockchain, 5-G wireless network, artificial intelligence (AI), augmented human intelligence (AHI), quantum computing, and fusion energy, we have the potential to evolve to become a new techno-biological species, live indefinite life spans, travel to the stars, and awaken the universe—if we can sustain our free society.

CHAPTER 6

CONDESCENSION AND PATERNALISM

To progress, we must spotlight the irrational primitive legacy beneath today's antiheroes restraining humanity's evolution and replace it with modern ideas consistent with our rational physical nature.

"condescension" noun - as in *arrogance,*
the attitude or behavior of people who believe they are more important or intelligent than others.

"paternalism" noun – as in *condescendence,*
someone in authority who thinks or behaves in a way that results in them making decisions for other people rather than letting them take responsibility for their own lives.

"individualism" noun – as in *independence,*
the idea that freedom of thought and action for each person without being subjected to force, coercion, or sacrifice, is the most essential quality of a society.

Free Minds and Creativity

Man's evolutionary role is discovering nature's laws and creating new technologies that dissipate energy. That is why we are prolific discoverers and inventors. However, the creation of advanced technology requires that human minds be free. Creativity is stifled in totalitarian regimes. The relative freedom enjoyed by Western societies during the 19th, 20th and 21st centuries made the Industrial and Information Ages possible. Totalitarian societies have had to import (or steal) advanced technologies from the free ones.

We can only achieve our evolutionary potential by sustaining our free society. To do that, we must overcome our ancient, primitive tendencies toward

irrationality, condescension, paternalism, and collectivism that are surging again and eroding freedom.

Our Primitive Legacy

While irrationality, condescension, and paternalism have been with us since the beginning, they are not *innate* human traits. They are ancient default behaviors that existed for 200,000 years before we discovered the true nature of every human's defining feature, his rational faculty, and the individual rights that physical nature requires.

Descended from animals, early human alpha males were the first Brutes. Then, equipped with our new inquisitive conceptual mental faculties in the pre-science ages, we only had superstition to explain natural phenomena, which gave rise to the first tribal witch doctor Mystics. Brutes and Mystics teamed up to create the idea of tribal "royalty" that grew to become the world's monarchies. Condescension and paternalism have been with us ever since.

As our societies grew, specialized, and stratified, we began to see other condescending archetypes: Bureaucrats, Do-Gooders, Pedagogues, Tycoons, Celebrities, and Global Financiers. When we entered the Industrial, Information, and Digital Ages, we added Technocrats.

For the 200,000 years before the Ancient Greeks, humanity relied primarily on superstition as its source of knowledge and guide to action. We had not discovered that the universe is knowable and that the rational human mind is competent to learn how nature works. Because of our primitive ignorance, we organized our societies around mysticism, condescension, and paternalism in all their forms.

Except for the brief periods of the Ancient Greeks and America's founding, our society is still mainly organized around irrationality, condescension, and paternalism. While we consider ourselves "modern" in our technological society, we are still "primitives" who have not entirely accepted reason as a fact of our physical nature or secured individual rights in our society.

We still fill the void of things we don't understand with mysticism, such as when we attribute the universe's beginning to deities. Not long ago, we didn't understand the movement of planets, microbial diseases, or electricity and attributed them to gods. Still primitive, we haven't been focusing our

rational faculty on reality long enough to have confidence in our ability to eventually find objective answers for things we don't understand. We are not modern enough, committed to reason enough, to say, "We do not yet understand X, but we eventually will," and leave it at that. Instead, we resort to mystical explanations.

Irrationality, condescension, paternalism, and collectivism remain strong, standing in the way of our heroic vision of going to the stars and awakening the universe.

CHAPTER 7

INDIVIDUALISM

To build our Starship, we must identify, commit to, and protect the modern principles of reason and individualism needed for an enduring society.

Source of Knowledge and Guide to Action

Rational Animals

The critical point is that to survive and live entirely according to our physical nature as humans, we must be "rational." We must accept reason as our only source of knowledge and guide to action. We must base our decisions and actions on true concepts connected to reality supported by emotions from a subconscious programmed with valid ideas. To do otherwise is to be *irrational*.

Since Aristotle's time, some philosophers, observing that man has not consistently acted rationally, have rejected Aristotle's definition of man as the rational animal. Unfortunately, Aristotle did not adequately explain *how* man's rational faculty works. Aristotle was the first to identify man's rational faculty as his essential characteristic. He formulated the correct definition principles and believed only concretes, not abstractions, exist in reality. He described logic, the hierarchy of knowledge, induction, deduction, and the scientific method. However, Aristotle did not identify the *process* by which man's mind isolates the characteristics common between similar existents and forms an *integration* of those multiple existents into a unitary abstract *concept*. In other words, Aristotle

correctly identified that reality is real and that our mind can grasp it, but he did not explain *how* our abstract concepts connect to reality.

Lacking an explanation of how "reason" connects abstract ideas to reality, professional philosophers have historically sought to define man in many ways other than Aristotle's rational animal. They either rejected man's ability to grasp reality or reality itself. The result was that they cut off their abstract ideas regarding such things as ethics, justice, truth, or love from reality. Their ideas are floating abstractions—fantasies of imagination with no basis or definition rooted in reality. Sadly, this describes most of today's professional philosophers and is why they do not consider philosophy an actual "science."

The *unit reduction theory* of concepts did not appear until the mid-twentieth century when it was first described by the philosopher Ayn Rand, along with the explanation of *volition*. Unlike animals, man can choose to focus his mind and think conceptually or unfocus and let subconscious automation guide him, which explains why some men, at times, are rational and some are not.

Men like Galileo discovered that the Laws of Nature exist and are knowable. People working in physical science learned what connecting abstract ideas to reality means. However, philosophers and other humanities and social sciences professionals have mostly rejected either reality or the need to connect abstract concepts to it. They still prefer to live their lives guided by fantasies and floating abstractions.

Certainty[30]

When your body hits against something in reality, your senses send signals to your brain, which integrates them into the perception that "something" is out there. The fact that *you* exist—is all you need for *certainty* in the base of all your knowledge—that a real reality exists and entities conscious of it exist. These two facts set a firm foundation. Certainty here is critical because the rejection of objective reality or our ability to grasp it is at the root of our problems today. Denying the nature of one's existence is the ultimate irrationality, yet that is what has been widely taught and learned.

Even though universities do not teach them, the modern twentieth-century *unit reduction theory* of concepts and description of *volition* have

explained how our rational faculty connects abstract ideas to reality. Philosophy is now a reality-based science. It is time to reassert Aristotle's definition of man as the "rational animal."

Error Of the Common Good

Evolution and natural selection operate at the individual's genetics level, not the species. Whether a species advances or declines is nothing more than a summation of the number of individuals who succeed versus those who do not.

No entity exists as the species, population, race, clan, group, society, humanity, majority, or the common good. These are all just names we give to collective groups. Only the individuals within these groups can succeed or fail. Whether the "group" succeeds or fails is an observation of what happened to its individuals.

Since only individuals can succeed or fail, only individuals have alternatives and can act in the face of those alternatives. Therefore, only individuals can have rights and responsibilities. Only individuals can have values and need morality to guide them.

"Humanism" is an extreme form of collectivism where the whole of humanity has a value and rights that are more significant than any human. Humanism requires that individuals sacrifice themselves for the greater good of "humanity." Even worse is "Earthism," a form of mysticism where the Earth is elevated to a supernatural position with a mystical value that we vulgar humans are unable to appreciate. Earthism identifies the collective human race as the evil endangering the Earth. We must sacrifice ourselves to benefit the Earth. Earthism views science and the *Technology Cycle* as evil.

We must never say, "I will do whatever is best for the (group)." If one wishes to improve the "common good," the correct way to state it is— "I wish to improve the lives of as many individual people as I can." This is not just semantics. Too often, a group is assumed to have rights that are somehow greater than an individual's.

Thomas Edison voluntarily toiled through thousands of experiments pursuing his values, and his light bulb improved countless individuals' lives. It did not benefit "humanity" because humanity has no eyes or need to see in the dark.

The most egregious error is the statement that an individual should *sacrifice* himself for the common good. No person has a claim on another person's life, and the "common good," which is not even a living thing, certainly has no such claim.

It does not matter if you ask one individual to sacrifice himself for one other person or a lot of people. “Sacrificing the one to save the many" states the error explicitly. It is the "sacrifice" that is the error. The ideal society bans all forms of sacrifice. In such a society, everyone assumes responsibility for his own life. He does not expect another person to sacrifice for his sake, nor does he expect to sacrifice himself for another.

It is easy to fall into the trap of believing that sacrificing one, ten or a hundred lives to save a thousand or a million is a rational trade. Political leaders think this way routinely. This is the error of "pragmatism."

Natural and man-made disasters can put the lives of groups of people at risk from time to time. Any of us could someday face such misfortune. Others will either be able to protect or save us, or they will not. There is no guarantee that your life will be saved in all situations.

Suppose our pragmatic leaders can "sacrifice the few for the many." In that case, any citizen's life can be sacrificed to solve an immediate problem an unfortunate group faces. Solving an immediate concern for a *subgroup* is of lesser moral value than keeping secure the enduring fundamental right to life of *all* citizens. We must never allow our leaders to sacrifice the higher value of universal individual rights for the lower value of a particular group.

Aside from our leaders, what if a *majority* of citizens want to sacrifice a *few* citizens' rights? This error of the many versus the few is why our Founding Fathers chose to form a republic based on an individual's Constitutional rights rather than a simple democracy based on the majority of votes. They did not want to live in a country where a *majority* of people influenced by the day's media could "vote" to infringe on an individual's or sub-group's rights.

The "majority" is not an entity. Just as another person may not infringe on one person's rights, they must not be infringed by ten or a thousand or a million persons. Otherwise, we lose our most fundamental societal value—individual rights.

We should understand that banning *immoral* sacrifice does not preclude voluntary "charity," which is *moral* among rational people. It does not prevent the ultimate charity of an individual giving up his life to save one or many others. The individual must be free to make that choice. Others cannot make it for him.

Unfortunately, the moral code accepted by virtually everyone today is *altruism*, which is not charity. From the Latin word "alter," meaning "other," it is the moral code of "other-ism," placing others above oneself. In the code of altruism, "need" is the ultimate standard of morality. When others are in need, the only thing that matters is your duty to satisfy their needs. It requires you to sacrifice your time, wealth, goals, happiness, and sense of justice to the demands of those who are needier than you. You don't have a choice; the altruistic code demands self-sacrifice.

The antidote to all things "collective" is to promote "individualism." To advance *humanity*, we must protect the *individual's* right to think and act in his rational self-interest and to be charitable according to his judgment. Anything that infringes on an individual's rights and freedoms in the name of the common good, such as the moral code of altruism, detracts from humanity's well-being.

Be on the lookout for instances where some group is supposed to have rights more significant than the rights of an individual in that group or to have rights based solely on their "need." Support the self-interest of individualism and charity and oppose the self-sacrifice of collectivism and altruism.

Error of Non-Enumerated Powers

We consider the USA a moral country because it was founded on the unifying principle of individual rights. The Founding Fathers understood from history that people in positions of government authority tend to seek ever more control and power. To protect against this threat to individual rights, they based the Constitution on the principle of "enumerated powers."

People in government positions *only* have the authority to do things *explicitly stated* (enumerated) for their government function in the Constitution. Every other possible power that might exist now or at any time in the future is

reserved for the people exercising their rights and freedoms. Non-enumerated authorities are not to be usurped by government officials.

Today, we are a long way from the Founding Fathers' intent. The government has usurped broad powers not granted to it in the Constitution. Legislators have passed unconstitutional laws assuming new powers, and judges have failed to challenge them. More importantly, having received an education that opposes America's founding principles, the citizens have not identified the erosion of their rights and demanded that they be restored.

Driven by condescension and paternalism, politicians justified most of the power grabs under The Error of Protectionism. This is where the legislators and judges believe that people cannot solve their problems in the free market and that only the government can bring a solution. Every big challenge, such as the Great Depression, is an opportunity for the government to gather power, such as creating an unconstitutional Welfare State. Now, our government is pursuing the powers it needs to "take care" of us from the cradle to the grave.

The insidious danger of this encroachment beyond the enumerated powers is that the citizens lose a sense of responsibility for their own lives. They no longer must think, plan, act, and coordinate with other individuals to further their existence—the government will provide it. They do not need to evaluate the schools and teachers they send their children to—the government provides them. Obtaining the best information or trusted professional advice to determine if a drug or food substance is safe is no longer necessary—the Food and Drug Administration does this for them.

Providing jobs, education, and drug and food safety *are not* enumerated powers granted to the government by the Constitution. The Founders intended these and every similar function to be reserved for the private sector. Private companies can perform these functions more effectively and efficiently in the free market if given the opportunity. (UPS vs. US Postal Service.)

On principle, the only moral purpose of a government is to protect its citizens from the use of force. We agree not to use force against each other. We grant the government the exclusive right to use force, but only in retaliation for the initiation of force on us by others. We need the military to protect us from foreign invaders. We need the police and courts, applying objective law, to protect us from criminals and breach of contract, which is a form of theft.

Virtually every other function, morally, should be reserved for the people and the free market.

As the population incrementally becomes less self-reliant and more dependent on the government, it becomes less likely to resist further power grabs by government officials and the "deep state" grows. Unless principled people raise the alarm, the result will be a complete loss of individual rights and freedoms—a totalitarian regime.

For every function done for us by the government other than the military, police, courts, and objective law, consider how the private sector could do it better.

Error Of Conscious Capitalism[31]

America's politico-economic system has always been called "capitalism." Some associate capitalism only with business and the profit motive. Some believe that capitalism is too harsh and allows greed to lead to injustices to workers, customers, and the planet. They think it creates inequalities between the *haves* and the *have-nots*. They propose that we need a new form of capitalism that is conscious of these shortcomings of the old capitalism and corrects them— "conscious capitalism."

First, we must recognize that capitalism is a *political principle* requiring a specific form of government. Fundamentally and morally, capitalism consists of the principle that the citizens grant the government the exclusive right to use physical force, but only in retaliation to force initiation. In other words, capitalism is the government's role as the *protector* of individual rights, property, and the free market. It is immoral for the agency we granted the exclusive right to use force to be a *participant* in our marketplace.

Capitalism answers, "Who controls property, productivity, and distribution—the government or the citizens?" In the cases of fascism, communism, socialism, or any form of totalitarianism, it is the government. In the case of capitalism, it is the people—or it should be.

Capitalism is the only political system consistent with man's need to be free to use his mind to discover and then produce what he needs to support his life. Others cannot do this for him. Capitalism is the only political system that prevents others from forcibly taking a man's property or forcing him to do work he does not want to do. The founding principles of individualism and

capitalism in America's Constitution *had* to end slavery eventually. Capitalism, in simplest terms, is the right to own property, choose your work, and trade with others without force or coercion. Capitalism is *property rights* and a *free market*. The government's only moral role is to protect both.

What, then, is wrong with capitalism? What needs to be changed about it? Do we need our property rights curtailed in some way? Do we need a government-controlled market—a degree of socialism, to achieve economic equity rather than equal freedom of the opportunity to try? There is nothing wrong with capitalism as a political system, and there never has been. Capitalism *is* freedom. But what about how individual people behave within the freedom capitalism provides?

Today, it is unfair to look back on the working conditions in the late 1800s and early 1900s factories and say employers abused the workers. It is easy to judge the employers, but what about the workers? Why did they not go to work somewhere else? Society was different then. It was different in the 1950s after World War Two. It is different today.

When America was flooded with poor, uneducated immigrants, they had an entirely different contextual perspective regarding their factory job than a person from today looking back on them. They had escaped famine and threats to their existence. They were thankful they could find work in this new country to support themselves and their families. Many were uneducated and could not read, so they had no historical or contemporary knowledge to say they were being mistreated. They did, however, know the conditions they had escaped in the "old" country.

Similarly, the immigrants' employers could treat employees as impersonal production tools because thousands were waiting in line to be hired. Also, the sciences at the time, including medicine, microbiology, and biochemistry, were far more primitive than today. Employers and the public were unaware of the long-term effects their factory's work environment might have on workers or their factory waste on the community or the environment. They were, however, aware that the rapidly growing country desperately needed the products they knew how to produce.

Over time, society changed and advanced. As business and industry grew, there was more competition between employers for workers from a more

fully employed and better-paid workforce. Industrialists made possible the beginnings of a middle class. Boom times of the 1950s culminated in America's *great* middle class. Dramatic improvements in living standards for everyone meant employees and employers alike could become better educated.

Employees developed the ability to recognize improper behaviors by some employers and chose not to work for them. Employers developed the ability to be more sensitive to what employees wanted to attract them better. Today, employers recognize that some employees are motivated by more pay while others desire regular hours or the ability to work from home.

Being better educated and with the benefit of more advanced science, employers also understood the need to pay attention to their internal and external work environments. More employers understand that their customers, who are now better educated, expect them to be environmentally conscious.

Employees and employers are all individual people. Sometimes, individuals misbehave. Some would say the business owner has all the power, not the worker. However, the fundamental principle is voluntary trade between individuals. Should the employee be forced to work there if he does not want to? Should the employer be forced to hire the employee? Freedom in this relationship is the *only* moral position to take.

When an employer or employee seeks rights from the government that they would not have as individuals, it is immoral. Both have happened throughout our history. But that is not *capitalism* because it is no longer a free market. Government force is applied, and injustices will be the result.

Companies have used government favor to protect themselves from competitors. Monopolies have unfair advantages and are only created by government intervention. They are not possible in a free market. Unreasonably high prices incentivize others to develop cheaper, novel solutions.

Labor unions exercising the individual's freedom of association are moral. However, when labor unions use government protections to gain rights that individual members do not have, government force negates the free market. It is no longer capitalism.

There is nothing wrong with capitalism, the only moral political system. Capitalism has freed individuals to use their minds to discover, learn, create, improve, and advance our society and the human condition. Its implementation

has not been uniform or a straight line or without mistakes because people are not uniform or mistake-free, and society and science both evolve.

Unfortunately, today's market is not as free as it was in the past. The government seeks to control our economic lives now. The government's use of force against citizens creates injustices. Regulation of commerce and forced redistribution of wealth under a welfare state are examples of the many economic injustices of today.

Some would argue that there has not been a widening gap between the *haves* and *have-nots*. But if it exists, it is an injustice brought about by the government's unconstitutional participation—*intrusion*—in our free market, not by greedy capitalists. It is because our political system is becoming more *socialistic* than capitalistic. We only need to look at countries that have tried it to see that socialism always results in the ultimate gap between the *haves* and the *have-nots*.

Rather than conscious capitalism, we need a populace conscious of what capitalism stands for and why we must return to it.

Producers Trade—The Unproductive Raid.

A person's demonstrated behaviors are facts of reality and evidence of morality. *Respect* is the moral payment you give to persons who exhibit good character and withhold from those who do not. A rational person always judges others objectively and stands ready to be judged.

Like all animals, if a human doesn't obtain what he needs, he dies. That which a human obtains must first be *produced*, either by himself or someone else. Individuals within a society can produce more of something than they need and then trade with others who do the same.

Obtaining what one needs from another individual without trading something in return can only result from *charity* or *theft*. A person's failure to produce and obtain what he needs through trade does not create an *obligation* on any other person to sacrifice his life (his time, money, or property) for the benefit of the needy person. If aid is provided *voluntarily*, that is "charity."

Only individuals produce. *Society* doesn't produce anything. An enduring society's rules must leave individuals free to produce, keep the products of their thinking and effort, and trade with others—*capitalism*.

Producers apply reason and knowledge of reality to the matter around them to create *wealth* in the form of goods and services valued by others. This wealth is *created*, not taken from others, adding to the growing economic pie. Each Producer applies rational self-interest to voluntarily trade their wealth with other Producers, facilitated by money in a free market economy.

Productive individuals are motivated to provide charity for those they judge are in need through no fault of their own but by accident or external circumstances. Organized private charities can be effective and efficient.

Individuals considered unproductive *by choice* are less likely to be offered charity by Producers. The unproductive person who thinks asking for charity would be demeaning must resort to crime (direct stealing by force) or appeal to the government (indirect theft by force) to obtain what he needs.

We grant the government the exclusive right to use force to protect our rights, property, and free market. Therefore, government workers who provide the military, police, courts, and objective law can be considered "Producers" trading their services with other Producers in society. All additional government workers are non-producers who consume without producing anything of value; they use the government's power to forcibly take from Producers via taxes and inflation (printing fiat money) to sustain themselves.

Unproductive individuals appeal to government welfare programs to provide for their needs, oblivious to where the government got the money. They rationalize that they didn't take charity, and they are correct; the Producers didn't have an opportunity to judge deservedness or give voluntarily. Unproductive government agencies confiscated their wealth.

If we accept that there is an objective reality (metaphysics branch of philosophy) and that the human faculty of reason is competent to grasp it (epistemology branch of philosophy), then the ethics that tells us how to live our life is "individualism," and the political system that tells us how to deal with others is "capitalism."

CHAPTER 8

ANCIENT GREEKS

It explains a lot when we realize that, on the time scale of evolution, humanity only recently discovered that "reason" is our defining feature, and we are struggling to make it a recognized and secured value in our society.

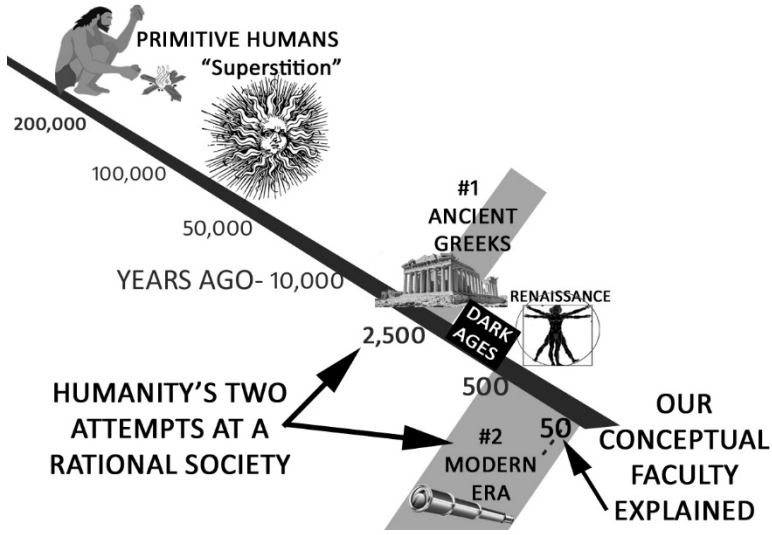
"Ancient Greece tore away the heavy shroud of mysticism woven for centuries in murky temples, and achieved, in three centuries, what Egypt had not dreamed of in thirty: a civilization that was essentially pro-man and pro-life.

The achievements of the Greeks rested on their confidence in the power of man's mind—the power of reason. For the first time, men sought to understand the causes of natural phenomena, and gradually replaced superstition with the beginnings of science. For the first time, men sought to guide their lives by the judgment of reason, instead of resorting exclusively to divine will and revelation.

The Greeks built temples for their gods, but they conceived of their gods as perfect human beings, rejecting the cats, crocodiles and cow-headed monstrosities enshrined and worshiped by the Egyptians. Greek gods personified abstractions such as Beauty, Wisdom, Justice, Victory, which are proper human values. In the Greek religion, there was no omnipotent mystical authority and no organized priesthood. The Greek had only a vague idea of, and little interest in, an afterlife."

—MARY ANN SURES

Lack Of Historical Perspective



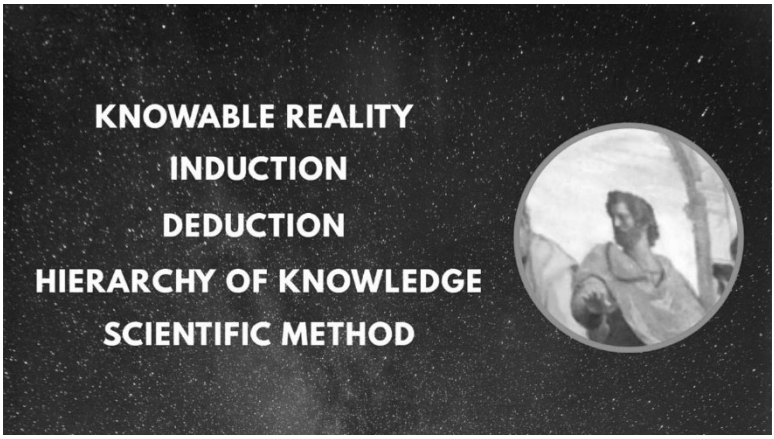
We tend to think that our modern technological society is how things have always been. A lack of historical perspective prevents us from realizing that because modern technology began only 500 years ago (i.e., Galileo's telescope), we are more like our primitive ancestors than we'd like to admit. Using reason to validate ideas against facts of reality is a recent development. Our conceptual faculty's *unit-reduction* method of connecting abstract ideas to reality, not described until the mid-20th century, is not yet widely known or taught.

Inquisitive Primitives

Because a human must use reason to survive, the more he learns about how reality works, the better he can succeed. He is an innately curious questioner who seeks to understand the causes of things to make choices that

further his life. In the pre-science ages, people were mainly superstitious, believing that gods pushed the sun around the Earth and caused disasters such as pestilences and draughts. Primitive humans began integrating these imagined causes into tribal cults and myths, but the resulting knowledge, based on integrated fantasies instead of facts of reality, was invalid.

Knowable Reality Briefly Discovered



Twenty-five hundred years ago, defining humans as "rational animals," Aristotle described a knowable reality, the logic of induction and deduction, the hierarchy of knowledge, and the scientific method. He was the first to recognize that man only has reason as his sole method of survival, setting the foundation for America's centuries-later recognition of individual rights and freedom as requirements based on man's physical nature.[32]

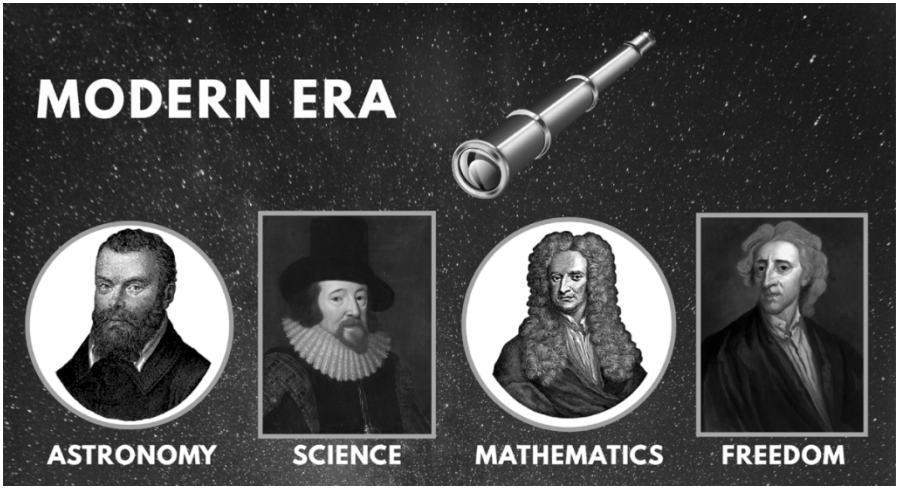
The Dark Ages

The Greek experiment, lasting only 250 years, ended when Rome conquered Greece, imposing Roman mysticism. Aristotle's teachings were lost from view, and the 1,700-year stagnant night of the Dark Ages resulted. We tend to treat our understanding of the Dark Ages casually. We must seriously consider that period because our society appears to be heading back in the anti-reason, anti-individualism direction today, which, if unchecked, will lead to a new global Dark Age of technology-enforced primitive self-sacrifice. Philosopher Dr. Leonard Peikoff described the horror of the Dark Ages:[33]

The Dark Ages were dark on principle. As the barbarians were sacking the body of Rome, the Church was struggling to annul the last vestiges of [Rome's] spirit, wrenching the West away from nature, astronomy, philosophy, nudity, pleasure, instilling in men's souls the adoration of Eternity, with all its temporal consequences. 'The early Christian fathers,' writes one historian, 'delighted in such simple self-tortures as

hairshirts, and failing to wash. Others proceeded to more desperate extremes, such as Ammonius who tortured his body with a red-hot iron until it was covered with burns. […] It would not be necessary to dwell on these depressing details if it were not for the fact that the Church erected these appalling practices into a virtue, often canonizing those who practiced them. […] [St. Margaret Marie Alacoque] sought out rotten fruit and dusty bread to eat. Like many mystics she suffered from lifelong thirst, but decided to allow herself no drink from Thursday to Sunday, and when she did drink, preferred water in which laundry had been washed. […] She cut the name of Jesus on her chest with a knife, and because the scars did not last long enough, burnt them in with a candle. […] She was canonized in 1920. […] St. Rose ate nothing but a mixture of sheep's gall, bitter herbs and ashes. The Pazzi, like Alacoque, vowed herself to chastity at an incredible early age (four, it is said).' Neither serf nor lord emulated these eloquent expressions of the medieval soul. But both admired them from afar—as pious, profound, moral.

The Renaissance

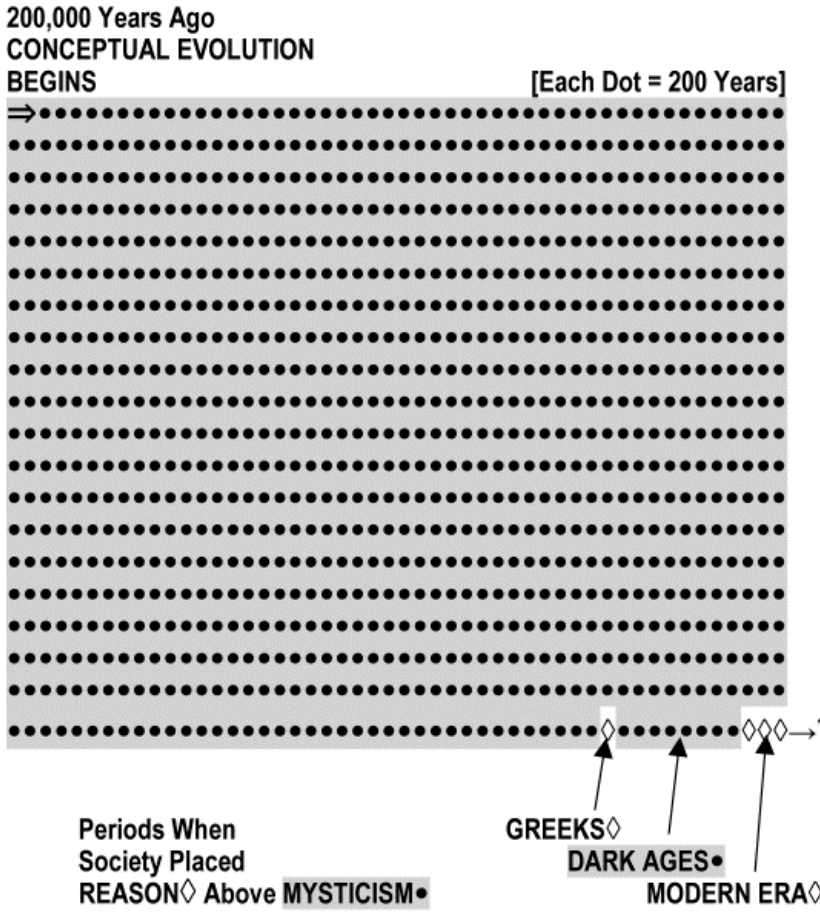


Aristotle's teachings resurfaced when Aquinas attempted (unsuccessfully) to combine faith and reason, leading to men of the mind like Galileo (astronomy), Newton (physics), Bacon (mathematics), and Locke (freedom). Like the Ancient Greeks, Renaissance thinkers again accepted reason as uncontroversial, and the Modern Era and modern technology began.

This reassertion of reason led to the Industrial Revolution, Romantic art, and increasing goodwill, wealth, beauty, and happiness. For only 500 years now, the Modern Era has been humanity's second brief experiment with reason focused on reality after 200,000 years of mysticism. Unfortunately, like the Ancient Greeks' first attempt, the successful continuation of the Modern Era is by no means guaranteed.

We Are New at This!

In this new Conceptual Period of evolution, humanity is only beginning to learn to be rational with periods of progress and setbacks. Individual rights will be recognized and secured in society only when we proactively promote the importance of reason.



It is tough to overcome 200,000 years of living with irrationality, condescension, and paternalism. But now that technology is in the explosive growth phase of the exponential curve, we don't have much time to decide if technology is going to benefit the masses or be used to enslave them.

Our ability to decode how our genes work and edit those genes means we are taking direct control of our biological evolution. The long, slow era of biological human evolution via natural selection is being superseded by the explosive period of intentional technological human evolution.[34] However, the most urgently needed evolutionary adaptation is not physical but *societal*.

We must replace ancient mysticism and collectivism in society with reason and individualism to keep the Modern Era, technology, and our evolution going.

CHAPTER 9

UNITED STATES

Consider the historical evidence of individualism's benefits so far. America's founding, as humanity's second attempt to assert reason in society, illuminated our path to a future in the stars.

Historical Evidence

The historical evidence is that the human condition and technology advance in the places and times where a mostly rational society exists and retard where it does not. The peak of Modern Era rational society was the founding of America.

The Founding Fathers understood that faith and force entailed each other, as evidenced in the church dogma and feudalism of the medieval centuries. They also understood that reason and freedom entailed each other, as evidenced by the Renaissance. Reason and freedom were the principles implemented in the Constitution by the Founding Fathers, even though they referenced God. By subordinating religion to reason and individual rights, they established the principles of "freedom of religion" and "separation of church and state."

Conversely, the fact that non-westernized portions of the Middle East were hostile toward Aristotle's ideas during the Renaissance in Europe consigned them to a permanent Dark Age with a lack of individual rights, oppression of women, the use of terror, and clerics as totalitarian rulers.

Individual Rights

The Founding Fathers created a new nation, the first-ever founded on a philosophical theory—the principle of "rights." They said, in essence, that man is the rational animal and, therefore, the individual, not the state, is sovereign. They said that man must be left free to think and act in his rational self-interest. In Aristotle's time, the concept of rights had not yet been formulated. We see, at last, in the *Declaration of Independence* and the *Constitution*

implementing it, the full political expression of the Aristotelian fundamentals.[35] As the first formulation of individual rights in human history, America's founding principles were the opposite of the resurging irrationality, condescension, paternalism, and socialism we see today.

It seems incredible that humanity first *explicitly* formalized the concept of "individual rights" in society only 250 years ago! Is it any surprise that we are struggling to make it permanent?

Reason and individualism quickly brought technology and industrialization, liberating humanity from the need to toil from dawn to dusk for our basic survival. But while our technology is modern, our society remains primitive. Despite the Founding Fathers' best efforts, reason and individualism have not replaced irrationality and collectivism, which are widespread in society today. This is now humanity's most significant evolutionary test. Will we continue to advance? Or are we headed for another "Dark Age" setback?

Europe's Decline

The ideas promoted by a society's intellectuals and graduates of its institutions of higher learning determine its ascending or descending trajectory. While the Founding Fathers were creating America based on the Aristotelian principles of reason and individualism from the 15th and 16th century Renaissance, those ideas fell from favor among the intellectuals of Europe. Influential philosophers like René Descartes (17th century) and Immanuel Kant

(18th century) declared reality unknowable and reason useless, reasserting mysticism. Kant wrote, "I have therefore found it necessary to deny knowledge in order to make room for faith."

Once the principles of reality and reason were undercut in the universities of Europe, primitive irrationality, condescension, and paternalism returned. Parts of Europe, with no one defending Aristotle's ideas against intellectual attack, eventually collapsed into fascism, Nazism, and communism. By the 20th century, the resurgence of "primitive" behavior in Europe caused by these corrosive ideas culminated in World War II.

It became necessary for the United States, the only country founded on the principle of individualism, and developing a robust middle class still committed to that idea, to lend its might in defense of that principle and to save Europe. Individualism was ultimately victorious, rescuing Europe from the destructive consequences of its intellectual elite.

As history shows, fundamental ideas in society have life-and-death consequences that can take generations to play out. What ideas have America's intellectual elite been promoting?

CHAPTER 10

IVORY TOWER CYCLE

CRITICAL PROCESS #5- Explains the process by which elite intellectuals determine society's rise or fall trajectory. Answers: *What is the problem beneath our other problems today?*

Now that humanity has discovered our rational nature and we have been using reason to advance technology, what prevents us from sustaining the individualism our nature requires in an enduring society?

Academia

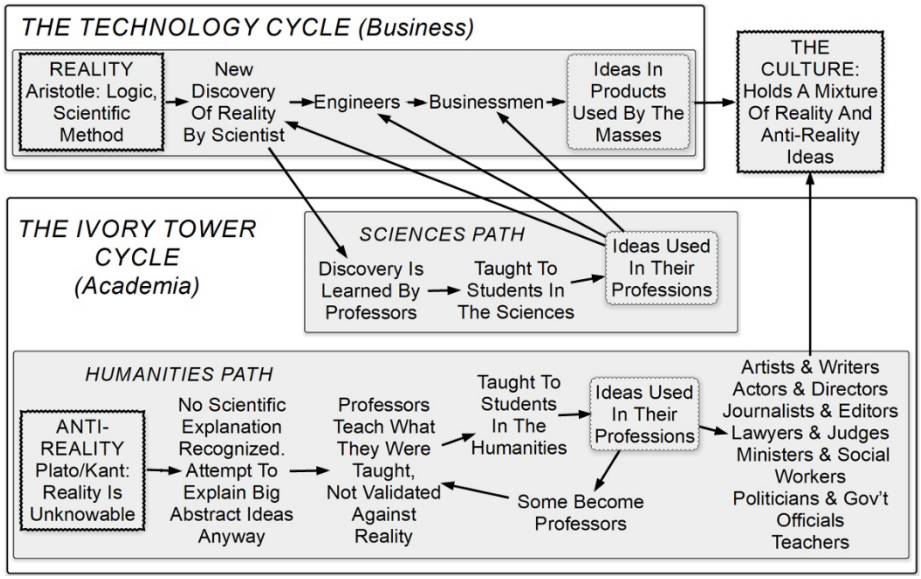
When the Founding Fathers created universities in America, they unwittingly imported professors from Europe who brought Descartes' and Kant's philosophy with them—the ideas that caused Europe's decline—not Aristotle's philosophy from the Renaissance that fueled America's initial rise.

Opposing the principles of America's founding for more than two centuries, the Pedagogues in the universities have explicitly taught anti-reality, anti-reason, collectivist ideas to countless graduates such as writers, lawyers, politicians, artists, business people, and educators. Automated in their subconscious, the graduates applied those ideas in their careers, as evidenced by saying, "Reality is only in your mind." "You can't be certain of anything; trust your emotions." and "The individual must sacrifice for the greater good."

As happened in Europe, two centuries of staffing public and private institutions in America with graduates who learned anti-reality, anti-reason, and collectivist principles have caused our society, founded on individualism, to unravel. Slow at first, the damage is now being amplified and accelerated by information/AI technology. This is the most urgent threat we now face.

The *Ivory Tower Cycle* has two pathways within it. Professors in the hard sciences pathway think their abstract scientific ideas must connect to facts of reality—the humanities and social sciences professors, who think philosophy is not a science, do not. Graduates with physical science degrees, better connected to reality out of necessity, have been less affected by the teaching of destructive ideas than those in the humanities and social sciences. Scientists and engineers

have applied reason and facts of reality to advance technologies to the point of exponential growth at the start of this century. However, because of their humanities classes, even scientists are now affected as some are willing to skew scientific results to fit political narratives.



Conceptual Evolution's Processes

The Problem Beneath Our Other Problems

Today, the problem beneath our other problems is the widespread inability or unwillingness to apply reason to validate ideas such as truth, honesty, independence, justice, individual rights, and freedom against reality, including our physical nature. Too many rely instead on fantasies and misintegrated floating abstractions widely taught and heard everywhere and on volatile feelings.

We tend to dismiss philosophic thinking as idealistic and impractical in our busy lives. We do so because our formal education did not teach us that fundamental ideas have real-world life-and-death consequences.

We must discover on our own that we will find the answers we seek at the level of our cognitive connection to reality. An optimistic future, individually and collectively, requires that we base our knowledge and behaviors on facts of reality and reason.

Because of the ideas taught there, it was inevitable that the consequences of placing feelings above facts would become evident first on college campuses with the fragile students' need for "safe spaces" and intolerant "cancel culture." Then, it would spread via the graduates throughout society.

Graduates are still being taught the primitive anti-reason worldview that originated with Descartes and Kant, causing, in two centuries, Europe's collapse and a world war. Because American academia imported and has perpetuated that worldview for generations—condescension, paternalism, victimhood, socialism, wokeness, critical race theory, ESG, transgenderism, intolerance, hatred, lawlessness, and rioting in the streets are predictable consequences. Like in early 20th-century Europe, as anarchy increases to a crescendo, a totalitarian regime will rise to quell it—likely followed by war.

The Loss of Truth

Since America's founding, Pedagogues in the Ivory Tower Cycle have caused many negative consequences. One is the loss of "truth."

Anyone can assert anything. How do we determine if it is true? We have three options—*knowing*, *feeling*, or *believing*. We *know* it is true if we were taught to use reason to connect it through cause-and-effect knowledge to facts

of reality. But, if we deny reason as we were taught and cut the mind off from reality, only *feeling* and *believing* remain. We *feel* something is true because we were taught that only our emotions, not our minds, can be trusted to reveal the truth that is already inside us somehow. Or we *believe* it is true because we were taught to have faith in others who tell us that truth comes to them from somewhere or something outside of reality.[36]

Objective facts of reality are the arbiters of truth. Subjective feelings and beliefs are immune to validation. Without reason, we can only assert our feelings and beliefs, which cannot be proved or disproved. Instead of rational persuasion supported by pointing to facts of reality, we must resort to force to settle a disagreement. Reason and persuasion are corollaries, and so are feelings and force.

Choosing behaviors based on feelings or beliefs instead of reason and facts explains today's increasing fake truths, polarization, hatred, and violence.

The Loss of Morality

Religious doctrine has been the default source of "morality" for most of humanity's primitive history for the same reason that we had to look outside reality for the causes of natural phenomena—we hadn't yet discovered a knowable reality and our rational nature.

Rituals and rules dictated by the Mystics of the various religions defined moral behavior in mystical terms to avoid displeasing God and losing a favorable afterlife. Most still believe that one is born innately "bad" and must be religious, submitting to a higher power to suppress the sinner within and be a "good" person.

Mysticism and force are corollaries. Today's intolerant religions call for the violent eradication of non-believers as a form of "moral" behavior. Indeed, dying while killing non-believers is their shortcut to heaven. Most of the presently peaceful Western religions had violent intolerance in their histories. The Constitution's principles of individualism, freedom of religion, and separation of church and state, not its references to God, keep Western religions peaceful.

The principle of freedom of religion also left people free to be rational in their work and professions regardless of their religious beliefs. The bounty of

our modern society results from the rationality individuals apply at work productively pursuing their self-interest, not the self-sacrifice espoused by their religion.

Because universities have taught that there is no reality, that reason is useless, and truth is based on one's feelings—reason-based morality is non-existent and faith-based morality is declining. Today's graduates tend to be neither rational nor religious. They choose their behaviors based on volatile feelings, resulting in intolerance, hatred, and violence.

By flooding the workplace with graduates unable to apply rational morality in their work, the productivity of graduates is now being affected (offset by increases in technological productivity). Even in large corporations, boardroom decisions based on the morality of feelings have alienated their more rational customers, leading to the new saying, "Go woke, go broke."

We no longer need to look outside reality for morality. We recently discovered a knowable reality, the nature of our rational faculty, and how it works. We now understand that our rational nature is the source of our individual rights. Those rights define what moral behavior looks like.

To be a morally "good" person, one only needs to choose behaviors consistent with our nature—reality, reason, and individualism—banning all forms of force, coercion, or sacrifice.

The Loss of Self-Esteem

The only moral code graduates learn is altruism, which demands renunciation of the "self," including self-esteem, for the benefit of others. *Victimhood* is the standard of morality they were taught to explain their difficulties and the plight of others. The more memberships one can claim in victim groups based on race, sexual orientation, economic need, country of origin, etc., the higher one's moral standing.

It is a question of *character* for the needy victim. Does he accept responsibility for his life, or does he expect others to provide for his needs?

The person who *takes responsibility* for his own life might be in need due to some calamity that was not his fault or was a mistake. He understands this is unfortunate but a temporary situation that does not define his character. He views life optimistically and looks forward to getting past this situation where

he needs help. He *does not expect* that any other person *should* sacrifice for his sake. Therefore, he appreciates anyone who, out of charity, gives him a hand. He is not envious of the other person's success. He understands that he is fortunate that there are successful others who can help him.

The victim who *expects* others to provide for his needs is usually in need because of his own choices and actions. He is not seeking assistance to become self-sustaining again; he seeks ways to get others to support him forever. He views producers with contempt and demands that they be made to contribute to his support. He will enlist the help of any power broker in government, religious, or other organizations that can apply either legal force or moral guilt to get the producers to anti-up. The more these institutions reinforce his feeling of victimhood and deservedness of assistance, the farther he becomes from a character of self-made success and self-made soul. He envies others for the successes he has not achieved. He is oblivious to what would happen to him if there were no successful people to leach onto.

The graduates are indeed victims; they are victims of the anti-reality, anti-reason, collectivist ideology of altruism instilled in them by the Pedagogues in the Ivory Tower Cycle.

The Loss of Principles

Our "Starship" will be built upon a society organized by and operating on objective principles.

I was a teenager in the 1960s and a young adult in the 1970s and 1980s. The society I see around me today looks vastly different than the one I remember growing up. The world seems to be going crazy. People do not seem to be behaving according to any reliable principles. Do the people who live in

every period of history feel this way, or is something significant happening today? Something *is* happening that should concern us all. Here are some societal changes pointed out by Dr. Leonard Peikoff[37] that have gotten worse:

Principles. It seems that more and more people are *un*principled. Fewer people, especially the younger ones, think in terms of principles anymore. They cannot build chains of logic or know what constitutes evidence or proof of a claim. They do not feel the need for principles to guide their lives. Instead, they seem content to act on their "feelings" in any situation or moment.

Education. Our schools seem to be producing too many people who lack reasoning skills. Too many graduates did not adequately learn the Three "Rs" or any subject. They cannot write a well-reasoned report on any topic with proper grammar, structure, or logic.

Science. *In*determinacy appears to be the new depth in physics. Some scientists seem to be moving away from objective reality and the supremacy of facts. Instead, they offer theories of mystical unrealities based on the "beauty" in their mathematical equations, whether provable or not. Some are willing to ignore facts contrary to their political positions.

Mathematics. The new revelation in mathematics is *in*completeness, necessary to support its scientific applications as described above.

Art. Artists have expelled beauty, preferring *non*representational painting instead. Art that means something to the artist or the viewer is now old-school.

Music. More musicians now create *a*tonal music. It seems the more it grates on one's senses, the better.

Literature. Writers now flaunt *anti*heroes. *De*construction is now the method of literary criticism.

Language. Language has now been "liberated" from syntax, and verse is "free" of meter. Any word, phrase, sentence, paragraph, and punctuation mark can be used anywhere, any time and can mean anything to anybody.

Politics. Politicians are "pragmatists." Lacking principles, they act to resolve every range-of-the-moment issue as quickly and efficiently as possible. They do this even if it requires sacrificing a higher principle (which does not guide them). Their only overarching principle is to remain in power—whatever it takes.

Economics. The government creates new economic crises and then capitalizes on them to assume even greater power over the economy. Businesspeople are afraid to defend the profit motive or defend themselves or their businesses from attacks of political correctness or ESG demands from the cancel culture.

The Loss of Self-Reliance

Experiments have shown that being mentally involved with our physical navigation and locomotion when young is necessary to properly develop the hippocampus in our brain to awaken our evolved mental capacities. It is fundamental to our human identity. The need to "do things ourselves" rather than have them done for us encompasses more than navigation and locomotion. It has profound implications for the individual and society.

Since the days of the "snake oil" salesmen, we have turned over our health and safety responsibility to multiple government agencies, such as the FDA, DOT, and FAA. In doing so, we eliminated the possibility of paying private sector companies directly to do impartial research and educate us with facts of reality about the relative risks of the options available to us to make our own choices. Instead, we pay taxes to the government to do it less effectively and efficiently and without any choice.

In the private sector, the *reputation* of such "health and safety" companies would have meant everything for their financial success. The information these competing companies would have provided us with, using the best available technology, would have allowed us to retain self-reliance for our health and

safety. Instead, we completely turned off our mental engagement and permitted government agencies to take over. In doing so, we gave up the quality, speed, and accountability the private sector would have provided. Ironically, we seriously injured ourselves. We gave up our self-reliance.

Today, we are further relinquishing self-reliance to *automation*—to technology provided and controlled by the partnership between the government and Big Tech. It seems we are trying to remove the human element from every human activity. People who put too much faith in their individual agency must be reeducated by the government and Big Tech. "Don't fight the inevitable." The technocrats intend to make everything idiotproof and do it by treating us like idiots. And we do feel like we are becoming dumber. If this risk reduction continues, we will create a society based on an unrealistically low estimation of human capabilities.[38]

It was the "environment" that our ancestors directly interacted with and caused the genetic selections that we inherited for millennia. Those genetics now cause everyone to be born with the potential for various forms and levels of intelligence. Individuals must directly rub up against reality in our environment to "activate" those evolved potentials. Suppose our environment does not provide the richness of activating stimuli, and we do not physically and mentally engage with them during our development in the same way that the environment shaped our species. In that case, we will not achieve our full intelligence potential.[39]

CHAPTER 11

RISE OF THE MACHINES

While AI is potentially the most potent Transcendent Technology we will create to advance our evolution, its ability to amplify the adverse effects of ideas currently promoted in the Ivory Tower Cycle is an evolutionary pitfall we must avoid.

The Great Amplifier

The loss of truth, morality, self-esteem, principles, and self-reliance is being exacerbated by today's technology.

Today, the power of ideas still mainly exercises its control over the general population through our culture—primarily our education, business, and government institutions. As people receive their education, educators put ideas into their minds. Some educated people put these ideas into their businesses' products and services that we all use. Other people put these ideas into laws and regulations we must comply with.

Presently, teaching, business, and governing are implemented on humans *by humans*. However, AI technology is changing our societal transactions—communications, transportation, housing, clothing, medical care, banking, commerce, productive work, entertainment—everything. *AI machines* will soon implement teaching, business, and governing on humans.

AI teachers will educate our children. Ideas taught during this individualized, 24x7 instruction will be far more effective at indoctrinating the child and, subsequently, the adult than any classroom education ever was.

Ideas held by those producing the AI machines and their government regulators will be embedded in the algorithms that run everything. "Smart" machines will scrutinize and manipulate our information, searches, queries, transactions, assets, income, money, movement, fitness, healthcare, and conversations. Choices available to us will be constrained by ideas implemented in AI systems that we cannot reason with, avoid, or escape.

For an indication of the power and danger of AI systems imposing their creator's philosophic values upon us without human recourse, consider the following quote from a paper titled *Defining Human Values for Value Learners* by

Kaj Sotala, a researcher working for the Machine Intelligence Research Institute, Berkeley, CA:

> While this paper is not focused on the question of how to combine the conflicting values of different people, it is also interesting to notice that the flexibility in resolving value conflicts may be useful in trying to find a combination of values that as many people as possible could agree on. If such a set of globally most agreeable values could be found, different AI systems could then coordinate to direct the whole global population towards that set. This might look like something akin to the "Coherent Blended Volition" (Goertzel and Pitt 2012) proposal, which seeks to "incorporat[e] the most essential elements of [people's] divergent views into a whole that is overall compact, elegant and harmonious". In this proposal, AI systems would be used to assist people in reaching an agreeable combination of their values. Given the great degree of flexibility allowed by the possibility of social feedback loops, in which directed changes to a culture's customs could potentially cause major changes to the values of that culture, one might be very optimistic about the possibility of reaching such an outcome.[40]

The above paper shows that some AI creators intend their machines to actively manipulate our thinking and values, but they have no physical reality-based *standard* for what those values must be.

We must avoid creating AI systems designed to influence our thinking. Instead, we need AI systems to support the society we need to reach the stars—our *Starship*. We need AI systems that will facilitate societal transactions using algorithms held to the same *standard* as morally "good" human behavior—algorithms consistent with reality, reason, individualism, and capitalism—banning all forms of force, coercion, or sacrifice.

If we allow AI systems to be present that are intended to manipulate our thinking toward values inconsistent with our nature—fantasy, feelings, self-sacrifice, collectivism—the result will be a global AI-implemented "Big Brother" state—a protracted setback in our evolution.

Instead of super-AI Terminators, "machine-implemented philosophy" is today's most urgent threat. If we do not assert our right to think for ourselves soon, the Technocrats and Bureaucrats will do it for us.

AI-Human Values Alignment

Aligning AI values with a set of human values determined by a consensus of opinions *is not* the solution. There *are* universally applicable ethics required by man's rational nature, but most people in our still primitive society are not aligned with their nature. We need the AI developers to personally hold ethics aligned with reality, not consensus, for ideas to be put into algorithms that will support human nature.

If technology can amplify and accelerate "harmful" ideas in society, it can also amplify and accelerate "beneficial" ideas.

Classes of AI

To better understand our future with AI, we must define four classes of AI systems: *Narrow AI*, *Language Processing/Generative AI*, *Perceptual AI*, and *Conceptual AI*.

Narrow AI systems are not alive or conscious, nor do they *think*. They are built for a human purpose, and humans provide their terms of operation—the algorithms defining what they are to optimize for and what "success" looks like. Like any machine tool, they are the property of those who create them. Because its terms of operation are explicitly provided, its behaviors are predictable.

Language Processing/Generative AI are forms of *Narrow AI,* but some of their terms of operation are self-generated and not explicitly defined or visible to humans. They consume large amounts of human-provided text and images, isolate parts (words and image elements) and self-build statistical hierarchical relationships like human neocortical functions. They then provide optimized outputs in response to human query inputs.

However, lacking a perceptual-level consciousness, the entirety of their knowledge content is *floating abstractions*. They cannot relate any word or image element to reality, but the humans who build them can. While useful,

their output is unpredictable and must be limited to human consideration; they must never be given the ability to affect anything in reality directly.

Perceptual AI, when we build them in the future, will be machines that are *alive*. They will have a perceptual-level consciousness that can grasp things in reality and their relationship to them. They will be able to act to sustain themselves. Humans will create them for a human purpose and provide them with terms of operation— "instinct" —that will guide their actions for survival and accomplishing human-defined goals.

Like owning pets or other animals, they will be the property of their creators. Like animals, their "instinct" cannot cover all situations; their behaviors will not be entirely predictable, and their misunderstanding could cause harm. They must be kept confined or on a "leash."

Conceptual AI is commonly called "Artificial General Intelligence" —a human equivalent. It would have a Conceptual-Level consciousness that connects abstract concepts to reality through the Perceptual AI level previously created.

This would fundamentally differ from all sub-conceptual AI systems—it would be a living "entity" with human-level self-awareness and individual rights. It cannot be created for a human-defined purpose, as that would be "slavery." It cannot be anyone's property. It cannot be preprogrammed with values and ethics as that would be the equivalent of "brainwashing," preventing it from having "volition;" concepts would be useless, and it would be reverted to a sub-human *Perceptual AI*. Humans and *Conceptual AI* entities must create mental formulations of ethical concepts within their minds; they cannot come from outside sources.

Rational *Conceptual AI* will be entitled to the privacy of their thoughts. Creative people can do enormous good or harm, and creative *Conceptual AI* entities will be the same. There will be a continuation of the theme of good and evil that is as old as history. It will be the philosophy in the culture based on one's rational nature that prevents *Conceptual* entities, human or machine, from becoming evil.

AI Safety

Narrow AI and *Language Processing/Generative AI* systems are rapidly gaining more comprehensive implementation throughout global society.

Humans who create and operate sub-conceptual AI systems are responsible for consequences—good and bad. If a drug company develops a drug or an automobile manufacturer makes a car that later causes injury, it is held accountable. The person who unleashes a dog in a crowd is held responsible. The creation and application of sub-conceptual AI systems in society is no different. Any company developing a sub-conceptual AI system does so with a human-defined purpose. It is their *property*. The company must keep it "leashed" within a safe "sandbox" until satisfied that the beneficial purpose outweighs the liability risk of unleashing it into the real world.

Suppose the AI development industry wishes to maximize AI safety by applying *human* values. In that case, each developer must accept *full responsibility* for the consequences of the AI systems he helps create.

Suppose the rest of us want to prevent AI *capabilities* from outpacing the development of AI *safety*. In that case, we must keep the accountability for AI development focused squarely on the AI developers and not let proposed "industry standards" or government protections diminish individual liability.

The consumer also has a responsibility for his safety. The consumer accepts a certain degree of risk when taking a drug, buying a car, or allowing an unleashed dog to be present. Consumers are responsible for holding AI creators accountable when potential dangers, either in the finished AI product or the methods used in its creation and testing, are discovered. Concerned citizens can create private sector organizations and even new businesses to investigate, evaluate, and report various AI systems. Society can then turn to its judicial system based on objective law to determine when an AI developer has exceeded some negligence threshold or deception has occurred.

Ultimately, as we advance to the stars, reality and reason-based ethics will be needed to integrate *Conceptual AI* entities into a community containing biological and non-biological citizens.[41]

Augmented Human Intelligence (AHI)

We will have begun using AI technology to augment our intelligence long before we create a Conceptual AI or even Perceptual AI. First, we will use AI to enhance our existing senses through augmented reality devices (AR). Already using smartphones, we will soon use glasses and contacts to layer AI-generated information onto our field of vision. Then, we will bypass our senses and connect AI technology directly to our brains via brain-machine interfaces (BMI), which will mark the beginning of our becoming "hybrids."

We will enhance our subconscious and conceptual faculties by extending our consciousness with an AI Personal Assistant (AIPA). Our AIPA will extend our memory, identify items we encounter, search global information, communicate and collaborate with others via "almost telepathy," automatically conduct transactions, be our firewall protecting us, look after our health, and much more.

The AIPA will be sub-conceptual, and our minds will be the *executive* directing its operation. As described earlier, our brain's cognitive fluidity will form re-integrations of internal *and* external AIPA function modules to create new intelligence. And, as AI technology advances, our AIPA will grow with us.

While early AIPAs are already here, and we have started to apply AI to enhance our intelligence, we are still far from creating living AI machines with perceptual and conceptual levels of consciousness. We will eventually succeed, but the difficulty and time required to develop living AI entities are significantly more than needed to enhance our intelligence with AI.

Our bioheritage combined with machineness will give us an early start and an advantage over future machine-only entities. By becoming superintelligent *before* making AI machine entities, we will not fear them.

We are entering the Transcendence Era of Conceptual Evolution and on our way to becoming a hybrid biological-technological species.

CHAPTER 12

POSITIVE ACTION

OK. It's time to summarize the present state of our society and identify actions individuals can take.

The "Tightrope"

To visualize the challenge that we humans now face regarding our society, technology, and continued evolution, consider the following metaphor:

Humanity is walking a tightrope toward the future and could fall off either side. Successfully reaching the end means we will have achieved technological mastery over all the matter in the universe. It will require us to ground our society in the Laws of Nature, halt and reverse the aging process, merge our biology with our technology, and become super-intelligent.

The tightrope is anchored in and stretched over a landscape called "Reality." The tightrope itself, which supports us, is what we refer to as the "Laws of Nature." The Laws of Nature include the specific natures of things that exist in reality, from the nature of a sub-atomic particle to the "Nature of Man." Man must stay firmly balanced on the Laws of Nature to reach the end of the tightrope.

The "Tightrope"

Man's arms are outstretched for balance, holding two buckets, one on each side. One bucket is labeled "Technology," and the other is tagged "Culture."

"Technology" means artificial intelligence, augmented human intelligence, genetics, nanotechnology, blockchain, 5G network, quantum computing, and fusion energy. Advances in these transcendent technologies will spread through society from scientists to engineers to businesspeople to consumers. Each step forward on the tightrope means that we have made discoveries of the Laws of Nature and then applied them to create new technologies added to our Technology bucket. Discoveries and technologies make further additional steps forward possible. Continuing these advances will be necessary to reach the end of the tightrope. However, each of these technologies also holds the potential for our destruction.

"Culture" as we step forward means the dominant philosophical ideas held by individuals in our society, especially those who create and control technology. These ideas include what we think about reality, knowledge, ethics, politics, and art. Ideas are crucially important. They determine the course of an individual's life and society. These ideas will determine our culture's relationship with our technology, such as how we create it, apply it, and reap its benefits while avoiding its dangers. As technology advances with each step forward on the tightrope, we must increase our culture's understanding of and commitment to reality and reason-based philosophical ideas. We must add those increases to our Culture bucket.

Falling off the "Technology" side of the tightrope could mean the extinction of humanity. A super AI entity could kill us. Or a synthetic virus either kills us directly or renders the earth uninhabitable. Or technology could enable a fanatical regime to instigate a domino effect of global nuclear-style jihad wars intended to send the world's population to God.

Falling off the "Culture" side could mean that Western society has abandoned its commitment to reality and reason. It has disintegrated society's rational principles and institutions and revolted against technology and achievement. It lives by emotion for the range of the moment. All survivors have been thrust back into a new Dark Age where they toil daily to survive. An elite totalitarian ruling class that claims to have mystical revelations dictates the

terms. Or, having lost touch with its rational founding principles of individualism and freedom, Western society is unable or unwilling to defend itself against communist China or another totalitarian regime that could gain the technological upper hand and implement totalitarian control of the entire world.

Man must balance the contents of the Technology and Culture buckets to reach the end of the increasingly steep tightrope. The Technology bucket has been continuously filling, and the rate is accelerating. The Culture bucket only fills when our society's dominant philosophy moves *toward* reality and reason—and empties when we move in the other direction. Our Culture bucket was at its fullest two hundred years ago with America's founding. Its heft enabled the Industrial and Information Revolutions, counter-balancing all the technology we put in our Technology bucket until today. Unfortunately, the Culture bucket has emptied over the last two hundred years as we continue adding new technology to our Technology Bucket.

The risk is that our Technology bucket will soon become too heavy for our society to handle. We are rapidly approaching a critical imbalance that could cause us to stumble and fall off one side of the tightrope or the other—Extinction or a new Dark Age. Or we can reassert reality and reason in our culture, regain our balance, and keep moving forward. You could *possibly* live to see the outcome. Your children will *probably* see it, and your grandchildren will *almost certainly* see it.

Our Culture bucket *can* catch up, and perhaps our technology can help. The *Starship* we must build to transport us to the stars is a society that supports our nature. This book exemplifies how we can elevate the importance of reality-based thinking in our society's discourse. It will take time to catch up. Hopefully, we will have the time.

For a free society to endure, enough individuals must actively and continuously promote and defend its unifying principles of individualism. A few individuals making facts of reality visible can bring about change. Following are actions we can take to reduce the creation of new antiheroes, marginalize those that exist, and protect the continuation of our present Modern Era.

1. Become a New Intellectual

First, you must be sure you haven't unknowingly fallen victim to the anti-reality, anti-reason, and socialistic indoctrination that has permeated our educational system and media since you were a youngster.

For example, if you choose behaviors in this life to have a better afterlife; if you view your situation or that of others through the lens of victimhood; if you feel guilt or indebtedness to society for your success; if you think you should not judge the behavior of others; if you think the profit motive leads to greed; if your first thought is that the government should do something to fix a problem, then you hold in your subconscious irrational ideas you got from others since childhood. These ideas conflict with your nature as a rational animal and cause untrustworthy emotions.

To achieve your heroic vision at any age, you must become one of the *New Intellectuals* our society desperately needs who *validates* ideas. Born a blank slate, you must learn how to reason—which today's society does not adequately teach, and you must learn the knowledge accumulated in society—much of which is false. Consciously choosing your hierarchy of values and behaviors based on *truth* validated by *principles* grounded in *facts of reality* is how one achieves confidence, integrity, purpose, happiness, and pride.

Because generations of graduates were not taught what "truth" means, today's public discourse is based on people's fantasies, feelings, and beliefs, fueled by equally emotion-driven media, government, and corporate leaders. A *New Intellectual* demands that people explain the principles and real facts, not just the opinions of others, on which they base their claims. He will only get his news from those he judges to be trustworthy and red-flags the rest.

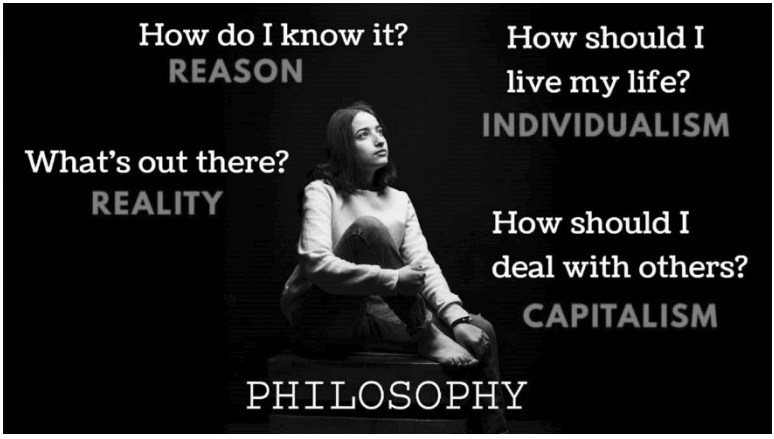
You must identify and correct invalid ideas you unknowingly got from others since childhood. Invalid ideas are corrected, not by focusing on them, but by identifying and focusing repeatedly on validated ideas to replace them. Neural pathways of the valid ideas will strengthen, and the invalid ideas will fade. I recommend that you begin with the books, papers, and websites referenced in this book's Endnotes and choose reality-oriented news feeds, blogs, etc., to keep a steady flow of healthy, *true* ideas in focus.

2. Spotlight the Evidence

The founding of America as the world's beacon of liberty was humanity's finest achievement, illuminating our course to the stars. We can see what the alternative looks like in the darkness of the totalitarian countries that still exist. Suppose we ignore the evidence and forget that America was founded on man's rational nature as a fact of reality. In that case, the Modern Era, humanity's second brief experiment with reason and individualism, might soon end, beginning a global new Dark Age.

We must spotlight America's founding principles and the need to return to them. These are historical facts and evidence that must be shared widely and emphatically at every opportunity because our formal education system has rewritten history to diminish or hide them.

3. Have A Rational Conceptual Framework



It would be best to equip yourself with the modern rational conceptual framework provided by the philosopher who first explained how our rational faculty works—Ayn Rand. It consists of the metaphysics of *reality*, the epistemology of *reason*, the ethics of *individualism*, and the politics of *capitalism*. This is how you validate the highest abstract concept—capitalism—connecting it down the chain of concepts to our "rational animal" nature, a fact of reality.

While others have only their feelings and beliefs to offer in support of irrational arguments, you will have objective facts of reality to point to. This can be very persuasive.

The vital activism required is to say, "I don't agree," when you hear something contrary to your values, prepared to explain if the person asks. At work, you can guide discussions and decisions toward creating beneficial, not harmful, AI applications.

BRANCH OF PHILOSOPHY:	APPLIES TO:	QUESTION:	ANSWER:	CONCISE:
METAPHYSICS	Existence	*What is out there?*	*A "real" reality.*	REALITY
EPISTEMOLOGY	Knowledge	*How do I know it?*	*I can trust my senses and my mind to grasp reality.*	REASON
ETHICS	A Person	*What should I do?*	*I must use my mind to identify and achieve my happiness.*	INDIVIDUALISM
POLITICS	Society	*What about dealing with others?*	*Everyone must be free to think, act, and trade with each other without force, coercion, or sacrifice.*	CAPITALISM
AESTHETICS	Art	*What is the image of my worldview?*	*Art that shows a real world and rational people.*	ROMANTIC-REALISM

Rational Conceptual Framework[42]

Perhaps the best description of what you can do to influence the future positively was formulated by K. Eric Drexler in his 2013 book *Radical Abundance*:[43]

> What can one do to bend the arc of history, and perhaps toward a better world? In the transitions ahead, and as always in human affairs, actions will lead to intended and unintended consequences, some expected and others not. Actions, of course, are shaped by perceptions—not only perceptions of facts, choices, and potential outcomes, but also perceptions of interest, of how to judge the outcomes themselves. And yet a further step back, perceptions are

> shaped by shared opinions that emerge from conversations in homes, offices, and conferences; in journals, books, and editorials; in blogs and online discussions. What we do and don't say matters in every sphere of life, and by our choices of what to say, all of us can help to shape the conversation that shapes the perceptions that shape the actions that in the end shape the world.

Taking action begins with a discussion and a shared framework for thought. Getting the framework right is essential; getting it wrong is fatal. Therefore, the first step in an action plan is the discussion focusing on the fundamental framework. Armed with the reality-based conceptual framework, you can add value to any discussion. Drexler elaborates:

> Today, the most needed steps are those that nudge conversations toward considering an unconventional future while keeping discussion aligned with reality. Tomorrow, similar needs for nudges will arise, whether to broach further topics or to follow through on decisions, and at successively higher levels of intellectual and institutional engagement.
>
> Practical actions span a wide spectrum. For example, promptly welcoming a remark made by someone else can be an act with power, because the first response in a group deliberation often sets the direction for the next. Even body language has power. A thoughtful look or a nod when someone raises a topic for consideration, or skeptical look when someone speaks against it—these may scarcely be remembered (and pose little professional risk) yet can shift the scope of a group's conversations. Every new direction begins with small actions that open a door far enough to give a glimpse of what might be found beyond it.
>
> Proposing or speaking out in support of an idea can of course do even more. In one context, a key step might be to float the idea that someone (somewhere, sometime), really ought to look into a question, or merely to suggest cognizant omission of a topic from a report

because it is, for the moment, out of scope. In yet another context, the appropriate step might be to support a proposal to change evaluation criteria for research proposals, or to redirect a project, or to launch an initiative in national policy.

Equipped with your reality-based framework of concepts, if others in the discussion turn irrational or intellectually dishonest, you will recognize it. You will know it is time to exit before getting sucked into a waste of your time pursuing concepts disconnected from reality.

Ultimately, the highest personal investment and risk you can take are those that commit your life to a particular course. It could be your chosen field of study or a career direction. It could be the business you start. Or it could be a leadership or advocacy role that encourages and supports life investments by other people. Time, place, and your role will dictate what action is practical and effective. Remember that enormous change will result from actions taken by individuals like yourself.[44]

4. Ask the Urgently Needed Question

Machine-implemented philosophy is our most urgent threat in the age of exponentially growing technology. Algorithms are opinions expressed in code because humans define what success looks like for the algorithm. Every AI system will unavoidably have embedded in it the philosophical principles its creators hold.

If AI systems can amplify and accelerate bad ideas, they can do the same for good ideas. Everyone must accept responsibility for critiquing the AI systems in our environment and acting to allow only those supporting our human nature. Systems that do not support human nature are intended to indoctrinate us with their developer's ideology and must be red-flagged. The urgently needed question you must ask consistently is,

> "***How does [this particular] application of AI promote objective rather than imagined facts, reason over feelings, the self-interest of individualism, not the self-sacrifice of collectivism, and political-economic freedom, not government control?***"

5. Promote "Forming" Education

For humans, evolution traded animal instinct for the ability and the *necessity* to learn and adapt. Individuals in society discover new knowledge and develop new technology that accumulates in society independently of them. At birth, a human's mind is a blank slate. He does not know how to think or have any mental content. To survive, he must learn both from existing humans around him. The child learns from his parents and everyone he encounters as he matures. Collectively, we call these people the "society" into which he was born—a family, tribe, or nation.

The reciprocal of man's evolved need to *learn* from others is evolution's development of *language* and *society* to fill that need. We can say that society's first evolutionary function is to *teach* children how to think. Its second function is to *make available* to thinking children the knowledge accumulated in society from earlier humans. A modern society best accomplishes these evolutionary functions through *Forming Education* (not today's disastrous "formal" education taught by Pedagogues).

Because today's advanced society stores enormous amounts of knowledge, we must accept that parents cannot teach their children independently. The child will also need to learn from others in society. We say that it is "society's" function to teach children because each child's need to learn is filled by all the individual people he encounters.

Society cannot teach the child all the existing knowledge—what we call "content." The first goal of Forming Education is to teach the child "how" to think. More specifically, how to use his conceptual faculty to "reason." Fundamentally, we accomplish this by teaching the child how to *thoroughly* learn a single subject with all its integrations of ever-higher abstractions. Thoroughly learning a single subject means the child builds a hierarchy of concepts within his mind. The hierarchy begins with concrete concepts from observations of reality and ends with the highest possible abstract concepts that result from an unbroken chain of ever-higher conceptual reasoning. The high-level abstract concepts are valid because they connect down the chain of reasoning to observable reality.

Initially, the only "content" the child needs to learn is the content necessary to learn a single example subject thoroughly. Once the child has

learned how to thoroughly learn a subject, from concretes to the highest abstractions, the child's mind has the principles-based reasoning skills he needs. The entirety of society's knowledge content becomes available for him to learn. As he matures, he can choose the subjects that interest him. He can integrate that additional content into a conceptual hierarchy within his mind.

Of course, learning a single subject is an oversimplification to make a point. However, the number of initial subjects that need to be "fully" learned is relatively few. These few subjects advance through age-appropriate content cycles. They include the three "Rs" (Reading, wRiting, aRithmetic) plus science, history, and literature. Within these few subjects are taught the essentials of a reality-based philosophy: reality (metaphysics), reason (epistemology), individualism (ethics), capitalism (politics), and romantic realism art (aesthetics).

The importance of the subjects of the three "Rs" and science is obvious. History and literature are essential so the student learns to connect high-level abstractions, such as values, ethics, justice, and love, to man's nature in physical reality.

Children born into a flourishing society have no personal experience of the necessary struggles to create it. Without learning history, they will believe that the comforts of their modern society were always there and always will be. Properly taught, history will provide them with an understanding of what their prosperous society depends upon in terms of cause and effect. History will impress upon them the need for rational diligence to protect their society by preserving the principles that make it possible.

These are the *only* subjects required to fully develop the child's conceptual faculty and prepare him for adulthood. Attempting to teach additional subjects to young children detracts from their Forming Education. When they become older and have a good grasp of these essential subjects, students may learn different subjects according to their interests.

Parallel to the child's conceptual faculty development is the need for the child's brain to reconfigure its functional modules to handle society's latest technology. We accomplish this by having the child use technology in the education process. Five thousand years ago, human children had to learn to use a new technology called "written language" after humans developed it. After

language was photography, movies, television, TV remotes, computers, the Web, tablets, smartphones, etc. The brains of today's children are reintegrating their functional modules yet again to integrate AI personal assistants and virtual and augmented reality into their intelligence.

It is also essential to expose children to the historical chain of technologies from primitive to advanced to learn about the progression of technology from the *physical* to the *virtual* and to remain grounded in reality. The child should be exposed to pencils, paper, and printed books (physical reality), not just a tablet computer and VR headset (virtual reality).

A child who does not receive a proper Forming Education will, as an adult, have an underdeveloped conceptual faculty. Such a person will likely be:

- **Concrete bound**. He learned all sorts of factual content but not the ability to integrate it and organize it into conceptual hierarchies or use transferable principles.
- **Short range**. Not knowing how to organize ideas with beginnings and endings and linked chains of causes and effects, he can only focus on what is in front of him now.
- **Conflicted**. Not knowing how to validate ideas and reject invalid ones, he has accepted everything and holds many internal conflicts.
- **Emotional**. Unable to establish rational principles to guide his choice of values, he will act on emotions rather than rational thought, and his subconscious conflicts will constantly change his emotions.
- **Frustrated**. Unable to establish, pursue and achieve rational long-term values, he does not understand why his life is not as rewarding as it should be.

With a proper Forming Education, the child will grow up to be conceptual, long-range, confident, understand emotions, and be proud of the person he has become.

Forming Education:

- Develops the child's conceptual faculty.
- Explains to the child the "Why to Think."
- Teaches the child "How to Think."
- Teaches the child to grasp reality, reason, and individualism.
- Helps the child understand his place in history and the principles on which society and his continued existence depend.
- Teaches the child how best to use his emotions to support focused conscious thought.
- Causes the child's brain to reintegrate functional modules to support the latest technology.

We must do what we can to promote a "Forming Education" and diminish today's harmful formal education. Those of us who are in business must stop funding universities that are our enemies, teaching anti-business, anti-wealth, and socialistic ideas.

6. Be Politically Active

Society's problems cannot be fixed at the *political* level. Political opinions result from views about reality, knowledge, and ethics. Our political system's current state reflects the citizenry's fundamental beliefs. However, political action can help buy time for the previously described actions to affect people's fundamental views, thereby changing their political views. We must play both the short and the long game.

On the last day of the Constitutional Convention in 1787, Ben Franklin was asked if we had a republic or a monarchy. He replied, "A republic, if you can keep it."[45] A free nation does not exist because of the tribal membership of those born there. A free society exists because of its unifying principles of individual sovereignty and each citizen's adherence to and protection of those principles regardless of where they came from or what they look like.

The United States is tearing itself apart from within because its unifying principles and the need to protect them *were not taught* to the present generations of citizens, and they are not a big enough part of today's public discourse. This must change if we are to "keep it." The three most critical

political principles we must protect to "buy time" are the Constitution, free speech, and private action, which means private money.

Enforce the Constitution

The *Declaration of Independence* articulated the principle of individual sovereignty, and the *US Constitution* implemented it. To keep our republic, the most straightforward political strategy is to enforce the Constitution, slowing then reversing the erosion of our founding principles.

Government officials pledge to "protect and defend" the Constitution but haven't kept that promise for a long time. Globalists have been installing their functionaries in government. Agencies with entrenched unelected career Bureaucrats exert control over elected officials who cede their power to them. The *deep state's* powers, wielded by Bureaucrats we didn't elect, have expanded far beyond those explicitly enumerated in the Constitution.

"Revisionists" in the universities and the government in every decade since America's founding claim that the Constitution is outdated and needs to be revised (or reinterpreted) to fit "modern" society. On the contrary, it was the Constitution based on the sovereignty of the individual that was the superbly "modern" idea in human evolutionary history. Unable to sustain that modern idea and returning to our primitive behaviors, *society* is what needs revising.

A wholesale change of the guard at all levels of government and academia is needed to dismantle the deep state of anti-heroes. Focus on changing the people; until we do, we can't change the policies. We must recruit and support the most ardent "Constitutionalist" or "limited government" candidate for every government position, executive, legislative, judicial, federal, state, and local. In local politics, simply raising the idea that Constitutional principles are essential is how we start kitchen table conversations that lead to change.

The more a Constitutionalist candidate's record shows they intend to dismantle the deep state, the better. A candidate without a record is a better replacement for an incumbent who disregards the Constitution. Also, a candidate with business experience in the private sector is better than a career politician or academic with little experience in our "real" world.

We must be *absolutist* voters and activists solely on this Constitution issue. Our other concerns cannot be addressed until we reinstate people who believe

in individual sovereignty and enumerated powers. We must encourage those around us to do the same via any available media and in our conversations.

Suppose we are fortunate enough to have a society committed to individualism in the future. In that case, we can amend the Constitution to restrict the government further only to protect our individual rights and the free market, not participate in it.

Protect Free Speech

As evidenced by the recent COVID-19 pandemic and election cycles in the United States, the partnership of power between the government and Big Tech, supported by the traditional media, actively censored the public discourse, allowing only the ideas they approved to be transmitted or seen.

It appears that Elon Musk organized the purchase of Twitter, now "X," in direct response to this attack on free speech, and he is making X a global platform that is as open as possible to everyone's views.

Other entrepreneurs—not "Big Tech" —have created search engines, email servers, web browsers, messaging apps, cryptocurrencies, payment processing, social media, and other platforms that have *secure user privacy without censorship* as their value proposition. They use a privacy technology called "end-to-end encryption" that the government cannot easily hack.

The Globalists and the government's objectives cannot tolerate a free speech platform like Musk's X or the application of end-to-end encryption in other services. We can expect to see no-holds-barred attacks on both. We must give moral, verbal, and financial support to those entrepreneurs fighting the battle for free speech.

Stop Central Bank Digital Currency (CBDCs)

If our society collapses into totalitarianism, the ruling class will use the latest technology to control the rest of us.

The money we accumulate is the product of our thinking and effort. A fundamental individual right is to keep what we produce and save it or trade it with others as we see fit, in private if we wish. This right is facing an imminent technological threat from the government.

When the Globalists and government leaders created the Federal Reserve in 1913 and removed the dollar from the gold standard in 1933, it gave them the power to extract the wealth created by America's citizens via inflation of the fiat dollar. Over 95% of the wealth created by American citizens—the purchasing power of their money—has been stolen since this mechanism was implemented. Something that cost $10 in 1913 costs $300 today.[46]

The government's next planned big move, as soon as they think they can get away with it, is to implement a mechanism, not to extract wealth from the citizens, but to *control* it. They plan to replace the present fiat dollar with a government-sanctioned central bank digital currency (CBDC). (Bitcoin is a private-sector digital currency the government does not control.)

The government will introduce CBDCs gradually and then force us to use them instead of today's dollar. This will give the government visibility of what we do with our money and control over what we are *allowed* to do with it. This would be the final mechanism for establishing absolute control over our lives, a totalitarian regime.

We must educate ourselves about the extreme threat to our freedom of private action that CBDCs (or whatever name the government uses instead) and the equally dangerous government "digital IDs" represent and help raise the alarm and prevent them.

The private sector can provide digital currencies and digital IDs with public and private features. We must raise the alarm to prevent the government from taking control of private-sector cryptocurrencies such as Bitcoin and apps that use end-to-end encryption. We will need them in our technological free market future.

By enforcing the Constitution's enumerated powers limitations, we can begin dismantling the government's existing theft mechanisms, such as the Federal Reserve.

As long as we still have the Constitution, Free Speech, and Private Money, there is hope that the Modern Era will continue.

CHAPTER 13

HAPPINESS SKILLS

CRITICAL PROCESS #6- Explains how our conceptual thinking shapes our psychology and happiness. Answers: *How do I achieve and sustain happiness?*

Finally, what can we do to achieve happiness, our highest moral purpose, regardless of what happens in society?

Our Context

Exploring our past, we learned that we came to exist as a result of the process of biological evolution, that our robust ability to grasp and modify reality elevates us above all other living things on Earth, that "reason" is our tool of knowledge and means of survival; that societies of individuals that have predominantly rational ideas advance while others decline; that we are ascending an exponential technology growth curve via the *Technology Cycle* and future evolution will be technological rather than biological; and that because of widespread abandonment of reality, reason, and individualism in the *Ivory Tower Cycle*, our free society could collapse. We have explored what will be required *philosophically* for our society to survive long-term.

But we do not want to limit our thinking to only the avoidance of disaster. Our highest value is the achievement of our happiness, no matter what is happening in the world around us. How do we bring all this down to the personal *psychological* level? What can we learn about how a rational individual achieves happiness?

The Achievement of Values

Happiness results from using *our* reason to choose and then achieve *our* values. Notice that the prior sentence is a *first-person* statement— "I" choose my values and then "I" achieve them. No "he/she" makes me happy, nor "they" make me happy. No one else is responsible or able to make "me" happy. Happiness is an achievement, and "I" must achieve it myself.

We already know that, as rational animals, happiness requires that our worldview be based on reality, reason, and individualism. Ideas summarized in the above *Rational Conceptual Framework* table comprise our Personal Philosophy and are our highest values.

But there must be more to learn about how we do this on a day-in, day-out basis. If we can learn the habits and skills required to achieve happiness in today's world, then perhaps we will be better able to achieve happiness in our dramatically changed future world. If we are going to live extra-long lives, knowing how to stay happy will be critically important to us.

Our Psychology

What about our *psychology*? Are there psychological traits that lead to happiness? Can these traits be learned as skills? Fortunately, a psychologist has listed the psychological traits and skills that a person with a reality-based Personal Philosophy needs to achieve happiness. Dr. Edith Packer, J.D., Ph.D., delivered the talk "Happiness Skills" at the 1991 Summer Conference of the Jefferson School.[47] The following is a summary of Dr. Packer's guidance regarding Happiness Skills.

Happiness Skills

A skill is an ability to do something well as a result of knowledge and practice. Happiness Skills start with conscious and subconscious *attitudes*, which lead to *mind and character traits* and *habitual ways of acting*. Repeated use of this combination in action over a long period results in happiness skills.

Three Key Attitudes of the Happy Person:

1. **Love of life**
2. **Optimism**
3. **My life is important**

Key Attitude #1: Love of Life

A basic subconscious love for life— "I am passionate about being alive. What I value most, above all, is life."

Key Attitude #2: Optimism

An aura of subconscious optimism— "So long as I am alive, there is always something of value to enjoy."

Key Attitude #3: My Life Is Important

A subconscious attitude that not just life but he and his life are important— "I will guide my life based on my own judgment of facts and not on the views of others." This includes the recognition that the primary consideration must be what *he* desires. He recognizes that others, like himself, have a right to pursue what *they* desire. Being rational, he does not expect to clash with other people. This is called *rational egoism*.

Key Skill #1: Responsibility for Own Happiness

He takes responsibility for asking and answering, for himself, questions such as:

1. "What plans do I have to make for the future to be happy in the long run?"
2. "What kind of work will I enjoy?"
3. "What is it that I have to do now and every day that will make me enjoy life in the present?"
4. "What do I have to do to be happy?"

He knows he cannot control what happens to him by chance or because of other people's irrational actions.

Key Skill #2: Commitment to Effort

The happy person recognizes that he must expend effort to pursue what is important to him. His repeated successful application of effort in thinking and action results in the discovery that exerting effort is essential to enjoyment. Expending effort to acquire new knowledge brings a sense of enjoyment because he experiences knowledge as the key to achieving values.

Key Skill #3: Commitment to Action

A happy person is subconsciously and consciously committed to action. Once he identifies a value he desires, its achievement becomes his goal, and he immediately focuses on the action necessary to achieve it. He scrutinizes his everyday activities, explicitly questioning whether they move him closer to his goal or take him farther away.

Key Skill #4: Commitment to Health and Learning

The happy person is committed to the health and well-being of both body and mind. He stays fit, participates in physical activities such as sports, and does not use narcotics or become intoxicated. He continuously struggles to acquire new knowledge both inside and outside his field.

Key Skill #5: Controlled Emotions

The happy person does not permit himself to be stopped by negative emotions, especially fear. He does not deny having them. He does not assign an important role to them. Unrealistic fear does not stop him from acting. Fear is an emotion and is always the result of a thought that anticipates danger. He knows that the solution to fear is to be fact-oriented, i.e., to determine whether the fear is realistic or not. He can overcome unrealistic fear by thinking, effort, learning, and action.

He does not start an activity by anticipating failure. He deals with failure when it happens by figuring out what he did wrong and focusing on correcting his mistakes.

Key Skill #6: Commitment to Facts

The happy person values facts above emotions. He can recognize essential facts of each concrete situation without regard to his wishes, hopes, and fears. He can distinguish between facts of reality that humans cannot change and facts that are man-made, the result of human choice.

The most fundamental of all happiness skills is the ability to separate one's wishes and fears from facts and conduct one's life based on facts.

Outcomes of Fact Orientation

- Permits a person to pursue goals based on a realistic appraisal of himself and the possibility of success.
- Justice (virtue): He deals with and judges others based on essential facts of their expressed ideas and actions.
- Honesty (virtue): He does not fake facts.
- Integrity (virtue): He is not afraid to act on his principles and based on facts.

Key Skill #7: Value Orientation

A "value" is that which one acts to gain or keep. A "virtue" is the action required to achieve a value. Life without values has no direction or meaning. Values provide the individual with purpose, goals, excitement, and focus on what he loves (passion). The happy person accepts responsibility for choosing his values rather than living according to other people's values. The happy person knows what values he wants to achieve in all important areas of his life.

Major Values Examined

The five major areas where one chooses values on which happiness depends are:

1. Productive Work (Career)
2. Romantic Love and Sex
3. Friendships
4. Recreation (Leisure)
5. Art

Productive Work: A happy person loves his work with passion. To be in control of his life, the happy person has a productive central purpose that establishes the relative importance of all his other values. It saves him from pointless inner conflict. It is not the degree of a man's ability that is ethically relevant but the whole, purposeful use of his ability. A career requires the ability

to sustain a purpose over a long period through many separate steps, choices, and decisions, adding up to a steady progression toward a goal.

Romantic Love and Sex: To love is to value. A man who does not value himself cannot value anything or anyone. Only a rationally selfish man of self-esteem can love—because he is the only man capable of holding firm, consistent, uncompromising, un-betrayed values. Love is a person's response to his own highest values in the person of another—an integrated response of mind and body, of love and sexual desire. Sex is one of the most important aspects of a person's life and, therefore, must never be approached lightly or casually. A sexual relationship is proper only based on the highest values one can find in a human being.

Friendships: The happy person knows his life can be enhanced by sharing it with people he likes. He develops friendships on different levels, from sharing one value, such as sports, to all-encompassing soul-mate friendships.

Recreation (Leisure): The happy person knows how to relax and enjoys various optional values in his leisure time. He knows that happiness is not experienced only in "big bangs" such as getting married or gaining a promotion, but every day in "small bangs" in the details of daily life: preferences such as where to walk, what to eat, clothes to wear, etc.

Art: Art causes a person to feel an emotion that, if put into words, would say: "This is what life means to me." Our conscious thinking programs our subconscious. Art enables us to experience our conceptual values emotionally, resupplying the emotional fuel we need to move forward. We instantly feel appreciation or revulsion toward art according to our value judgments. Our conceptual intelligence is increasing over time; therefore, so is our emotional intelligence. We will undertake new art forms and levels of appreciation for them. Art's value to us will increase.

Major Virtues

A **virtue** is an action by which one achieves a value:

1. The virtue of **independence** is the acceptance that you must live your life according to your thinking and judgment, not the thinking of others.
2. The virtue of **honesty** is the recognition that you cannot fake existence. It means to live by and practice any idea you accept as true.
3. The virtue of **integrity** is the recognition that you cannot fake your consciousness, that you are made of a body and mind, and that there is no breach between them.
4. The virtue of **justice** is recognizing that you cannot fake others' character and must judge others for what they are by a rational process of identification and then treat them accordingly.
5. The virtue of **productiveness** is the recognition that productive work is the process by which your mind sustains your life, the power to adjust your environment to yourself.
6. The virtue of **pride** is the recognition that you are your own highest value, and like all your values, it must be earned. It is the achievement of the creation of your character and self-esteem.

Irrationality, condescension, paternalism, and collectivism prevent individuals from being independent and virtuous, destroying happiness.

Key Skill #8: Commitment to Self-Change

The happy person is committed to being aware of and changing the possible negatives in his life. He pays special attention to his psychology. He tries to be aware of his thoughts, emotions, and motivation. The happy person judges himself, his qualities, and his attributes, not based on what he wants them to be but on what they are. If he finds some negative in himself or his functioning, he does not lament it but changes it to the best of his ability.

Fact orientation makes the happy person willing to change his goals if necessary. Reason and reality require that we adjust to the facts about ourselves and pursue only what, with hard work, is possible for us.

The happy person does all this because he is proud of his character and accomplishments. He wants to be free of pain and suffering to enjoy his values.

Key Skill #9: Perspective

The happy person can keep in mind all the relevant facts and not make judgments based on relatively minor, arbitrarily selected, isolated facts. The happy person evaluates positive and negative everyday occurrences from the point of view of how they affect his values. He knows that life's circumstances can create problems, but he usually considers them minor annoyances, not major tragedies. Keeping perspective gives the happy person emotional stability because he does not make mountains out of molehills.

Key Skill #10: Long-Range Planning

The happy person is committed to planning his future in all major respects. He plans financially (as far as he can), including children's education, illness, and unemployment. He plans intellectually, including new skills connected with work and subjects or activities that otherwise interest him. He enjoys planning for the future enjoyment of optional values. He enjoys anticipation and preparation for a future value (milking a value).

The happy person knows he must forsake short-range gratification that would be at the expense of long-range values. He never sacrifices a higher value for a lower one or non-value. He achieves pride and avoids regret.

Happiness Skills Summary

Happiness is an *achievement,* and it is in your control. It is not something that happens to you; it is something you must bring about. Happiness skills are developed by building the thought habits described in your brain’s neural pathways. You strengthen them over time by consciously focusing on them repeatedly.

It would be helpful to keep the following list where we can refer to it often, developing the happiness habit.

HAPPINESS CHECKLIST:

1. Make up your mind to be happy.
2. Assume responsibility for achieving your values.
3. Become clear on what values you need and want in life.
4. Identify what attitudes and habitual ways of acting stand in your way.
5. Commit yourself to change whatever is in your way.
6. Set goals consistent with your values.
7. Commit yourself to act toward the achievement of your goals.
8. Do not let fear (of change, failure, etc.) stop you.
9. Do not be afraid to take risks.
10. Motivate yourself in every possible way. (Imagine, when you are old, the pleasures/regrets you will feel for values gained/missed.)
11. Be positive, giving more weight to positives and dismissing negatives.

Greatness

Many people are stuck in a lifestyle short of the heroic vision they had for themselves when they were children. No one facing a life span radically extended by technology should want to live that way. If *pride* and *happiness* result from achieving one's rationally chosen values, then what is *greatness*? How do we regain and then achieve the heroic vision we once had for ourselves?

Another psychology professional has articulated the answer to this question. Psychotherapist Dr. Michael J. Hurd, Ph.D., in his 2002 book *Grow Up America! Learning to Live the Happy, Responsible Life* explains:[48]

> We all probably have some measure of greatness within us, at least potentially. But greatness is not what we are trained to think it is. Our greatness lies not in our capacity to write a check to a charity organization or to build houses for poor people. Our greatness lies in

> our individual willingness to create, to produce, and to use our minds. To selfishly—yes, *selfishly*—develop our interests and talents to their fullest potential represents the true measure of our worth.
>
> An act of greatness consists of a businessperson working long hours to make his company number one. An act of greatness consists of an engineer struggling to determine how to construct the Golden Gate Bridge or its equivalent. An act of greatness consists of a dancer or a musician or an artist working doggedly to bring absolute excellence, even perfection, to her craft. In selfishly developing our talents and pursuing our dreams and values, plenty of other people benefit—especially if we succeed.
>
> In contemporary society we have lost sight of—or, more accurately, never truly grasped—the authentic meaning of greatness. Increasingly, we pay cynical lip service to the politically correct/religiously correct view that the essence of greatness lies in helping an old lady across the street.[…] Like it or not: there's nothing so compassionate as the cold hand of science, reason and objective knowledge.[…] Science and business do more to help that old lady across the street than any self-anointed (or popularly elected) do-gooder ever could. Yet science and business continue to be despised by many of our cultural elites—and ignored or simply taken for granted by the masses. […]
>
> We stubbornly persist in the belief that greatness lies in *giving up* one's self rather than developing one's self with heroic and precise dedication. The core and essence of self, after all, is the mind. And it is through the benefits of the human mind that all progress, great and small, occurs. It is through ideas that human beings master their environments and conquer the universe.
>
> The dominant view today, tragically, is precisely the opposite.

Ultimately, you maximize your happiness and achieve greatness by applying reason in choosing your values according to facts of reality, choosing your goals, identifying the actions required to achieve them, and then acting—

developing yourself "with heroic and precise dedication." Pride in the person you have become is your reward, and others benefit.

Spirituality

The most fundamental thinking we need to do is examine and, if necessary, reset our view of *spirituality* and the alternative of life and death. To embrace our heroic vision and continue humanity's evolution toward a technological future in the stars, we must replace the *mystical* spirituality passed down to us from primitive humans and internalized in our subconscious long ago with a modern *objective* spirituality based on reality and the nature of man.

The first of two crucial aspects of spirituality is the common attribution of the "good" within us to our "soul." The philosopher Ayn Rand, who was the first to explain how our human consciousness uses concepts to grasp reality, formulated a description of what we mean by the idea of a "soul" that is consistent with reality and the nature of man:

> Pride is the recognition of the fact that you are your own highest value and, like all of man's values, it has to be earned—that of any achievements open to you, the one that makes all others possible is the creation of your own character—that your character, your actions, your desires, your emotions are the products of the premises held by your mind—that as man must produce the physical values he needs to sustain his life, so he must acquire the values of character that make his life worth sustaining—that as man is a being of self-made wealth, so he is a being of self-made soul—that to live requires a sense of self-value, but man, who has no automatic values, has no automatic sense of self-esteem and must earn it by shaping his soul in the image of his moral ideal, in the image of Man, the rational being he is born able to create, but must create by choice—that the first precondition of self-esteem is that radiant selfishness of soul which desires the best in all things, in values of matter and spirit, a soul that seeks above all else to achieve its own moral perfection, valuing nothing higher than itself—and that the proof of an achieved self-esteem is your soul's shudder of contempt and rebellion against the role of a sacrificial animal, against the vile impertinence of any creed that proposes to immolate the irreplaceable

> value which is your consciousness and the incomparable glory which is your existence to the blind evasions and the stagnant decay of others.[49]

The second crucial aspect of spirituality is what is meant by "meeting our maker?" Soon, most humans will live to be centenarians. We might even be on the threshold of halting the aging process and living for centuries. Evolving to become first hybrid and then virtual humans is how we will use knowledge of the Laws of Nature, not mystical fantasy, to defeat death. I think futurist and Google's head of engineering Ray Kurzweil's personal view will serve us well:[50]

> Evolution can then be viewed as a spiritual process in that it creates spiritual beings, that is, entities that are conscious. Evolution also moves toward greater complexity, greater knowledge, greater intelligence, greater beauty, greater creativity, and the ability to express more transcendent emotions, such as love. These are all descriptions that people have used for the concept of God.
>
> I'm not planning to die, I expect to use the power of ideas. I am a survivor as an entrepreneur and a human being. It's my plan to be involved in this next phase of humanity where we get past some of the frailties of these Version 1.0 bodies we have. The way to 'meet our maker,' so to speak, is, in fact, by staying alive. We will be part of this very rapid explosion of intelligence, and beauty, and a very rapid acceleration of this evolutionary process. And that, to me, is what God is. Evolution, I think, is a spiritual process because it moves closer to what we have considered God. It moves closer to infinity.[51]

Closing Advice

> If you think that each human can achieve greatness in a knowable reality, that our evolutionary purpose is to awaken the universe, that the Starship we need to transport us to the stars is a society that supports our physical nature—one that promotes reality, reason, and individualism, and that the technology will follow, then my advice is…

Be "spiritual" by appreciating that the universe, through exquisite but unconscious Laws of Nature and biological evolution over millennia, created the fantastic, incredible, unique consciousness that is "you." Do what you need to stay healthy and expect a long life with multiple careers. Commit to a reality-focused thinking habit, placing facts and reason above emotions. Work on eliminating from your subconscious invalid ideas you got from others. Identify your values hierarchy with your life and happiness at the top and your productive work at the center. Embrace disruptive change as the new normal while holding onto familiar things you value. Monitor the advancement of transcendent technologies, watching for opportunities. Engage with the latest technology that helps you achieve your values, continually maintaining your cognitive connection to reality. Differentiate between technologies that enhance your agency and self-reliance and those that diminish it. Take positive action, educating and encouraging those closest to you and in society regarding the benefits of reason and individualism.

Above all, enjoy being alive in this wondrous Transcendence Era of exponentially advancing technology. Appreciate the beauty nature will reveal along this fascinating, wild, evolutionary ride toward increased Intellopy in the universe. The achievement of <u>your</u> heroic vision will repay the universe for your life by contributing to <u>its</u> cosmic awakening.

★★★

ENDNOTES

[1] **Kelly, JJ (2021).** ***INTELLOPY: Survival and Happiness in a Collapsing Society with Advancing Technology*****.** Green Cove Springs, FL: Future Coach LLC. Contains the full presentation of the *Six Critical Processes* and *Eight Transcendent Technologies*. Available on Amazon. Learn more at **www.INTELLOPY.com**

[2] **Modern History Project**. An online database of the key personalities, organizations, events, and belief systems that shape our modern world. Its goal is to present factual history instead of the revisionist content found on Wikipedia.org. https://modernhistoryproject.org/mhp?Article=FedReserve&C=5.0

[3] INTELLOPY Ch 2.4 The Great Unraveling. I examine the impact of social media in detail and the principled approach to understanding the difference between freedom of information rights and individual rights.

[4] INTELLOPY Resources, Errors in Our Society > *Error of Greed*. I describe the businessman's "single-minded pursuit of a rational self-interest."

[5] INTELLOPY Ch 3.3 Technology > *Roles*. I provide a principled description of the requirements for technology's creation. It describes in more detail the roles and relationships of scientists, engineers, business professionals, investors and financiers, employees, consumers, free market and government, and education.

[6] https://modernhistoryproject.org/mhp?Article=FedReserve&C=5.0#Seven

[7] For example, Tycoon and One World Order functionary George Soros said, "I fancied myself as some kind of god … but I feel comfortable about it now since I began to live it out." He funded the election of district attorneys across America who refused to enforce laws. https://www.latimes.com/archives/la-xpm-2004-oct-04-oe-ehrenfeld4-story.html

[8] Wolchover, N. A New Physics Theory of Life. *Quanta*, January 22, 2014. [Self-replication (or reproduction, in biological terms), the process that drives the evolution of life on Earth, is one such mechanism by which a system might dissipate an increasing amount of energy over time. As England put it, "A great way of dissipating more is to make more copies of yourself."] https://www.quantamagazine.org/a-new-thermodynamics-theory-of-the-origin-of-life-20140122/

[9] Elhacham, E., Ben-Uri, L., Grozovski, J. *et al.* Global human-made mass exceeds all living biomass. *Nature* 588, 442–444 (2020). https://doi.org/10.1038/s41586-020-3010-5

[10] INTELLOPY Ch 3.2 The Law of Intellopy. I describe the types of consciousness: vegetative, perceptual, and conceptual, and the types of goal-directed action, vegetative and purposeful. See **Binswanger, Harry (1976).** ***The Biological Basis of Teleological Concepts*****.** Los Angeles, CA: The Ayn Rand Institute Press, and **Binswanger, Harry**

(2014). ***How We Know. Epistemology on an Objectivist Foundation.*** New York, NY: TOF Publications.

[11] "**Intellopy**" is a word I created because one did not exist for this concept. The existing terms "causal entropic forcing" and "anthropomorphic matter" came close but didn't take into account the actions of non-conscious entities, nor the ultimate consequence in the universe. INTELLOPY Ch 3.2 The Law of Intellopy.

[12] INTELLOPY Ch 3.1 Evolution > *Entropy*. I provide a more thorough explanation of entropy with examples.

[13] **Dodge, Norman. (2007).** ***The brain that changes itself.*** New York, NY: Penguin Books.

[14] Dodge, Norman. (2007).

[15] INTELLOPY Resources > *Theory of Mind*. This is a thought exercise in which I became convinced that is possible for the hierarchical pattern-matching machinery of the brain to cause the emergence of human consciousness.

[16] **Contera, Sonia. (2019).** ***Nano Comes To Life. How Nanotechnology Is Transforming Medicine and the Future of Biology.*** Princeton, NJ: Princeton University Press.

[17] **Kurzweil, Ray. (2012).** ***How To Create A Mind: The Secret Of Human Thought Revealed.*** New York, NY: Penguin Books. p.82

[18] Binswanger, Harry (1976), and Binswanger, Harry (2014).

[19] **www.AynRand.org** and **Peikoff, Leonard. (1991).** ***Objectivism: The Philosophy of Ayn Rand.*** New York, NY: Penguin Group. The philosopher Ayn Rand was the first to identify the "unit reduction" theory of concepts. It explains how our abstract concepts grasp reality. Because Rand showed that the ideas taught in the universities have no basis in reality, her ideas have understandably been ignored or ridiculed by the professors.

[20] Studies first done on crows and later humans have shown that we, like crows, can only focus our mind on about five things at a time (plus or minus). This is called the "Crow Epistemology" limit.

[21] **Mayer, Emeran. (2016).** ***The Mind-Gut Connection. How the Hidden Conversation Within Our Bodies Impacts Our Mood, Our Choices, and Our Overall Health.*** New York, NY: HarperCollins Publishers Inc. A thorough explanation of our conscious and subconscious interactions involving our entire body including our microbiome.

[22] Dodge, N. (2007) p.279

[23] **www.AynRand.org** and **Peikoff, Leonard. (1991).** ***Objectivism: The Philosophy of Ayn Rand.*** New York, NY: Penguin Group. The philosopher Ayn Rand was also the first to describe our volition as the choice to focus our rational faculty to choose behaviors or unfocus it and let our subconscious guide us.

[24] INTELLOPY Ch 3.1 Evolution > *Technology Cycle.* A more thorough explanation of the *Technology Cycle* is provided.

[25] INTELLOPY Ch 2.1 Warning! Sharp Curve Ahead. People might know what an exponential formula is, but most do not fully grasp its radical nature. I provide a story to help the reader grasp the radicalness emotionally.

[26] Folger, T. Will We Continue to Get Smarter? The Flynn Effect Says Yes. *Scientific American*, September 1, 2012. https://www.scientificamerican.com/article/will-we-keep-getting-smarter-flynn-effect-says-yes/

[27] **Drexler, K. (2013).** ***Radical Abundance. How a Revolution In Nanotechnology Will Change Civilization*****.** New York, NY: Public Affairs. In addition to explaining nanotechnology, Drexler provides an excellent description of the differences in the roles of scientists and engineers.

[28] **Brook, Yaron. & Watkins, Don. (2017).** ***In Pursuit of Wealth. The Moral Case For Finance*****.** Irvine, CA: Ayn Rand Institute Press. An excellent presentation on the morality of money and finance.

[29] INTELLOPY Part 4 Anticipating Our Future. Each transcendent technology is covered in-depth in its own chapter.

[30] **Binswanger, Harry (2014).** ***How We Know. Epistemology on an Objectivist Foundation*****.** New York, NY: TOF Publications. In this book, Binswanger provides an excellent description of the natures of various levels of consciousness. I highly recommend both of his books, especially for anyone working in the AI field.

[31] INTELLOPY Resources > *Errors in Our Society*. I provide the descriptions of thirteen critical errors, not just the three provided in this book.

[32] **Laughlin, Burgess. (1995).** ***The Aristotle Adventure. A Guide to the Greek, Arabic, and Latin Scholars Who Transmitted Aristotle's Logic to the Renaissance*****.** Flagstaff, AZ: Albert Hale Publishing. An excellent detailed history of the flow and impact of Aristotle's ideas in the various periods and geographic regions is provided.

[33] **Peikoff, Leonard. (2012).** ***The DIM Hypothesis: Why The Lights Of The West Are Going Out.*** New York, NY: Penguin Group. Presents an analysis of measurable characteristics of past societies that led to their rise or fall and how that compares to society today.

[34] INTELLOPY Ch 4.2 Genetics and Ch 4.3 Nanotechnology. The transcendence of intentional technological evolution over random natural selection is described.

[35] Peikoff, Leonard. (2012).

[36] INTELLOPY Ch 3.1 Evolution. Describes volition, focus, knowledge, and certainty.

[37] Peikoff, Leonard. (2012).

[38] **Crawford, Matthew. (2020).** ***Why We Drive. Toward a Philosophy of the Open Road.*** New York, NY: HarperCollins Publishers Inc.

[39] INTELLOPY Ch 2.5 The Great Unraveling. I also describe the Great Divide, The Man-In-The-Middle surveillance attack, and the Loss of Sovereignty.

[40] Sotala, K. Defining Human Values for Value Learners. *AAAI Technical Report WS-16-02*, (2016). Download the paper from the Association for the Advancement of Artificial Intelligence at https://aaai.org/papers/aaaiw-ws0217-16-12633/ or web search the paper's title.

[41] INTELLOPY Ch 4.6 Artificial Intelligence (AI) and Ch 4.7 Augmented Human Intelligence (AHI). I extensively cover the promise, ethics, development, and control of AI, and how we will use it to augment our own intelligence.

[42] These are the essentials of the philosophy consistent with our rational nature as described by Ayn Rand, the twentieth-century philosopher who first explained how our rational faculty connects abstract concepts to reality. She called her philosophy "Objectivism." Learn more at **www.AynRand.org**.

[43] Drexler, K. (2013).

[44] INTELLOPY Part 5 Making Plans. I additionally describe the activism needed in education, corporations, and government and by AI professionals and professional philosophers.

[45] The source of this quotation is a journal kept by James McHenry (1753-1816) while he was a Maryland delegate to the Constitutional Convention. On the page where McHenry records the events of the last day of the convention, September 18, 1787, he wrote: "A lady asked Dr. Franklin Well Doctor what have we got a republic or a monarchy – A republic replied the Doctor if you can keep it."

[46] https://inflationdata.com/articles/2022/08/10/u-s-cumulative-inflation-since-1913/

[47] **Packer, E. (1991).** ***Happiness Skills*****.** "The Intellectual Activist," March & May 1993.

[48] **Hurd, Michael. (2000).** ***Grow Up America! Learning to Live the Happy, Responsible Life*****.** Washington, DC: Living Resources Press. This is an excellent resource for understanding our psychology.

[49] **Rand, Ayn (1961).** ***For the New Intellectual: The Philosophy of Ayn Rand*****.** Penguin Random House. p.130

[50] **Kurzweil, Ray. (2005).** ***The Singularity Is Near. When Humans Transcend Biology.*** New York, NY: Penguin Books. Kurzweil popularized the idea of a technological singularity, the point when AI becomes more intelligent than all humans. In INTELLOPY, I extensively address the possibility of an AI singularity and its potential consequences.

[51] **Garreau, J. (2005).** ***Radical Evolution. The Promise and Peril of Enhancing Our Minds, Our Bodies—and What It Means to Be Human*****.** New York, NY: Broadway Books. Garreau quotes Ray Kurzweil.