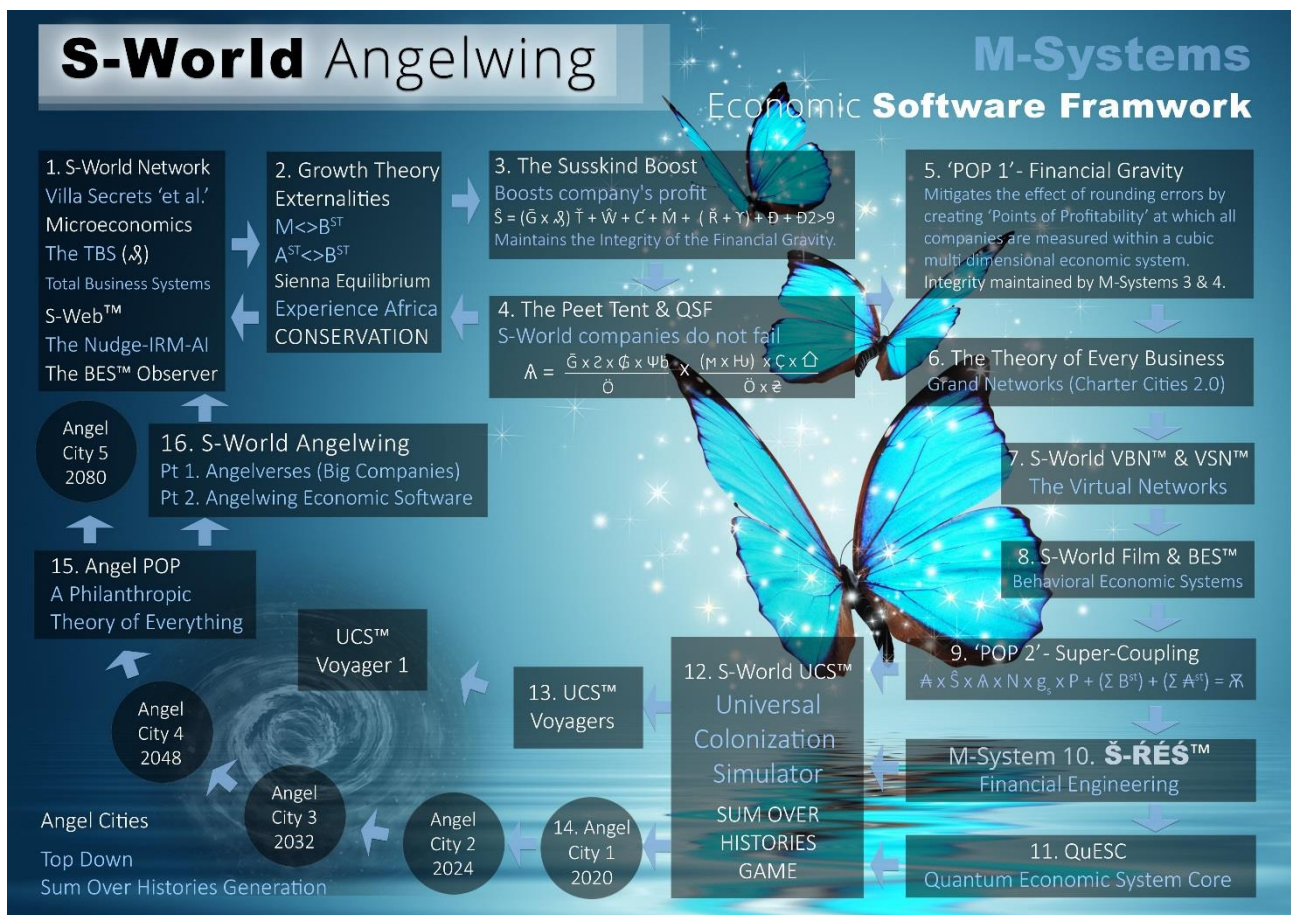# Supereconomics III & IV

Sixty-Four Reasons Why + Zero To One
+ Stephen Hawking - The Grand Design

10x Our Future

Taking Malawi from **Zero to One** percent of GDP
For Peter Thiel
And Paul Romer, William Nordhaus and Leonard Stiglitz

V2.0 – 28th April 2020

A Work in Progres

64 Reasons Why (Book 3)
10x our Future

Taking Malawi from **Zero to One** percent of GDP by 2080
(0.003%) to One (1.073%)
www.Supereconomics.ai

Elevator Pitch part 1

Most people think philanthropy, charity and aid are best for the poorest global citizens, but the truth is monopoly can be better. To be specific, the S-World monopoly system as described in the 5,759 pages of S-World Stories.

This leads us to a second important truth; most experts in monopoly do their best to hide and invent stories of competition, whereas the S-World monopoly, can hide in plain sight, and boast about its monopoly rents because they fund the 64 Special Projects (See the original 64 Reasons Why, and 64 Reasons Why – Summary)

64 Reasons Why (Book 3)
10x our Future

Taking Malawi from **Zero to One** percent of GDP by 2080
(0.003%) to One (1.073%)
www.Supereconomics.ai

Elevator Pitch Part 2

Powered by the network monopoly rents created by the Š-ŔÉŚ equation, the S-World monopoly can deliver a 10x future.

And in particular, for the poorest 100 nations, and because of this quality, this monopoly will not have to hide, it's a digital monopoly and it's the best future we can possibly hope to dream of.

And those who oppose monopoly must back down, and if that means rewriting economics, then so be it, **let us call it Supereconomics.**

64 Reasons Why (Book 3)
10x our Future

Taking Malawi from **Zero to One** percent of GDP by 2080
(0.003%) to One (1.073%)
www.Supereconomics.ai

Addendum to the Elevator Pitch

"By "monopoly," we mean the kind of company that's so good at what it does that no other firm can offer a close substitute."
(From Zero to One)

Š-ŔÉŚ™ the Monopoly equation can increase the money supply by more than 3300%, allowing for a potential 33x future, it was created and still is for Malawi and another 100 poor counties. Their future can be radically improved, see the book '64 Reasons Why – Summary'

The biggest four ripple effects in the West are lower global population growth, radically lower economic immigration, lower chances of pandemics, and the elephant in the room; the current low percentage of carbon output, not increasing to Western levels.

And you know, I thought that was enough.

But now the world's economy has just fallen off a major cliff, recovery is not guaranteed, and governments are spending all their austerity savings or borrowing money that can not easily be payback. So I am now theorizing S-World in the West; the US, the UK, Greece, Spain, Italy, Norway, Ukraine, and others.

If the Angelwing systems can shape Malawi's future by two orders of GDP magnitude by 2080, what else can the system and the Š-ŔÉŚ™ monopoly equation accomplish in lands with the infrastructure is there to start with?

FROM ZERO TO ONE

"My own answer to the contrarian question is that most people think the future of the world will be defined by globalization, but the truth is that technology matters more.

Without technological change, if China doubles its energy production over the next two decades, it will also double its air pollution. If every one of India's hundreds of millions of households were to live the way Americans already do—using only today's tools—the result would be environmentally catastrophic. Spreading old ways to create wealth around the world will result in devastation, not riches. In a world of scarce resources, globalization without new technology is unsustainable."

And;

"Simply stated, the value of a business today is the sum of all the money it will make in the future. (To properly value a business, you also have to discount those future cash flows to their present worth, since a given amount of money today is worth more than the same amount in the future.)"

10x Our Future

Important to know, for the most part;

If the type is in a serif font, it's a quote

If the type is in a non-serif font it's from Nick Ray Ball

Part 1 of this book (Chapters 1 to 6) has been created by copying and pasting earlier works, and in particular from the original 64 Reasons Why book. For now, I have left the raw sections as they were originally written. Thus Part 1 is not a fluid read at this time, to address this I have created the following Part 1 Summary, and I shall do the same for Part 2 'Grand Śpin Networks' so the reader can read the introduction then the summaries of parts 1 and 2 for a good general overview of the project within an hour.

ONE PLANET, ONE NETWORK
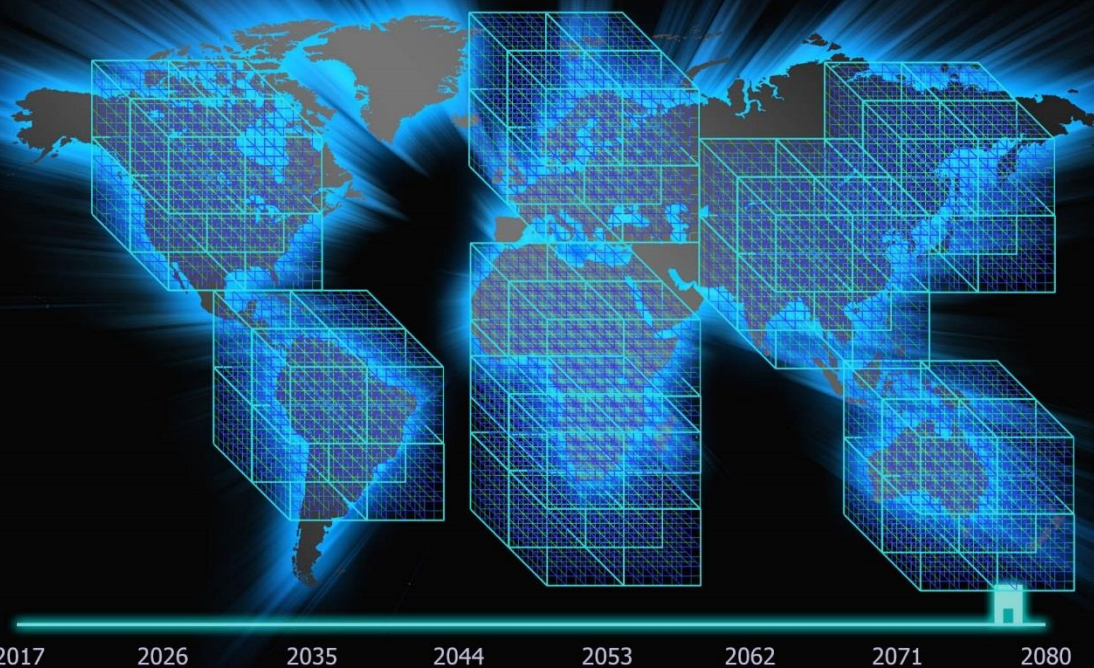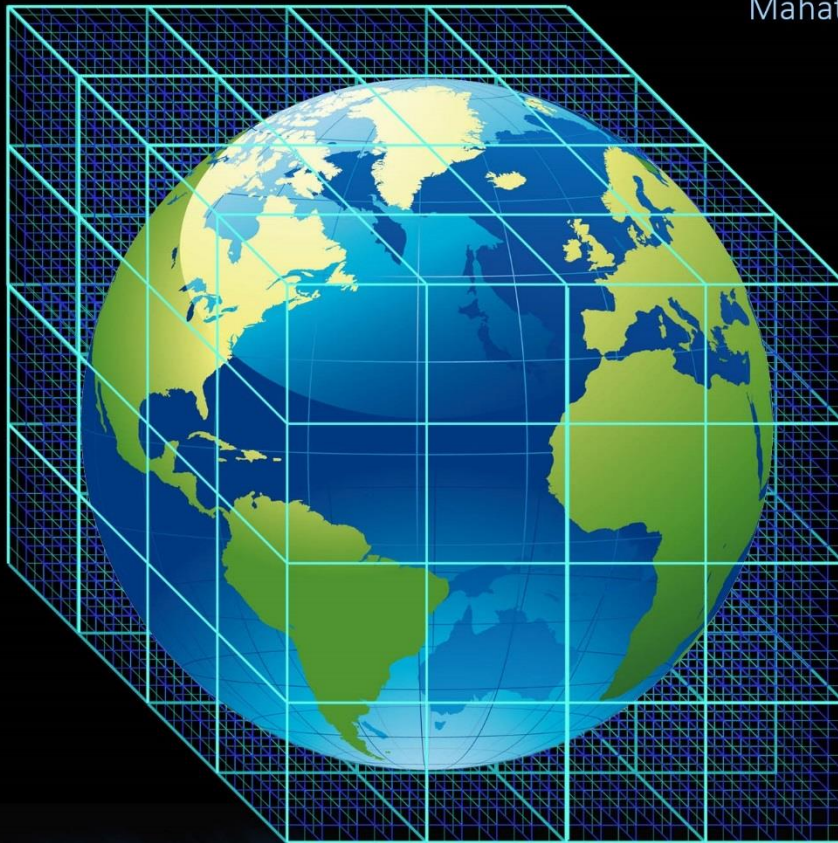
"Be the change you want to see in the world."

Mahatma Gandhi

64 Reasons Why (Book 3)
10x our Future

Taking Malawi from **Zero to One** percent of GDP by 2080

(0.003%) to One (1.073%)

www.Supereconomics.ai

This version of Supereconomics – 64 Reasons Why has seen the book rewritten around the book 'Zero to One' by Peter Thiel with Blake Masters, due to Thiel's mastery and championing of monopoly, the critical ingredient in our most powerful Supereconomics equation; Š-ŔÉŚ™ (Šavings + Ŕevenue x recycle Éfficacy x Śpin)

Welcome to S-World

The S-World hypothesis started in Feb 2011 by considering that in the future most trade will be facilitated by a few Grand Networks, like GDSs - Global Distribution Systems such as Amadeus and Galileo (20 years ago) but in place of travel, the databases would be for everything you could wish to buy, accounting for most of global GDP.

10 years of work,
(*www.Supereconomics.ai* 2020, *www.AngelTheory.org* 2016
www.AmericanButterfly.org and *www.S-World.biz* 2011), **and now S-World is a plan for such a technology, it is a plan for The Global Distribution System.**

This would not be a good thing if not for the complex set of rules that guide the network to a much better future than we currently expect. S-World is a time machine, its mission is to make the world a better place, in 5 phases – 2020, 2024, 2032, 2048 and 2080. I call these phases Angel Cities 1, 2, 3, 4 & 5.

Before this book, came 64 Reasons Why, which presents 64+ projects that most people and governments would wish for their children and children's children, in the future. See https://www.angeltheory.org/64-Reasons-Why--Summary.pdf

This book, 10x Our Future looks at the monopoly system Š-ŔÉŚ™ Financial Engineering which is quite simple and then explores the systems that surround it and facilitate it including Net-Zero DCA (Dynamic Comparative Advantage), which sees more than half of all the money (cash flow) in the participating economies directed to one or another of the special projects.

Welcome to S-World – Welcome to your future, your 10x future. (well actually 33x)

When you are making plans for a network that can be one of a few facilitators of global trade, one needs to work in economics, both macro and micro and have a clear path between the two.

The major difference between a business network and an economy like the USA is that in an economy, most of the money stays within the country, exchanged between citizens, government and business. In 2018 the US GDP was 20.54 trillion, up from 19.49 in 2017. Most of the 2018 figure was money that money stayed in the USA, some was spent abroad, some money from abroad was spent in the USA and the USA increases its Output.

A new Global Trade Network does not have the quality of most of its spending ending up roughly where it started (in terms of measuring GDP). To solve this problem Š-ŔÉŚ™ Financial Engineering was created. In essence, it's a monopoly, hence the framing of this book is done from Peter Thiel's book on monopoly 'Zero to One,' and the handy catchphrase; "Taking Malawi From Zero to One percent of GDP"

Part 1
Š-ŔÉŚ™ Financial Engineering

Index

Part 2

10x Our Future

Chapter 3

Shaping The Future

CHAPTER 4

Alternate Histories

CHAPTER 5

The Sienna Equilibrium

Chapter 6

87 Quintillion Histories

Chapter 7

S-World Net-Zero DCA Soft.

Chapter 8

QuESC

PART 3
Grand Śpin Networks

CHAPTER 9
Monopolies and Secrets

CHAPTER 10
The Suburb Sale | Grand Śpin Networks

Chapter 11

Start-Ups and Distribution

Chapter 12

Seeing Green & Special Projects

Chapter 13

Net Zero Dynamic Compartive Advatage

PQS > Predictive Quantum Software

- S-World.Biz
- S-World VSN
- S-World.TV
- Resort Networks
- S-World Sports & Arts
- S-World Commerce
- S-World Education
- Special Projects
- Sienna.Gov

Business Book Concepts & Software Elements

BBS 2048
BBS 2032
BBS 2024
BBS 2020

BB

Finite Math Engine

MCQPS
Monte Carlo Quantum Probability Software

UCS Voyager 1

VSN Voyager

S-World UCS

UCS Voyager 2

PQS Voyager 2080

S-World UCS Registry / Database

Collective Thinking

Butterfly Receiver

Complexity

Infinity

Width

Innovation

Intelligence

Entropy

Height

Depth

Butterfly Creator

QuESC

Free Thinking

2010   2020   2030   2040   2050   2060   2070   2080

ONE PLANET, ONE NETWORK

"Be the change you want to see in the world."

Mahatma Gandhi
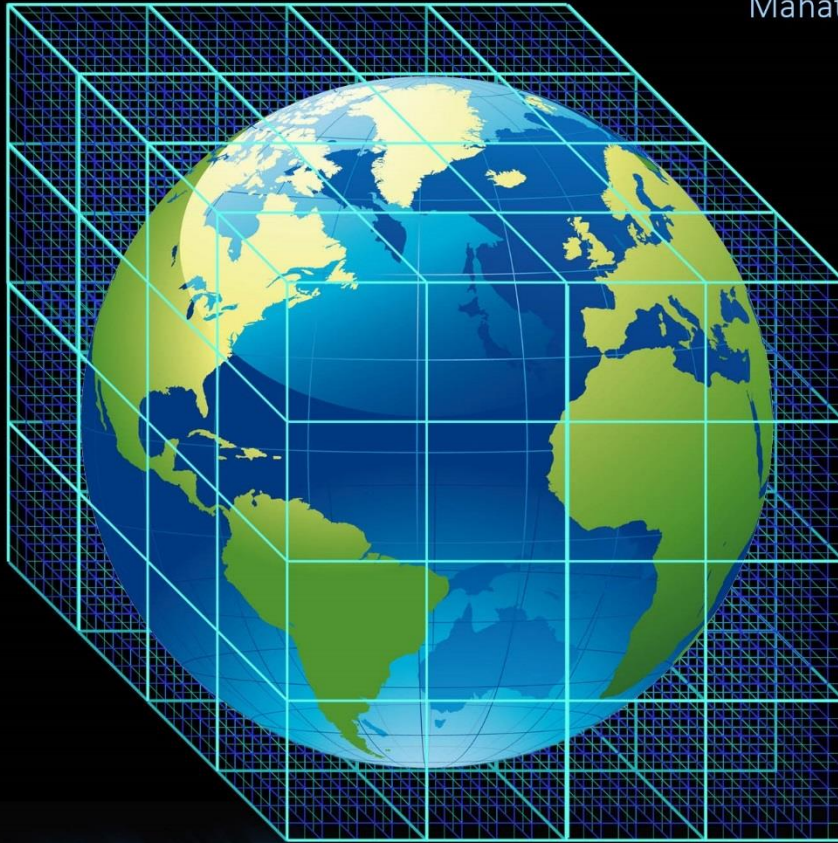
2017　2026　2035　2044　2053　2062　2071　2080

INTRODUCTION

Proprietary Economics

33x Our Future

Zero to One

by Peter Thiel with Blake Masters
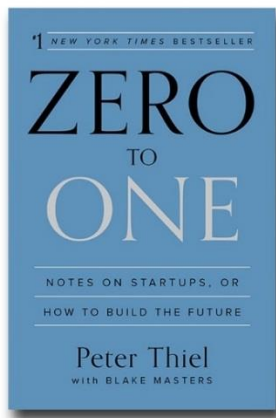
Preface: ZERO TO ONE

1. Every moment in business happens only once. The next Bill Gates will not build an operating system. The next Larry Page or Sergey Brin won't make a search engine. And the next Mark Zuckerberg won't create a social network. If you are copying these guys, you aren't learning from them.

    Of course, it's easier to copy a model than to make something new. Doing what we already know how to do takes the world from 1 to n, adding more of something familiar. But every time we create something new, we go from 0 to 1. The act of creation is singular, as is the moment of creation, and the result is something fresh and strange.

    Unless they invest in the difficult task of creating new things, American companies will fail in the future no matter how big their profits remain today. What happens when we've gained everything to be had from fine-tuning the old lines of business that we've inherited? Unlikely as it sounds, the answer threatens to be far worse than the crisis of 2008. Today's "best practices" lead to dead ends; **the best paths are new and untried.**

In a world of gigantic administrative bureaucracies both public and private, searching for a new path might seem like hoping for a miracle. Actually, if American business is going to succeed, **we are going to need hundreds, or even thousands, of miracles.** This would be depressing but for one crucial fact:

Humans are distinguished from other species by our ability to work miracles. **We call these miracles technology.**

From **Zero to One** by **Peter Thiel** with Blake Masters

Introduction to S-World technology:

Welcome to the S-World Network and the combinatorial explosion that is S-World Angelwing, the catch-all name for all S-World Technology.

Below we see the system graphic that has been central since 2016.

S-World AngelWing
Economic Software Framework
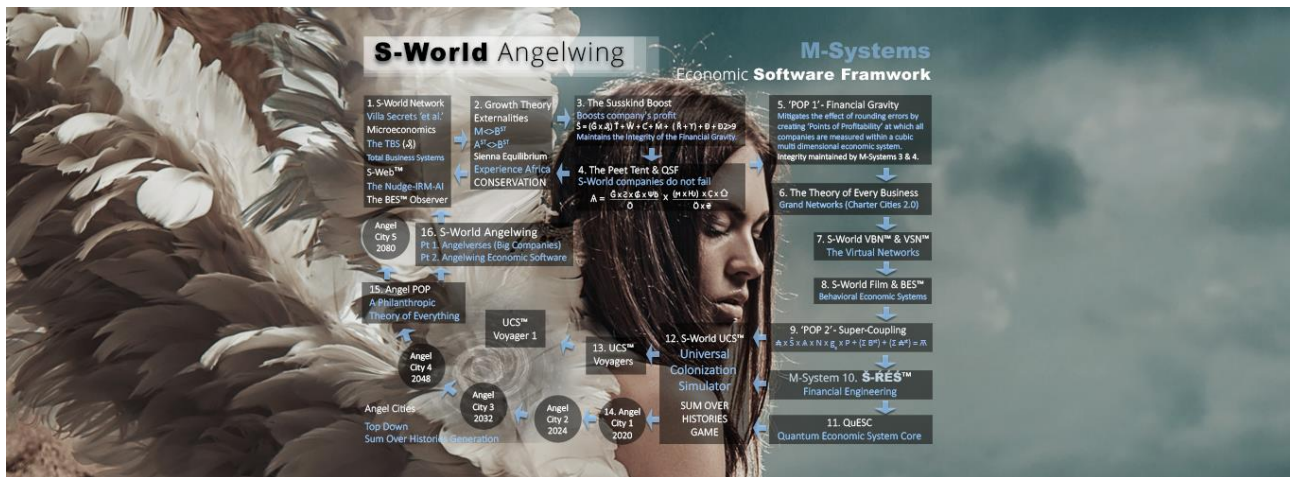
S-World Angelwing is the catch-all name for the S-World software systems and software designs including; The TBS™ (Total Business Systems), S-World CRM CC (Company Controller), UCS Hawthorne and CC OKRs, S-Web™ online systems, S-World BES™ (Behavioural Economic Systems), S-World Film™, S-World TMS™ (Total Marketing System), S-World TFS™ (Total Financial Systems), S-World VSN™ (Virtual Social Network) and VBN™ (Virtual Business Network), S-World UCS™ Universal Colonization Simulator, S-World AE (Aid Efficiency), Š-ŔÉŚ™ Financial Engineering, S-World Net-Zero DCA™ (Net-Zero - Dynamic Comparative Advantage), S-World PQS™ (Predictive Quantum Software), and The Theory of Every Business.

And the 17 following M-Systems:

M-System Zero. The GGW String, 1. S-World Network and the TBS™ (microeconomics), 2. Ripple Effects, 3. The Susskind Boost, 4. The Peet Tent, 5. POP (Financial Gravity and Equality), 6. The Theory of Every Business, 7. S-World VSN™, 8. S-World Film, 9. Super Coupling (Scale), **10. Š-ŔÉŚ™**, 11. QuESC, 12. S-World UCS™, 13. UCS™ Voyagers, 14. Angel Cities & Special Projects, 15. Angel POP (Equality^2), and 16. S-World Angelwing.
www.angeltheory.org/book1/m-systems-and-special-projects
Now, let us zoom in a little and note the circular flow; we shall explain the equations a little later.

Since studying Zero to One, I have broken all the Angelwing technology into 8 separate projects. Each project has the power to 10x, and some like project 7. Š-ŔÉŚ™ Financial Engineering can increase the money supply by more than 3,300%, (more than 33x), and that 33x is spread relatively evenly between many thousands of business types and niches, each an S-World monopoly, each benefiting from the Š-ŔÉŚ monopoly rents.

S-World ANGELWING
The 7 Technologies & S-World Film
The ingredients for S-World Angelwing and the combinatorial explosion

1. **S-Web™**
   Web site development, software integration, Supplier APIs, Webhooks
   www.CapeVillas.com | www.ExperienceAfrica.com | www.CapeLuxuryVillas.com.
   Future Markets; Universities and authors, Prize winners, everyone, Villa Secrets
   California, Facebook Business, LinkedIn, Twitter Business.

2. **TBS™ - Total Business Systems**
   TFS™ (Total Financial Systems) TMS™ – Total Marketing Systems (including Prestige
   Marketing) Super Coupling (Distribution method) S-World CC – The Company
   Controller, CC-OKRs, CC-Other, The Susskind Boost, The Peet Tent, POP (Financial
   Gravity) Baby POP, Angel POP, Special Projects and Grand Śpin Networks)

3. **S-World Villa Secrets**
   The Villa Secrets Secret (Training and implementation manual 1), Villa Secrets
   Specialize and scale (Training and implementation manual 2) Experience Africa, top-
   top-end Real Estate and Travel, Plus 64 niche business types.

4. **S-World Film** – Film Production Company, celebrities assisting the Net Zero quality
   of S-World; Madonna (Because of Malawi) Leonardo De Caprio and others. The
   Famous Concierge, Behavioural Economic Systems, PR, Branding, Advertising,
   Media, Marketing, Villa Secrets and funded by every S-World Monopoly.

5. **S-World VSN™ – Virtual Social Network;** S-World Virtual World, S-World Oasis, 10x
   versus MLS, combines SimCity, The SIMS and Stefan Antoni to display real estate and
   suburbs for sale. S-World VBN (Virtual Business Networks Google My Business,
   Facebook Business, Twitter Business, and the 100x S-World DreamState VSN.

6. **S-Word UCS™**
   S-World UCS – Universal Colonization Simulator, Angel Cities, UCS Voyages Training
   Systems, Recruitment Games, MMO games and gaming in general, Work with
   Civilization, The SIMS, SimCity, Football Manager and other games

7. **Š-ŔÉŚ™ Financial Engineering** - Aid Efficiency, Sienna Equilibrium, 87 Quintillion
   Histories, Grand Śpin Networks, Special Projects 33x

8. **Net-Zero DCA™ Soft.** Net Zero Dynamic Comparative Advantage allocates as much
   Cash-flow GDP as possible (between 50% and 80%) to special projects.

Each of the above requires books of detail and individually should be its own VC project that is expected to grow to be worth more than the rest of the fund put together.

However, it is in the combining of all the systems that a **combinatorial explosion** occurs, a concept I first heard about from 2018 Nobel Prize in Economics winner; Paul Romer:

"But there's another concept that I need to flesh out related to ideas, which is what computer scientists refer to as a combinatorial explosion.
If you have a number of elements that you can combine; say you have 10 elements and combine them, we can calculate how many combinations can you make. If you have 20, we can calculate it again. **Combinatorial explosion is a summary of the fact that the number of combinations explodes as you take more and more raw different elements that you can use to combine them.**"

Paul Romer 2018 Nobel Prize Winner

www.youtube.com/watch?v=vZmgZGIZtiM

Each of the seven categories of software plus S-World Film is a raw element, and as we combine them the number of ways/opportunities to make money, save money or avoid landmines increases exponentially. How much money is always a good question, in this case, with these systems, it's a lot, in fact, it's a lot more than anyone reading this book, and particularly the VCs and billionaires will have ever thought possible. Because between 2024 and 2080, we are taking Malawi, the world's poorest country (by GDP per capita) from **Zero to One** percent of GDP (0.003%) to One (1.073%), which when discounted to today's money generates 24 trillion US dollars.

What follows is called a History, a path to a desired outcome in 2080. It is inspired by quantum mechanics, and in particular, the Feynman Sum Over Histories, as presented in The Grand Design by Stephen Hawking and Leonard Mlodinow. Whilst the official History count is 3, I did make several prototypes, and have calculated similar results from completely different simulations. So, eliminating math typo errors in the spreadsheets problem, which would be where most auditors would look for a mistake; Bad math!!! But the math is good, as are the economics, of which there 24,995 pages of 'S-World Stories' (2011 to 2020) to peruse,

We shall start this journey with Š-ŔÉŚ™ and a way to increase the money supply by 3300%. Originally created in 2012 in the American Butterfly trilogy; www.AmericanButterfly.org. Unknown to me then Š-ŔÉŚ™ was a monopoly equation, however, soon after realizing in mid-2019 I started reading about monopoly and on 27th March 2020 eventually, I found what I was looking for and wanted in Peter Theil's book **Zero to One.**

And so, to Š-ŔÉŚ™ Financial Engineering to justify and demonstrate how we take Malawi from **Zero to One**.

Š-ŔÉŚ™ Financial Engineering

Pecunia, si uti scis, ancilla est; si nescis, domina.

Staring on the next page we see four illustrations describing Š-ŔÉŚ™
The power comes from the monopoly effect **É,** where if **É** = 100% the network of businesses is exclusively buying and selling within the network.
And we can use combinations of **É** and **Ś**pin to increase the cash flow.

VIDEOS

History 3

34 **E) Š ŔÉŚ™ Supereconomics & The Special Project Allocations**
www.supereconomics.ai/video/34e (35 minutes) (8th March 2020)

34 **D) Supereconomics & The Special Project Allocations – Longer**
www.supereconomics.ai/video/34d (55 minutes) (8th March 2020)

34 **G) Š ŔÉŚ™ Supereconomics - 64 Reasons Why – Accounting Proofs - In 20 Minutes**
www.supereconomics.ai/video/34g (20 minutes) (11th March 2020)

Video 34b | Video 34 | Video 34c | Video 34d | Video 34e | Video 34f | Video 34g

History 2

In history 2, trade is included, and there are 16 City developments.
One percent of GDP is reached 30 years earlier in 2050.
This full-on history battles 15 years of recessions and great depressions and each year increases cash flow
25) RES v4.14 - Manual Display - Ad Libbed
www.supereconomics.ai/video/25 (27 minutes) (27th December 2018)

Š-RÉŚ Financial Engineering v6

DONELLA MEADOWS EFFICIENT BATHTUB IN DYNAMIC EQUILIBRIUM

Ŕ
Inflow Rate
+8 Gallons

90% of Water Recycled
+ 72 Gallons

Stock = 80 Gallons

É
90%
Recycle
Efficiency

Outflow Rate
-80 Gallons

Lost Water | 8 Gallons
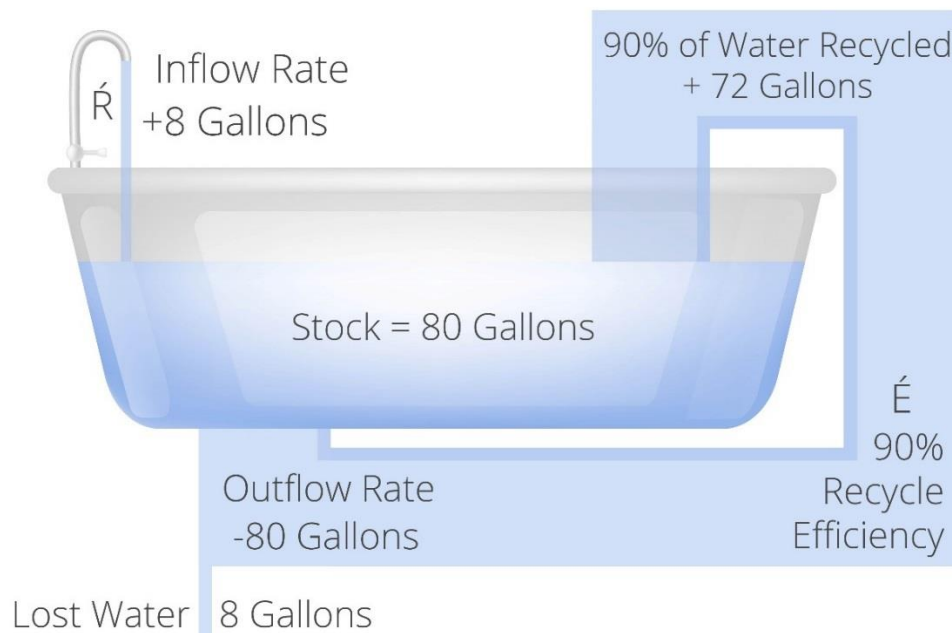
1. **Ŕ is for Ŕevenue –** How much new money is added to the system. It is a combination of investment, sales, exports, and aid that the Network City receives within a year.
2. **É is for recycle-Éfficiency –** In this case, É = 90%, so 90% of the money that would have escaped down the drain is captured, conserved, and returned to the network.
3. **Ś is for Śpin –** The number of times the system completely recycles.
   In the illustration above, we see this only once, so Śpin is one – written as Ś1.
4. **Š is for Šavings –** The amount of cash flow left after the last Śpin in a year, which carries over as revenue that we call Šavings the following year.

$Š_{2023} + Ŕ_{2024}$ = $8 billion

(Šavings + Ŕevenue)

1 of Many Business Networks
Labour, and Tax Symmetry

N1

Ĉ = Ĉash Flow
Equals $15.2 billion

Ś1
Śpin=1

É90%
Recycle
Éfficiency

$(Š + Ŕ) \times É\ 90\% = \$7.2b = Š_{2024}$

10% of Š + Ŕ is lost to spillage
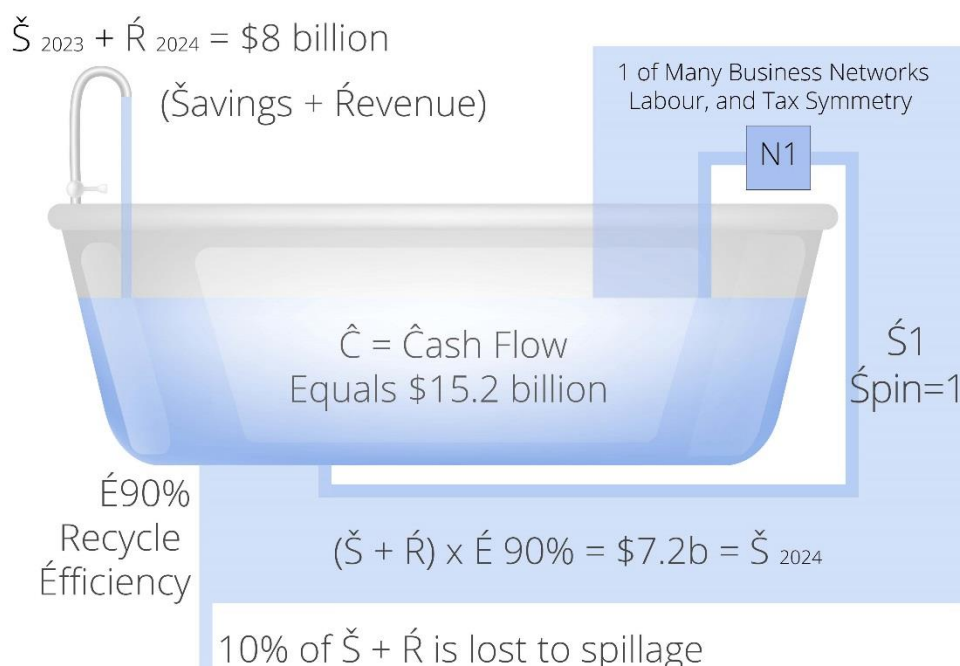
The Ś in Š-ŔÉŚ™ Financial Engineering

Š is for Śpin The number of times the system completely recycles. In the last illustration, we see this only once, so Śpin is one (Ś1). In the illustrations below, we see Śpin 2 and Śpin 3.

The trick is to apply Śpin, so the network spends all its cash flow more than once a year.

Staring with $8 billion in Š+Ŕ (savings and revenue) and a recycle-Éfficiency of 90% each company spends 90% of its cash flow on labour, parts, goods and services from other companies in the network, evenly spread so, at the end, all the companies in the network have received roughly 90% of the cash flow they started with.
   Critically this happens in the first seven months (Jan to July). Then in August 2025 we apply Śpin and spend the recycled $7.2 billion. Thus, the cash flow for the network in 2025 increased from $8 billion to $15.2 billion USD.
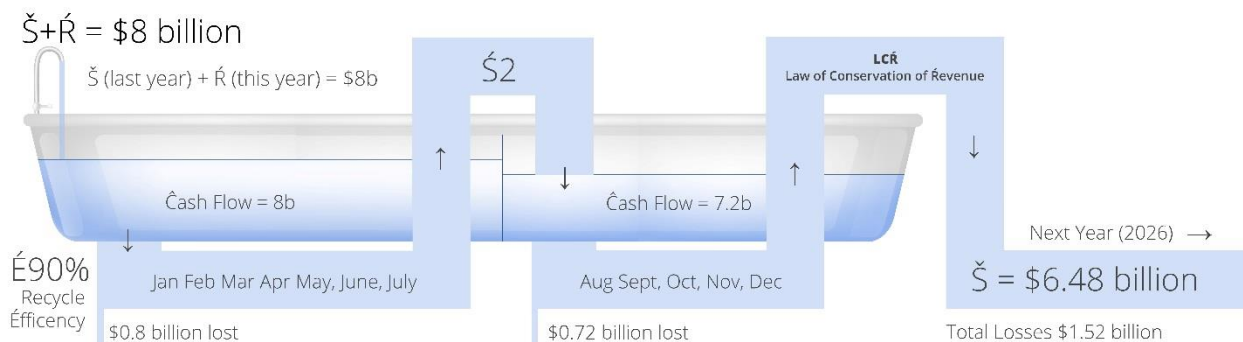
lastly comes the Šavings, which sees $6.48 billion left in the network (in cash USD) carried over to 2026 and the next graphic.

In 2026 by shortening the time before the first Śpin from seven months to five and shortening the time of the second Śpin to four months, then adding a 3rd Śpin from October to December. By the end of the year, we increase cash flow in 2026 to $21.68 billion. Plus $5.832 in Šavings carries to 2027
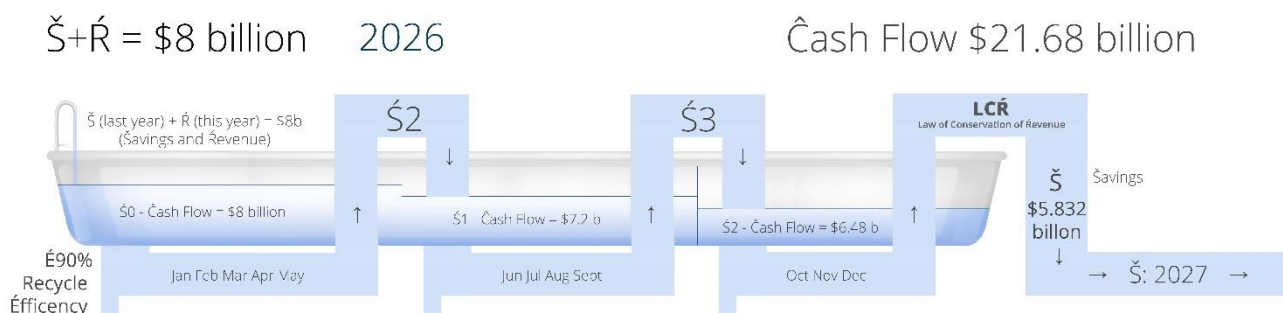
Below we start looking at the S-World Spreadsheet: S-World Supereconomics - Š-ŔÉŚ and Net Zero DCA Soft. (29th April 2020) - 8.01 and tab: H3) ŠÉŚ-v5 | S-World History 3b

The best way to evaluate the spreadsheet is to watch the video

34 **G) Š ŔÉŚ™ Supereconomics - 64 Reasons Why - Proofs - In 20 Minutes**
www.angeltheory.org/video/34g (20 minutes) (11th March 2020)

34 **F) Š ŔÉŚ™ Supereconomics - 64 Reasons Why - Proofs – Longer**
www.angeltheory.org/video/34f (50 minutes) (11th March 2020)

At the end of each year, total network cash flow is measured and we see the total each year below, in 2024 $5.6 billion, in 2043, $550 billion, in 2062, $3.4 trillion and by 2080 $8.2 trillion.

Š-ŔÉŚ™					
History 3b					
Cash Flow					
2024	$ 5,685,975,000	2043	$ 550,714,971,856	2062	$ 3,376,984,627,114
2025	$ 14,894,843,486	2044	$ 589,005,884,788	2063	$ 3,552,322,716,992
2026	$ 26,848,936,252	2045	$ 626,776,157,817	2064	$ 3,735,466,074,599
2027	$ 40,971,349,217	2046	$ 664,266,326,401	2065	$ 3,926,947,476,099
2028	$ 53,185,830,818	2047	$ 701,751,588,557	2066	$ 4,127,305,216,341
2029	$ 63,141,839,466	2048	$ 867,395,313,639	2067	$ 4,337,086,514,746
2030	$ 71,509,098,453	2049	$ 1,075,319,548,307	2068	$ 4,556,850,627,653
2031	$ 79,448,245,354	2050	$ 1,283,942,425,681	2069	$ 4,787,171,721,158
2032	$ 106,194,771,025	2051	$ 1,492,617,377,974	2070	$ 5,028,641,551,041
2033	$ 142,028,749,241	2052	$ 1,700,924,978,432	2071	$ 5,281,871,990,009
2034	$ 180,559,704,269	2053	$ 1,908,662,235,155	2072	$ 5,547,497,437,108
2035	$ 221,041,648,096	2054	$ 2,115,827,746,778	2073	$ 5,826,177,139,597
2036	$ 262,772,540,960	2055	$ 2,322,603,780,468	2074	$ 6,118,597,453,737
2037	$ 305,124,961,846	2056	$ 2,458,677,324,414	2075	$ 6,425,474,067,699
2038	$ 347,569,259,536	2057	$ 2,598,598,977,445	2076	$ 6,747,554,207,063
2039	$ 389,688,563,209	2058	$ 2,742,999,154,713	2077	$ 7,085,618,841,083
2040	$ 431,185,712,853	2059	$ 2,892,474,879,905	2078	$ 7,440,484,905,993
2041	$ 471,882,760,113	2060	$ 3,047,597,735,540	2079	$ 7,813,007,560,030
2042	$ 511,714,147,224	2061	$ 3,208,920,785,137	2080	$ 8,204,082,483,521
		% of Global GDP:	2080		1.07%
		Social houses built:	Villas:		10,118,720

This takes Malawi from 0.0030% of global GDP to 1.0730% of GDP by 2080 and the building of over 10 million quality homes by 2080. (Tab: H3) ŠÉŚ-v5 Cash Flow & Housing). (Or if the CCV is not needed 20 million homes.)

From this base, the POP Law (see 64 Reasons Why book 1 chapter 18) increases the number of companies from 2048 in 2024 to 327,680 in 2080. We don't see it, but on average, each company has 32 personnel for a total of 65,546 personnel earning $21,690 in 2024 who pay 25% of their remuneration towards Paid**2**Learn welfare, where 262,233 people benefit from $1,356 each year, which does not sound like much. But the World Bank says that in 2018 the average Malawian made only $250 a year, so $1,356 is substantial.

Š-ŔÉŚ™	Financial Engineering						
	Network Credits Ťender	Network Credits Ťender	Network Credits Ťender	Adjusted for Growth	Adjusted for Growth	Div. By	Adjusted for Growth
	Cash Flow	Number of Companies	# of Spartan Contract Labour	Spartan Labour Basic + Bonus1	# of Paid 2 Learn Trainees	Trainees Per 1 Labour	Paid 2 Learn Trainees Basic + Bonus1
2024	$ 5,685,975,000	2,048	65,536	$ 21,690	262,144	4	$ 1,356
2025	$ 14,894,843,486	5,120	163,840	$ 22,173	573,440	3.5	$ 1,584
2028	$ 53,185,830,818	15,565	498,074	$ 24,185	1,494,221	3	$ 2,015
2032	$ 106,194,771,025	24,576	786,432	$ 27,707	2,359,296	3	$ 2,309
2040	$ 431,185,712,853	94,208	3,014,656	$ 24,087	7,536,640	2.5	$ 2,409
2048	$ 867,395,313,639	131,072	4,194,304	$ 27,207	10,485,760	2.5	$ 2,721
2050	$ 1,283,942,425,681	163,840	5,242,880	$ 32,218	10,485,760	2	$ 4,027
2060	$ 2,892,474,879,905	245,760	7,864,320	$ 37,800	15,728,640	2	$ 4,725
2070	$ 5,028,641,551,041	294,912	9,437,184	$ 42,781	16,515,072	1.75	$ 6,112
2080	$ 8,204,082,483,521	327,680	10,485,760	$ 49,072	15,728,640	1.5	$ 8,179

At the end of the simulation, by the year 2080 (Angel City 5), we see 10,485,760 Spartan Contract personnel earning $49,072 per year (discounted to today's money), and 15,728,640 people on Paid**2**Lean trainee contracts receiving $8,179.

S-World Net-Zero DCA Soft.
Dynamic Comparative Advantage

Whilst all of the S-World Angelwing software adds to what we have seen, one system above all others contributes massively: S-World Net-Zero DCA Software **changed the total network special project gains from 2.5% of cash flow to more than 50% of cash flow.**

So where a $24 trillion Š-ŔÉŚ™ Grand Śpin Network used to charge a 2.5% licence fee and theoretically made about $600 billion for changing the world for the better, adding the S-Word Net-Zero DCA Software radically changed the dynamic to 50% or even 75% of cashflow assigned to the task, raising from $12 and $18 Trillion for bettering the world.

This system also explains why governments from Malawi to Spain, from the US to the UK may welcome an S-World Network opportunity, Monopoly or not! This is detailed later in the book, first some thoughts on how to spend the money on changing the world for the better.

Special Project Allocations (The 64 Reasons Why)

The first summary version of this book can be downloaded here: <u>64 Reasons Why – Summary</u>

In the first edition, we see the original 64 reasons why, as 64 Special Projects in philanthropy, ecology, science, social systems and complexity saving special projects. Below we see the results from History 3, (Š-ŔÉŚ™ Financial Engineering Simulation 3) in which half the cash flow is allocated to the following special projects, most of which become independent businesses.

SP	Reasons Why	Type	#	Allocation
Special Projects SET 1 of 4.				
1	Experience Africa (Conservation)	Company	2	$ 94,863,000,000
2	The Ecological Experience Economy	Law	0	$ -
3	Advancing Human Potential	Education	3	$ 142,294,500,000
4	Cities of Science	Companies	2	$ 94,863,000,000
5	POP – Equality & The Poverty Gap	Law	0	$ -
6	Sienna's Forests	Companies	6	$ 284,589,000,000
7	Global Cooling	Companies	6	$ 284,589,000,000
8	Universal Knowledge	Education	4	$ 189,726,000,000
9	Spartan Contracts – Great Jobs + Skills	Law	0	$ -
10	Universal Healthcare	Companies	8	$ 379,452,000,000
11	African Rain	Companies	4	$ 189,726,000,000
12	Their Oceans	Companies	3	$ 142,294,500,000
13	Female Equality and Family Planning	Organization	4	$ 189,726,000,000
14	The Population Point	Organization	2	$ 94,863,000,000
15	The Spartan Theory – Peace & Protection	Governments	3	$ 142,294,500,000
16	S-World UCS™	Super Project	4	$ 189,726,000,000

SP	Reasons Why	Type	#	Allocation
Special Projects SET 2 of 4				
17	S-World UCS MARS Resort 1	Companies	2	$ 94,863,000,000
18	Tax Symmetry	Idea	0	$ -
19	Š-ŔÉŚ™ - Financial Engineering	Law	0	$ -
20	Net-Zero Five-Star Social Housing	Companies	32	$ 1,517,808,000,000
21	Partnerships (Business)	Companies	1	$ 47,431,500,000
22	The TBS ™ – Total Business Systems	Super Project	4	$ 189,726,000,000
23	Villa Secrets - Micro Network Strategies	Companies	1	$ 47,431,500,000
24	S-World Film	M-System	8	$ 379,452,000,000
25	S-World VSN™ Virtual Education	Super Project	4	$ 189,726,000,000
26	Paid-2-Learn 1	Personnel	16	$ 758,904,000,000
27	S-World UCS™ MMO Education	Super Project	2	$ 94,863,000,000
28	S-World BES™ Behavioural Economics	R&D	2	$ 94,863,000,000
29	S-World Angelwing Software Framework	R&D	2	$ 94,863,000,000
30	The Theory of Every Business	Idea and Laws	0	$ -
31	The M&B String and Internalities	M-System 2	1	$ 47,431,500,000
32	The Malawi Grand Network (Jobs)	Ripple Effects	0	$ -

S-World Net-Zero DCA Soft.

Dynamic Comparative Advantage

Whilst all the S-World Angelwing software is used to make this simulation, one system above all others contributes the following, S-World Net-Zero DCA software changed the total network special project gains from 2.5% of cash flow to more than 50% of cash flow.

SP	Reasons Why	Type	#	Allocation
	Special Projects SET 3 of 4			
33	Growth Theory versus Climate Change	Goal	8	$ 379,452,000,000
34	Net-Zero Industry	Companies	8	$ 379,452,000,000
35	Scarce Resources	Variable of Law	1	$ 47,431,500,000
36	Biodegradable Packaging and Plastics	Companies	3	$ 142,294,500,000
37	Recycling	Companies	3	$ 142,294,500,000
38	Waste Management	Companies	6	$ 284,589,000,000
39	Infrastructure	Companies	16	$ 758,904,000,000
40	Solar Arrays | S-World Power	Companies	8	$ 379,452,000,000
41	Internet	Companies	8	$ 379,452,000,000
42	S-World AE™ – Aid Efficiency	Software / R&D	1	$ 47,431,500,000
43	Welfare for the Villages (Paid2Learn 2)	Companies	8	$ 379,452,000,000
44	S-World Food	Companies	8	$ 379,452,000,000
45	S-World Air	Companies	4	$ 189,726,000,000
46	S-World Water	Companies	8	$ 379,452,000,000
47	Limiting Antibiotics and Pesticides?	Companies	2	$ 94,863,000,000
48	Is it Safe?	Observation	4	$ 189,726,000,000

SP	Reasons Why	Type	#	Allocation
	Special Projects SET 4 of 4			
49	Fort Malawi Garrison (Against Poachers)	Companies	2	$ 94,863,000,000
50	The Rule of Law and Institutions	Organization	2	$ 94,863,000,000
51	Female, Racial, LGBT, and other Equalities	Ideal	2	$ 94,863,000,000
52	Youth Projects	Companies	4	$ 189,726,000,000
53	Football & Sports Leagues (Paid 2 Learn 3)	Companies	6	$ 284,589,000,000
54	Malawi - 2034 FIFA World Cup Bid	Companies	4	$ 189,726,000,000
55	The Arts – Music, Stage, Art, Craft et al.	Companies	4	$ 189,726,000,000
56	Social Maternalism	Companies	1	$ 47,431,500,000
57	Ecole Maternelle (Kindergartens)	Companies	1	$ 47,431,500,000
58	Mental Health & Addiction	Companies	2	$ 94,863,000,000
59	Immigration	Organization	1	$ 47,431,500,000
60	S-World South Africa	New Network	1	$ 47,431,500,000
61	An Amazon™ Grand Network in Brazil?	New Network	1	$ 47,431,500,000
62	Angel Theory	Idea	1	$ 47,431,500,000
63	POP (Financial Gravity & Equality)	Law & M-System	1	$ 47,431,500,000
64	M-Systems (The Theory of Everything)	M-Systems	1	$ 47,431,500,000
	Total Special Project Spending		100%	256	$12,142,464,000,000
	Spent on Ecological Projects		27.0%	69	$ 3,272,773,500,000
	Spent on Education - Paid 2 Learn et al.		40.2%	103	$ 4,885,444,500,000

Below we see more videos

If you do not have it already ask for the spreadsheet nick@VillaSecrets.com
34e is a good start.

History 3

34 **G) Š ŔÉŚ™ Supereconomics - 64 Reasons Why - Proofs - In 20 Minutes**
www.angeltheory.org/video/34g (20 minutes) (11th March 2020)

34 **F) Š ŔÉŚ™ Supereconomics - 64 Reasons Why - Proofs – Longer**
www.angeltheory.org/video/34f (50 minutes) (11th March 2020)

34 **E) Š ŔÉŚ™ Supereconomics & The Special Project Allocations**
www.angeltheory.org/video/34e (35 minutes) (8th March 2020)

34 **D) Supereconomics & The Special Project Allocations – Longer**
www.angeltheory.org/video/34d (55 minutes) (8th March 2020)

34 **B) Š ŔÉŚ™ Supereconomics – Donella Meadows Bathtub in Equilibrium Graphics**
www.angeltheory.org/video/34b (24 minutes) (11th Jan 2020)

34) Š-ŔÉŚ-v5 Financial Engineering Software
www.angeltheory.org/video/34 (35 minutes) (24th March 2019)

History 2

In history 2, trade is included, and there are 16 City developments.
One percent of GDP is reached 30 years earlier in 2050.
This full-on history battles 15 years of recessions and great depressions and each year
increases cash flow
25) RES v4.14 - Manual Display - Ad Libbed
www.angeltheory.org/video/25 (27 minutes) (27th December 2018)

PART 2

10x Our Future

Part 1. Executive Summary

In 2017 a major breakthrough was the simple definition of M-system 15. Angel POP:
"Grand Networks in Countries in Extreme Poverty are Special Projects."
And so, the S-World Grand Network hypothesis refocused on Africa and Malawi the world's poorest country (in GDP per capita). By applying Š-ŔÉŚ™ Financial Engineering and later S-Net-Zero Dynamic Comparative Average.

Add Content...

Zero to One by Peter Thiel

Chapter 3.The Challenge of the Future

1. "What important truth do very few people agree with you on?"

   NRB Answer

   a. **Most people think philanthropy, charity and aid are best for the poorest global citizens, but the truth is monopoly can be better.** To be specific, the S-World monopoly system as described in the 24,550 pages of S-World stories is better. This leads us to a second important truth, which is that most experts in monopoly do their best to hide and invent stories of competition, whereas the S-World monopoly, can hide in plain sight, and boast about its monopoly rents because they fund the 64 Special Projects (The Original 64 Reasons Why.)

      Powered by the network monopoly rents created by the Š-ŔÉŚ™ equation, the S-World monopoly can deliver a 33x future for everyone, and in particular the poorest 100 nations, and because of this quality, this monopoly will not have to hide, it's a digital monopoly and it's the best future we can possibly hope to dream of. And those who oppose monopoly must back down, and if that means rewriting economics, then so be it, **let us call it Supereconomics**, in part in reference to how string theory and supersymmetry helped forge/inspire the original RES equation back in 2012 in the American Butterfly series – book 3 chapter 4.

      The important Supereconomics truth is that the monopoly equation Š-ŔÉŚ™, and the Net-Zero DCA™ Soft, the Dynamic Comparative Advantage software, **can 33x our future, for our children and our children's children,** constructing the future of the third world, and then remaking the first world in beautiful Net-Zero.

      See Video 34 E) Š ŔÉŚ™ Supereconomics & The Special Project Allocations www.angeltheory.org/video/34e (35 minutes) (8th March 2020).

2. "What makes the future distinctive and important isn't that it hasn't happened yet, but rather that it will be a time when the world looks different from today. In this sense, if nothing about our society changes for the next 100 years, then the future is over 100 years away. If things change radically in the next decade, then the future is nearly at hand. No one can predict the future exactly, but we know two things: **it's going to be different, and it must be rooted in today's world."**

<div align="right">From Zero to One by Peter Thiel with Blake Masters</div>

> ### *NRB Reply*
> a. In general, the S-World Network timeline is from now to 2080, but that's not to say it is not going to make much of a difference in the early decades. Within S-World UCS™ we create histories (scenarios between now and 2080). History 2 (see: www.angeltheory.org/video/25) and earlier versions were between now and the mid-century, and predict that Malawi can go from Zero two One percent of global GDP by 2050. It also increased cash flow every year, despite simulating 15 years of recessions. That's the Nobel committee presentation!
> b. Given the economic devastation, the coronavirus is causing, and given that it is expensive to start with a country without infrastructure such as Malawi, it's no longer out of the question that we could use Š-ŔÉŚ™ Financial Engineering in richer countries, and if this is so; those countries will see a radical change from 2020 to 2030 and a paradigm shift between 2030 and 2040.

3. "Escaping competition will give you a monopoly, but even a monopoly is only a great business if it can endure in the future. Most of a tech company's value will come at least 10 to 15 years in the future."

> ### *NRB Reply*
> a. Because of the proprietary economics and specifically Š-ŔÉŚ™, the future will be based on best histories (simulations) we have made. This process will help S-World endure into the future. In history 3, in 10 years The Malawi Grand Śpin Network will be at Śpin 7 and will have cash flow around the $65 billion mark, and by 2035 it will be at Spin 12 generating $197 in cash flow. Which is roughly equal to $100 billion in GDP.
>
> Clearly a long way of one present on global GDP at $80 Trillion, but with about 70% of that cash flow used creating items Malawi's government and citizens would want to give – if only they had more money. Roughly speaking Malawi's effective tax income will increase more than 10 times. **I call this method of taxing Tax Symmetry** and it is essential to the process. Instead of all taxes, at the begging,

when we plan the city around the special projects (Net-Zero Dynamins Comparative Advantage. We see about 70% of all cash flow helping Malawians in one way or another.

To be clear, all equivalent tax payments are paid in Network Credits, and generally, equivalent tax payments are made from output (GDP) made by the Network.

4. **"Long-term planning is often undervalued by our indefinite short-term world."**

   ### *NRB Reply*
   a. To assist with this long term plan we have S-World UCS MMO and other Games, we have S-World Film including S-World BES (behavioural economic systems) and S-World VSN the Virtual World, all bringing the S-World stories long term planning to the masses.

SHAPING If Not Predicting THE FUTURE?

5. **"If you treat the future as something definite, it makes sense to understand it in advance and to work to shape it."**

NRB Reply

In 2011, during a conversation about predicting the future, a wise man introduced me to the following philosophical quote by Isaac Asimov and further suggested looking at string theory.

Isaac Asimov

"You may not predict what an individual may do, but you can put in motion things that will move the masses in a direction that is desired. Thus shaping if not predicting the future."

Shaping if not Predicting the Future.

Isaac Asimov:

"You may not predict what an individual may do, but you can put in motion things that will move the masses in a direction that is desired, thus shaping if not predicting the future."

This philosophy became the S-World Network Mantra and is still at the heart of the system, and once we get past the indifference in the words, it makes a lot of sense. Consider the S-World Network and its component S-World UCS™ **as-if** they were a time machine, created to change the future, between now and 2080, pit stopping in 2024, 2032 and 2048 along the way.

The mechanics are complex but can be simplified down to seven technologies plus S-Word Film, which I collectively call S-World Angelwing.
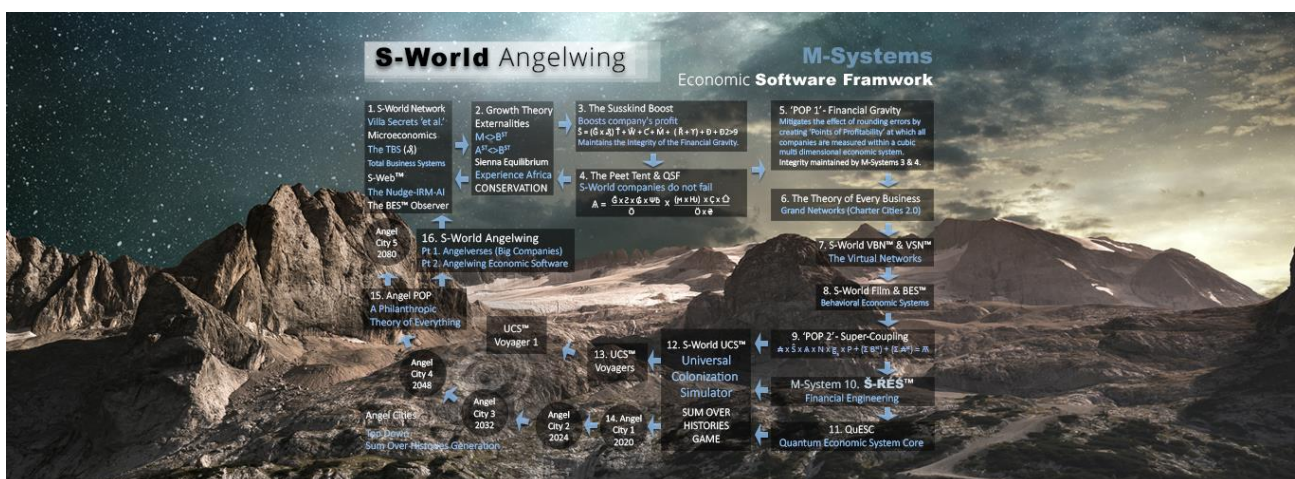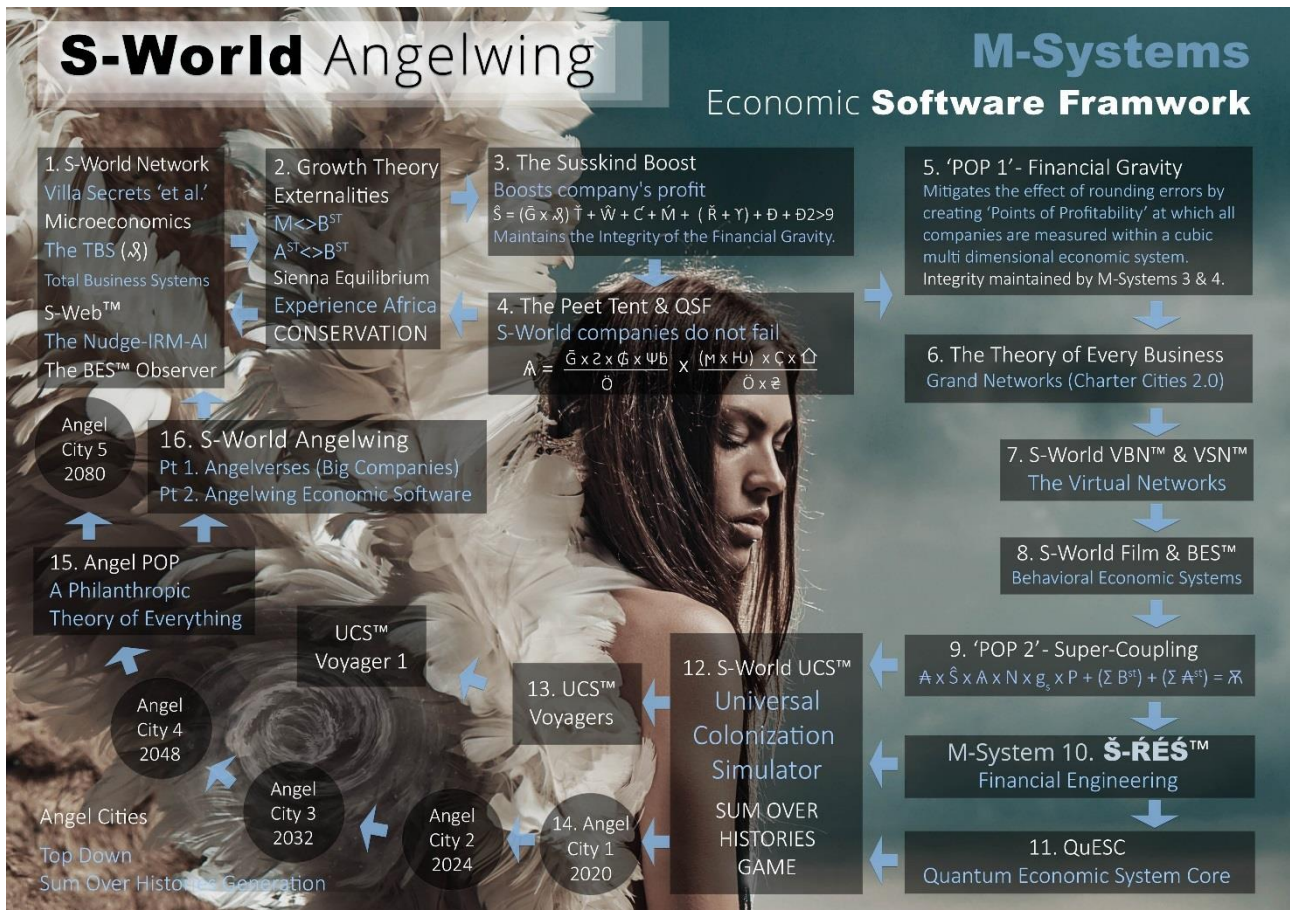
On the 1st August 2017, I created a Movie Trilogy idea, around the systems and this time travel idea, Called Angel City 5.

Angel City 5

see; www.angeltheory.org/angel-city-5-_-1st-aug-2017 It's a pretty good story and is relatively technically accurate on the physics as it takes into consideration that you can never go back in time before the time machine was created, and in the movie, like real-life S-World UCS was

created in mid-2012.
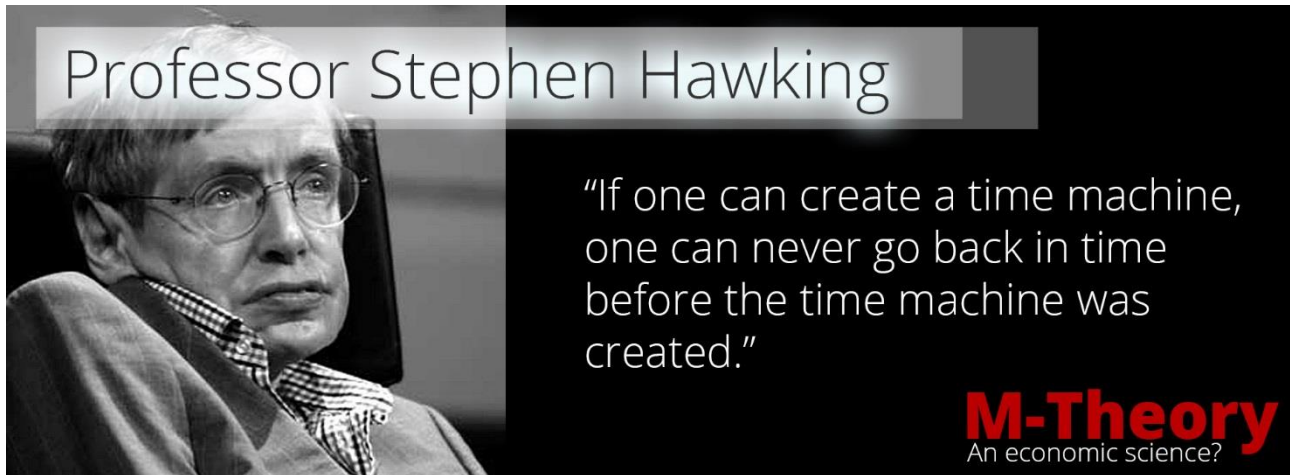
UCS™ is a time machine, just not in the way people traditionally think of time machines, in this case instead of transferring someone between times, we are attempting to change our future, from a dystopia to a future we will be proud to have hand-over to our children's and children's children.

Angel City 5 – Part 1

2020 - Dystopia

ANGEL CITY 5 – PART 2

Shaping if not Predicting the Future
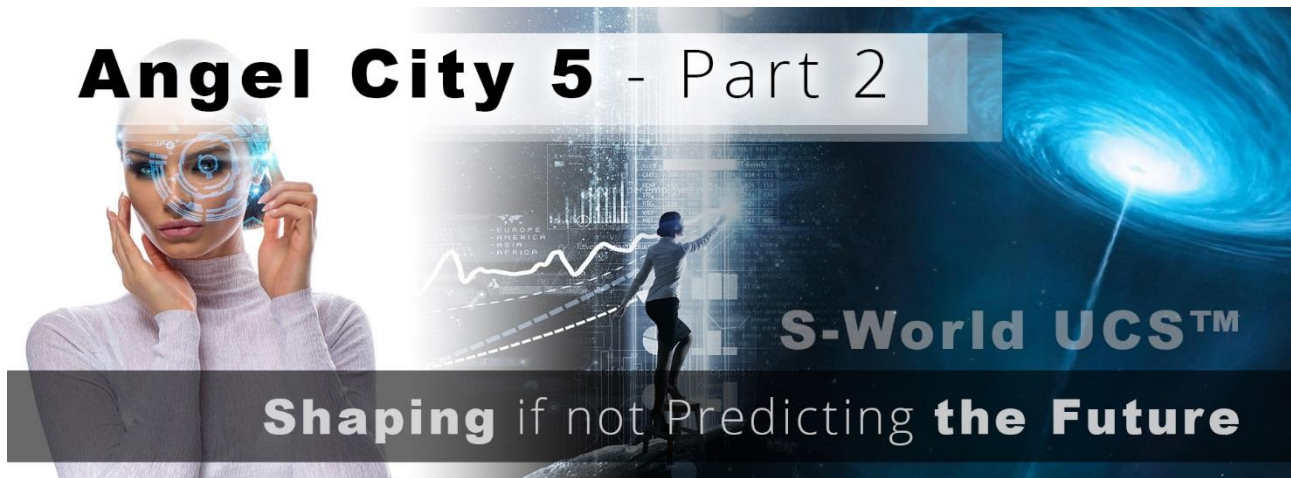
ANGEL CITY 5 – PART 3

Alternate Histories

Returning to Peter Thiel's; Zero to One...

6. "When we think about the future, we hope for a future of progress. That progress can take one of two forms. Horizontal or extensive progress means copying things that work—going from 1 to n. Horizontal progress is easy to imagine because we already know what it looks like. Vertical or intensive progress means doing new things—going from 0 to 1.

   Vertical progress is harder to imagine because it requires doing something nobody else has ever done. If you take one typewriter and build 100, you have made horizontal progress. If you have a typewriter and build a word processor, you have made vertical progress. The single word for vertical, 0 to 1 progress is technology."

7. **"People looked far into the future, saw how much valuable new technology we would need to get there safely, and judged themselves capable of creating it."**

8. "If you think something hard is impossible, you'll never even start trying to achieve it. Belief in secrets is an effective truth. The actual truth is that there are many more secrets left to find, but they will yield only to relentless searchers. There is more to do in science, medicine, engineering, and in technology of all kinds."

9. **"Definite optimism works when you build the future you envision."**

10. "Only in a definite future is money a means to an end, not the end itself."

NRB

Next, we are travelling back in time to the 24th November 2017 and the work I did after a near-death experience, maybe that's why this section has endured, featuring as its own S-World Story (12) and later found in the original 64 Reasons Why.

Chapter 12

The S-World UCS™ M-Systems

From S-World Story 12.

M-Systems and Special Projects

24th November 2017

S-World UCS™ creates many different simulations for each business and becomes the training and recruitment tool for the network. It is intrinsically linked to the TBS™ and is, in fact, the way the stakeholders in a business run their business. And a key ingredient to S-World UCS™ is that it allows all the personnel in a company to make their own simulations, and then the company (as a whole) chooses the best outcomes from all scenarios. It is a very inclusive system.

This story starts at a point when RES was the least detailed M-System, whereas now the three Supereconomics books are all built upon RES in 2019: Š-ŔÉŚ™ Financial Engineering.

So, let's go back to the future, November 24th, 2017 and '**The S-World UCS M-Systems.**'

www.angeltheory.org/the-s-world-ucs-m-systems

M-System 10

The RES Equation – Revenue, Efficiency, Spin (2012-16)

A powerful but simple economic equation that can only be fully effective within a digital economy. Take the initial income of a network (R), measure not a company from its profit alone, but also the profit made from its expenses (E), optimize E, and Spin (increase the speed of all spending).

M-System 10

The RES Equation – Financial Equivalence (2017)

Later, we will talk about S-World UCS™ MARS Resort 1. Fact or fiction remains to be seen, but on Mars, we can implement the RES Equation with a 100% Efficiency, which is to say every cent spent is accounted for; where after we cut tax and spin, creating a supercharged economy unimaginable on earth. We call this 'Financial Equivalence.' Our inspiration: 'the law of conservation of energy.'

M-System 11
QuESC (The Quantum Economic System Core) (2012 - 16)

The heart of the M-System's design is founded on the notion by Hawking that 'People are like Atoms,' QuESC entangles us - 'the people'- with powerful predictive and logistic software within a circular butterfly effect, continually experimenting and improving upon all S-World systems.
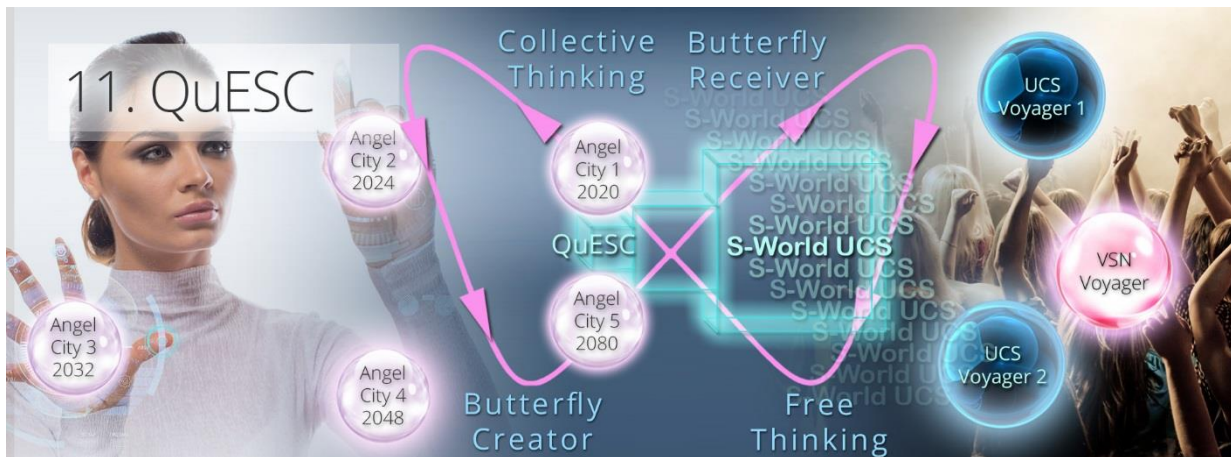
M-System 12A
S-World UCS™ & Villa Mogul (2003 - 2012)

Originally imagined in 2003 as 'Villa Mogul,' the idea to create a management simulation game like Railway Tycoon. The 'hook' is that the game was based on a real business. By September 2012, it had developed into American Butterfly – The Theory of Every Business – Chapter 8: S-World UCS - Universal Colonization Simulator.

M-System 12b
S-World UCS™ MMO (2012 to 2017)

S-World UCS™ is a design for an MMO game that shows how to make a business and economic empire so rich - one could invest in super projects such as 'African Rain' or 'Universal Colonization.' The game teaches, simulates, and shines a light on the S-World Network's future ambitions.
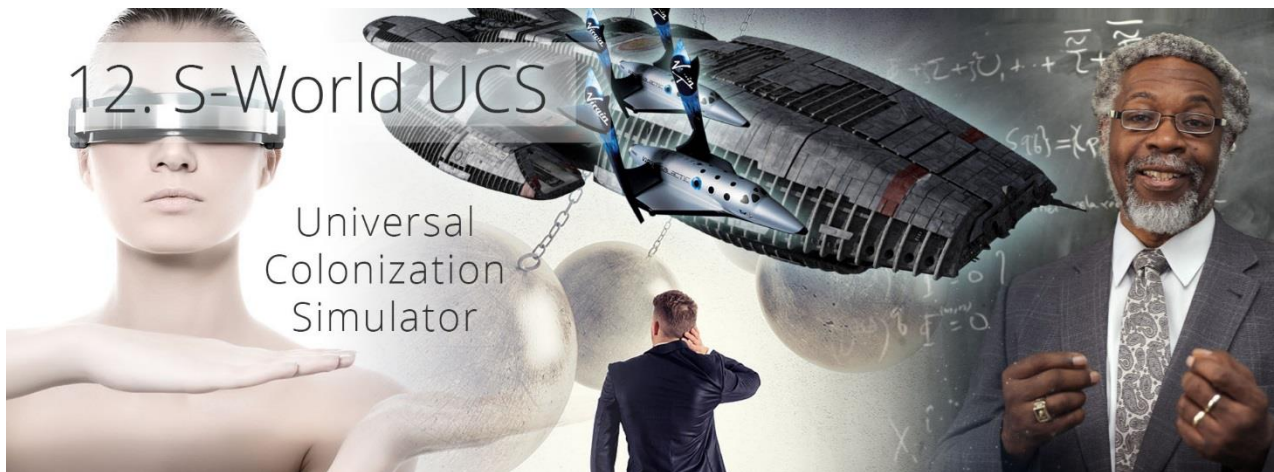
M-Systems 13 & 14
The S-World UCS™ Quantum Systems

Now, we arrive at arguably the main event - the S-World UCS™ quantum systems that create first an economic time machine, and then logistical anchors into the future, from which we desire to shape the world via simulation and then implementation; to create a better future for our children and children's children.
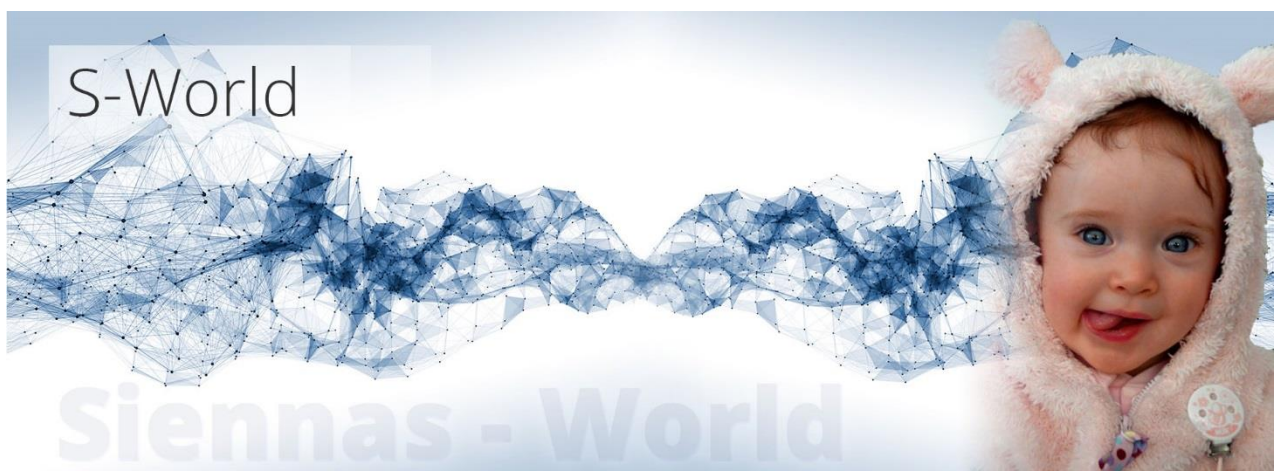
In the now-familiar system design below, we can see the quantum systems flying out of M-System 12. S-World UCS™, scooping up Angel POP and the Angelverses on the way, delivering them full circle back to M-System 1. And, as before, the rodeo starts again but this time with greater momentum.

M-System 13 – **Eureka!!!**
S-World UCS™ Voyagers (September 2012)

The eureka moment arrived courtesy of Garrett Lisi's 'A Theory of Everything.' In which Lisi presents his quantum coral analogy where "each individual was in many other locations experiencing them as separate individuals," and the quantum mechanics mantra:

"Everything That Can Happen Does."

This revelation arrived in the middle of writing the final American Butterfly 'Theory of Every Business' chapter - 'S-World UCS™,' soon after writing the S-World Virtual & Business Network chapter (S-World VSN™), in which the game sat within the virtual framework and had become entangled and indistinguishable from the conceptualised business network.

This consideration became the tipping point where **a simulated game and business software became a form of economic time travel.**

The consideration was that we would create a copy of the S-World UCS™ Network called 'UCS™ Voyager,' and send it forwards in time at a speed twice our own. So that in 6 months of our time, the simulation would be a year ahead. And within, business owners, managers, staff, and gamers alike could conduct their own business simulations. Then, from all the possible outcomes, choose which actions from the simulations to follow back in real-time.

Businesses follow the wins, avoid the losses, and **replay opportunities that showed potential** in Voyagers 2, 3, 4...

What if you could look to the future and see millions of eventualities? What if you could use this information to assist you today?

Welcome to S-World UCS

Welcome to your future

M-System 14 – **Eureka²**
S-World UCS™ **Angel Cities** (2012 - 2017)

Angel Cities are 5 future simulations of the network from 2020 to 2080; first created as logistical support for UCS™ Voyagers, but have since become the key ingredient, subject of the movie framework, and the 'why' behind the entire project. In terms of M-theory and its component quantum mechanics, we respect Professor Richard Feynman's alternative histories (sum over histories), which tells us that no unobserved system has a definite past or future.

"Quantum physics tells us that no matter how thorough our observations of the present, the (unobserved) past, like the future, is indefinite and exists only as a spectrum of possibilities."

From 'The Grand Design' by Professors Stephen Hawking & Leonard Mlodinow

Shaping the Future

Set in the years 2048 and 2080, Angel Cities 4 and 5 are the nerve centre for the S-World network's long-term ambitions, described as a set of 'super projects.' In this simulation, we work within the M-Systems framework to plan the best Earth we can logistically create. And once the blueprint is set, we create paths back through Angel Cities 3, 2 and 1 so that each company, development, wonder, and 'special project' that we wish to exist in 2048 and later in 2080 has a definite history back from the future to our time.

By planning our future in intricate detail and working in waves of probability, ripple, & butterfly effects back through the future Angel Cities, we can control our destiny.

Angel City 5 (2080)

Angel City 5 is the last of the founding S-World Angel Cities set in 2080. Above, we see my darling daughter Sienna as herself and as an angel guiding us towards a better future, in keeping with the S-World mantra by Professor Isaac Asimov:

"You may not predict what an individual may do, but you can put in motion things that will move the masses in a direction that is desired, thus shaping if not predicting the future."

This future <> past relationship is in a constant superflux; but one thing is constant, our ambition, the set of 'super and special projects' that are to be achieved. In game theory and military strategy, they call it 'Commander's Intent' (but instead of 'take that hill, it's 'make them projects'), as commanders know that the best-laid plans can quickly fall apart in battle. We must allow for every eventuality when creating the strings that lead to the creation of our 'super and special projects.'

However, once enough strings and ripples have congregated, it gets easier.

End of Extract

The original version then continued to show the first 16 Special Projects in;

An Ecological and Philanthropic Theory of Everything plus Space

www.AngelTheory.org/Angel-City-5-Special-Projects

This link then developed into 64 special projects and become the subject of 64 Reasons Why 1 for Kate Raworth. www.angeltheory.org/64-reasons-why

www.angeltheory.org/Supereconomics--64-Reasons-Why--Summary-v1.10b--24-Feb-2020.pdf

CHAPTER 8
87 QUINTILLION HISTORIES

This chapter follows from the last but is two years on. It's amazing to read through the last chapter and see how far the theory has come. From the idea of passing data back and forwards from 2020 (Angel City 1) to 2080 (Angel City 5) and back and forwards, now developed into a step by step guide per the Š-ŔÉŚ™ Financial Engineering plan described in History 2 and 3. And as we shall read the intention of creating 87 quintillion histories (87,714,630,433,327,500,000) before 2080

Jumping back to the chapter. 7: The S-World UCS™ M-Systems: **(from 2017)**
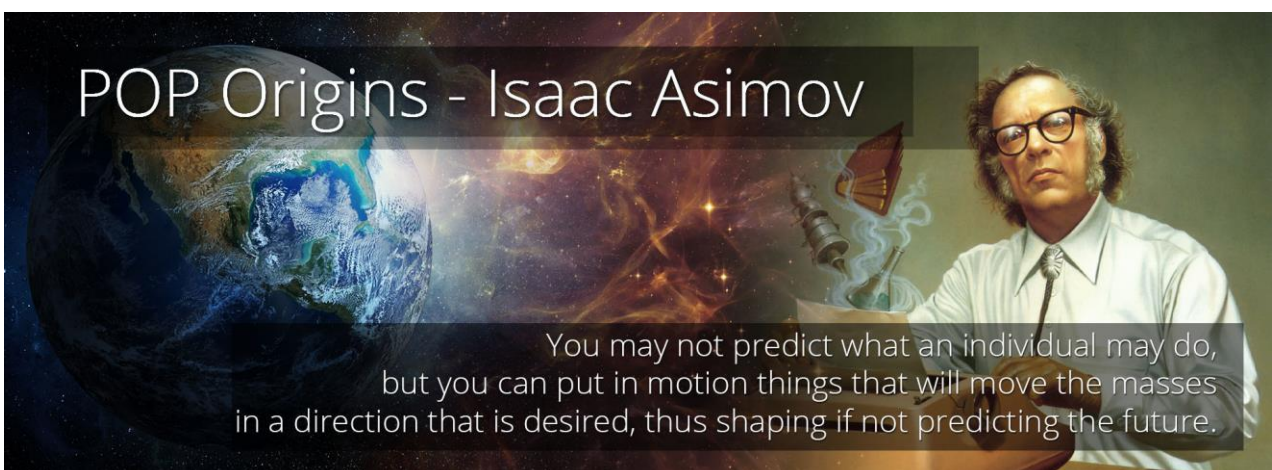
"SHAPING THE FUTURE

Set in the years 2048 and 2080, Angel Cities 4 and 5 are the nerve centre for the S-World network's long-term ambitions, described as a set of 'super projects.' In this simulation, we work within the M-Systems framework to plan the best Earth we can logistically create. And once the blueprint is set, we create paths back through Angel Cities 3, 2 and 1 so that **each company, development, wonder, and 'special project' that we wish to exist in 2048 and later in 2080 has a definite history back from the future to our time.**

By planning our future in intricate detail and working in waves of probability, ripple, & butterfly effects back through the future Angel Cities, **we can control our destiny.**

This future < > past relationship is in a constant superflux; but one thing is constant, our ambition, the set of 'super and special projects' that are to be achieved. In game theory and military strategy, they call it 'Commander's Intent' (but instead of 'take that hill, it's 'make them projects'), as commanders know that the best-laid plans can quickly fall

apart in battle. We must allow for every eventuality **when creating the strings/paths** that lead to the creation of our 'super and special projects.'

Since writing The S-World UCS™ M-Systems and creating Š-ŔÉŚ™ Financial Engineering Histories 2 and 3, this 'Commander's Intent' idea that we simplify our command to simply **'make them projects,'** had endured, indeed it was genius. Thank you, Matthew Dixon and Brent Adamson, for the book The Challenger Sale.

Now two years on, in this book; '64 Reasons Why' otherwise known as "THE WHY", we have developed the idea '**make them projects**' into this actionable plan, and the idea is now simplified by Angel City 5 being the end result of the 64 plus special projects in Malawi, and special projects from as many other locations as can be engineered.

Š-ŔÉŚ™ Financial Engineering was a decisive factor, the extra cash flow it generates allows us to plot a Grand Śpin Network that is Net-Zero and spent most of its cash flow on special projects. With the Š-ŔÉŚ™ Supermonopoly advantage, we could afford to spend double on Net-ZERO products, services and solutions. And in later years a lot more than double. So, if a house build cost is $150,000 Net-Zero or $75,000, not Net-Zero we can afford to pay the Net-Zero amount.

After all, all this Supermonopoly profit must be spent somewhere.

Š-ŔÉŚ Financial Engineering v6

Š+Ŕ = $8 billion

Š (last year) + Ŕ (this year) = $8b

Ś2

2025 Ĉash Flow = $15.2 billion

LCŔ
Law of Conservation of Ŕevenue

↑ ↓ ↑ ↓

Ĉash Flow = 8b

Ĉash Flow = 7.2b

Next Year (2026) →

É90% Recycle Éfficency

Jan Feb Mar Apr May, June, July

Aug Sept, Oct, Nov, Dec

Š = $6.48 billion

$0.8 billion lost

$0.72 billion lost

Total Losses $1.52 billion
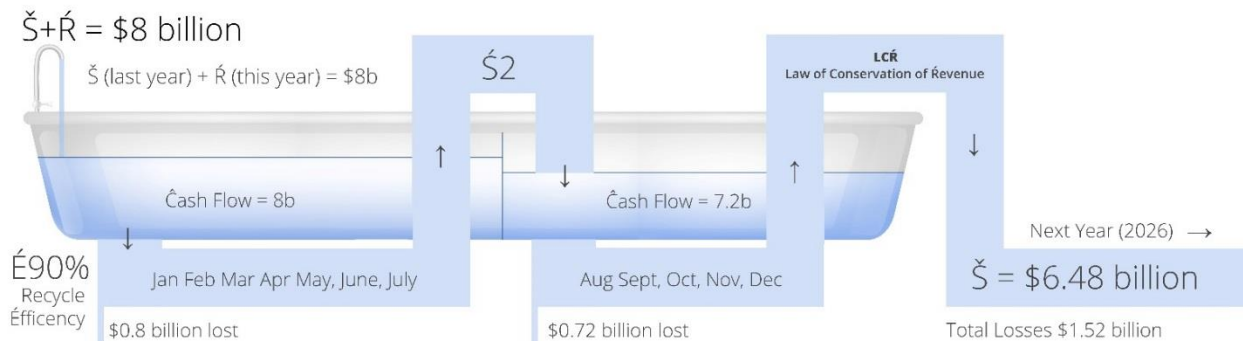
In S-World UCS™ History 3, I cautiously created a path (paths are histories) from 2024 to 2080 for a county – Malawi to create 4 new cities (founded 2020, 2024, 2032 and 2048), and in the process build over 10 million (social housing) villas, provide paid training positions (Paid**2**Learn) and good jobs for every Malawian that wants one, and in general create a country that is less than Net Zero and abundant with special projects, the results of more than USD 12 trillion in spending on making everything Net-Zero and special project enabling between 2024 and 2080.

This would be a miracle in Economics, and yet **it seems to be within our grasp.**
Please watch Video 34

History 3 www.angeltheory.org/video/34
History 2 www.angeltheory.org/video/25

Then in History 2, I added trade, starting with a Śpin of 8 and creating 16 Cities/Large Towns, which was adventurous, and more fun (better for the MMO game). History 2 includes a big recession and two big depressions, in which all demand for trade stopped for a year or more, and was less than normal for 5 years or more, but by manipulating É and Ś – making É close to, or at 100% and increasing Ś up to 32, **I managed to increase cash flow in every one of the 15 years in which the one recessions and two depressions hit.**

The disadvantage that normal companies have, that can lead to uncertainty, bubbles, crashes, bank runs, recessions and depressions are that their banks do not have enough money to pay all creditors if all creditors asked for their money back at the same time. Whereas with Š-ŔÉŚ™ Financial Engineering the money is always in the bank. And if possible, within a giant translucent pyramid so everyone can see the money is still there. Unlike many gold reserves in which it is said that each bar of gold has many owners.

History 2 and 3 are two different paths to Angel City 5. I could easily make many paths and come up with better solutions, but it is time-consuming, as within the spreadsheet I have not

worked out how to add rows/years of Śpin automatically, so each one must be done by hand. So I designed a CMS and software that will allow me, and you to create many different histories, and this will become part of the S-World UCS™ MMO Gameplay. As we desire the citizens of earth to play many simulations / games.

The Š-ŔÉŚ™ Software CMS and Controller

On spreadsheet tab; 'ŔÉŚ-v4c Soft - Initial Inputs' we see 11 sets of variables that are set at the begging of the game, for instance, set 1 is Initial Investment Ŕevenue (USD) in cold hard cash. Next on the spreadsheet tab; 'ŔÉŚ-v4c Soft 24>80 Controller' we see the master control system, which shows all the variables that follow paths/histories from 2024 to 2080, where if one changes the figure for É we see it changes almost every cell. (Note the spreadsheet tab is a demo and only actually works for the first 4 years.)

The following are all variables that can be changed by the UCS™ Controller.

É - Recycle Éfficiency	Ś - Śpin	Global Growth Average
(Ŕ1) Exports Trade	(Ŕ2) Real Estate Sales	(Ŕ3) Aid
(Ŕ4) Cities Phase 1	(Ŕ4) Cities Phase 2	Network Output (GDP)
Global Output (GDP)	Share Of Global GDP	Imports and Land
Exports - Ŕevenue 1	Trade Deficit or Surplus	Projected Cash Flow
Spartan Quality Homes	Virtual Education	S-World Health Care
Angelwing Development	Solar Budget	Electric Car Budget

Below we see the first seven columns of the ŔÉŚ-v4c Software 2024 > 2080 Controller, in which the different coloured cells have different attributes/laws:

Year	Recycle Éfficiency É	Śpin Ś	Global Growth Average	Ŕevenue 1 Exports (Ŕ1)	Additional Network Growth	Macro Financial Events
2024	90.00%	8	103.00%	$ 236,127,500	131.0%	100.0%
2025	95.00%	16	103.00%	$ 318,606,836	131.0%	100.0%
2026	97.50%	24	103.00%	$ 429,896,203	131.0%	100.0%
2027	99.00%	32	103.00%	$ 580,058,947	131.0%	100.0%
2028	99.00%	32	103.00%	$ 782,673,538	131.0%	100.0%
2029	99.00%	32	103.00%	$ 1,056,061,404	131.0%	100.0%
2030	95.00%	32	103.00%	$ 1,424,943,653	131.0%	100.0%
2031	95.00%	32	103.00%	$ 1,922,676,471	131.0%	100.0%
2032		32	2032	2032	2032	2032
2032	95.00%	32	102.50%	$ 2,029,865,684	103.0%	100.0%

Year	Recycle Efficiency É		In-Game Display	Value		
2033	95.00%	32	102.50%	$ 2,143,030,696	103.0%	100.0%
2034	95.00%	32	102.50%	$ 2,262,504,657	103.0%	100.0%
2035	99.00%	32	100.00%	$ 2,036,254,192	100.0%	90.0%
2036	99.00%	32	97.50%	$ 1,091,941,310	100.0%	**55.0%**
2037	99.00%	32	**95.00%**	$ 1,556,016,367	100.0%	150.0%
2038	99.00%	32	97.50%	$ 2,123,962,341	100.0%	140.0%
2039	99.00%	32	102.50%	$ 2,242,373,242	103.0%	100.0%
2040	99.00%	32	102.50%	$ 2,367,385,550	103.0%	100.0%
2041	97.00%	32	102.50%	$ 2,499,367,294	103.0%	100.0%
2042	97.00%	32	102.50%	$ 2,638,707,021	103.0%	100.0%

90.00%	Initial Input from Tab; ŔÉŚ-v4c Soft - Initial Inputs
103.00%	In-Game Display and Variable Adjustment
95.00%	An Event That Increases The Value of a Variable
95.00%	An Event That Decreases The Value of a Variable
90.0%	Recession minus 10%
55.0%	Recession minus 45%
150.0%	Recession Ended Plus 50%

Technically it works simply by the cell below each cell (except for the date) changing to the value of the cell above. In the Recycle Éfficiency É column in 2035 a new input of 99% increases its cell and all the cells below to 99% until another event is reached. In this case in 2041 a lower value of 97% and as before all cells below change to the same value.

This template was initially created to show just four years, 2024 to 2027, and used an É higher than would be possible, and increased Śpin in an equally imposable way. We are only looking at the CMS LOGIC design, the years 2028 onwards were added as an afterthought. (CMS Logic design is simply making a CMS adjustment point for every variable (or digit) in the system.)

This may look like a hard task to program, but it's easy enough, the general rule is; because of the similarity between a spreadsheet and a database table, is easy to program. Add a designer to make the CMS look as good as the front end. Now we have a system of making many histories. How many depends on two things, the number of people making histories, and the number of AI and Machine Learning assisted histories.

The number of AI and Machine Learning assisted histories is the subject of this chapter, 87 Quintillion Histories. I'm going to do my best to specify how the AI and Machine Learning histories are designed, but relative to what Microsoft, Facebook, Google and Amazon are doing, there will be much better ways to do this. This presentation is just to get the ball rolling, a ball that has a lot more rolling to do. I start out with some attempts to calculate the Simulation Events as computer calculations hoping to engineer a complete solution, but along the way, this proved impossible and instead I describe the different variables for an elite group to turn in to precise systems design further down the road.

The Volume of Histories **Between** 2020 and 2080

Given one supercomputer that was updated to keep up with a diminishing Moore's law. Here is the math, which you can find on the '87 Quintillion Histories' tab of the spreadsheet,

A Supercomputer can spit out answers to 200 quadrillion (or 200 with 15 zeros) calculations per second, or 200 petaflops, according to Oak Ridge National Laboratory

1)	200,000,000,000,000,000	1 second
2)	12,000,000,000,000,000,000	60 seconds
3)	720,000,000,000,000,000,000	60 minutes
4)	17,280,000,000,000,000,000,000	24 Hours
5)	6,307,200,000,000,000,000,000,000	365 days
6)	378,432,000,000,000,000,000,000,000	60 years

Mores Law: Processor chips (the small circuit boards that from the backbone of every computing device), double in speed every 18 months. But this is a diminishing law.

Then on the '87 Quintillion Histories' tab, we see some calculation to attribute the two above behaviours and we are left with 8,771,463,043,332,750,000,000,000,000,000 (8.7 Trillion Quintillion) supercomputer calculations from 2020 to 2080. I then initially considered we need 1 billion different nodes (info gathering points) to gather the info we need from the experiments. So, each history is a measure of 1 billion data points.

This was where we were at a month back, (it's now 24th December 2019) before filling in the details for part 4 of this book. Internalities and Net-ZERO DCA. Dynamic Comparative Advantage. Let's hear from the creator of the term Dynamic Comparative Advantage; Nobel Laureate: Joseph Stiglitz

Joseph Stiglitz – Dynamic Comparative Advantage.

> "It has become conventional wisdom to emphasize what matters is not static comparative advantage but dynamic comparative advantage. **Korea did not have a comparative advantage in producing semiconductors when it embarked on its transition. Its static comparative advantage was in the production of rice. Had it followed its static comparative advantage** (as many neoclassical economists had recommended), then that might still be its comparative advantage, **it might be the best rice grower in the world, but it would still be poor.**"

Thank you, Stiglitz and Greenwald, for the above which could have taken an entire book to explain.

Stiglitz and Greenwald continue:

> "There seems to be a circularity here. What should a country do today to create its dynamic comparative advantage? Ascertaining a country's static comparative advantage is difficult; ascertaining its dynamic comparative advantage **is even harder**."

Fortunately, with part 4 in the bag, we can see the best Dynamic Comparative Advantage for the Malawi Grand Śpin Network, is to specialize in making Net-Zero products and industry. First to supply the S-World Malawi Grand Śpin Network itself, Second and when the market opens to Africa, which may be accelerated and significant if Aid becomes conditional on not increasing carbon emissions or an idea like the Carbon Traffic lights punished carbon-producing companies in the market who then clean up their act. Third, if the USA, Asia or European markets have demand that we can supply, but we don't count these chickens at this time, they are a bonus. **History 3 does not have a significant market inflow, and because of this, the model can be executed in a great many countries without a supply and demand problem**, caused by other network companies themselves. We shall return to the

spontaneous creation of other Grand Śpin Networks later in this chapter.

Below we see the Malawi Grand Spin Network in 2025, and 4096 companies seen in networks of 64. Each cell is 64 companies that in 2025 spend cash flow of $16,367,959,875 ÷ 4096 = $3,996,084 each per company (on average), thus each cell be see below is $3,996,084 x 64 = $255,749,373.05

Note this is the corrected figure from N:84 on the tab 'H3) ŚÉŚ-v5 | S-World History 3b'

THE MALAWI **Grand Śpin Network** 2025
64 Cube – Industries Map

Government Net-Zero Infrastructure	Government Electronic Cars	Government Family Planning	Government Healthcare	Tesla Gigafactory Network City	Tesla Gigafactory Network City	Tesla S-World UCS™ Angel City 1	Marketing Services City 1 & 2
Government Solar Energy Arrays	Government Solar Energy Infrastructure	Government Net-Zero Infrastructure	Government Properties Developed	Tesla Gigafactory Network City	Tesla Gigafactory Network City	Virgin Angel City 1	Retail Services City 1 & 2
Government & S-World Food	Government & S-World Water	University Suburbs	FIFA WC Bid Infrastructure & Stadiums	Tesla Gigafactory Network City	Villa Secrets Berkshire Hathaway	Virgin Network City	Travel Services City 1 & 2
Investor's Sienna's Forests	Microsoft S-World TBS™ Angel City 1	Facebook S-World VSN™ Angel City 1	Google VSN™ Tesla GT AC 1	Soft Dev. Angel City 1	Soft Dev. Angel City 1	Peet Tent	Peet Tent
Investor's Sienna's Forests	Microsoft Net-Zero DCA™ Angel City 1	Facebook S-Web™ Angel City 1	SpaceX S-World UCS™ Angel City 1	Healthcare City 1 & 2	Waste Disposal City 1 & 2	The Arts City 1 & 2	Entertainment City 1 & 2
Sienna's Paid2Learn Forests	Spartan Contract Paid**2**Learn	Spartan Contract Paid**2**Learn	Spartan Contract Paid**2**Learn	Spartan Electronic Cars	Spartan Electronic Cars	Solar or Nuclear Power	S-World Film City 1 & 2
Spartan Housing Forests	Net-Zero Spartan Housing	Net-Zero Spartan Housing	Net-Zero Spartan Housing	S-World VSN™ Virtual Education	Advancing Human Potential	S-World Water	S-World Water
Sienna's Forests Network City	Network City Infrastructure	Network City Real Estate	Network City Industry	Net-Zero Machinery Network City	Their Oceans Net-Zero Plastics (AC1)	Experience Africa Conservation	Experience Africa Conservation

Now we have a basic picture of how a Grand Śpin Network will look in its second year, from which we can travel forward or backwards, per History 3.

The spreadsheet below is fully described in Chapter 18: POP – The Point of Profitability and can be seen on the spreadsheet tab; H3) ŚÉŚv5 Jobs and Education.

Š-ŔÉŚ™	Financial Engineering						Š-ŔÉŚ™
	Network Credits Ťender	Network Credits Ťender	Adjusted for Growth	Adjusted for Growth	Div. By	Adjusted for Growth	
	Cash Flow	Number of Companies	Spartan Labour Basic + Bonus1	# of Paid 2 Learn Trainees	Trainees Per 1 Labour	Paid 2 Learn Trainees Basic + Bonus1	
2024	$ 5,685,975,000	2,048	$ 21,690	262,144	4	$ 1,356	2024
2025	$ 14,894,843,486	5,120	$ 22,173	573,440	3.5	$ 1,584	2025
2028	$ 53,185,830,818	15,565	$ 24,185	1,494,221	3	$ 2,015	2028
2032	$ 106,194,771,025	24,576	$ 27,707	2,359,296	3	$ 2,309	2032
2040	$ 431,185,712,853	94,208	$ 24,087	7,536,640	2.5	$ 2,409	2040
2048	$ 867,395,313,639	131,072	$ 27,207	10,485,760	2.5	$ 2,721	2048
2050	$ 1,283,942,425,681	163,840	$ 32,218	10,485,760	2	$ 4,027	2050
2060	$ 2,892,474,879,905	245,760	$ 37,800	15,728,640	2	$ 4,725	2060
2070	$ 5,028,641,551,041	294,912	$ 42,781	16,515,072	1.75	$ 6,112	2070
2080	$ 8,204,082,483,521	327,680	$ 49,072	15,728,640	1.5	$ 8,179	2080

Using this spreadsheet and the results from the Controller (when created properly) give us a lot of information about the journey of the network from 2020 to 2080. If we now compare this simulation (History 3), with the original idea of ideas flying back from 2080 to 2024 and then ideas flying back and forth, History 3 has a much more exact/descriptive journey.

The above scenario is plotted to make Malawi into a dream of what we would want for our children's children in the year 2080. And there are no economic reasons that as long as other Grand Śpin Network can attract investors in City Suburbs, (including POP investment from other Grand Śpin Networks) that we cannot reproduce this model in the poorest 100 counites. Each new successful Grand Śpin Networks leverages the expectations that the model can work in many locations. Grand Śpin Networks will also work in some countries that are not the poorest 100, Greece, Spain, Portugal, Italy, France, The USA, UK India and many others.

Because each Grand Śpin Network tackles climate change and creates special projects it's always a good thing, and so to a degree the more the better. Remembering we have the Angel POP law; **Grand Śpin Networks in locations in extreme poverty are special projects** and its cubic financial dimensions law that ensures Africa and other poor countries grow at the least at the same pace as the West. There is no chance of S-World turning its back on where it is most needed, even if it wanted to. For example, if like Steve Jobs - I was fired from my own creation, as has happed in my past, the laws such as Angel POP must be ironclad.

The net result is we now can with some precision plot Malawi and other locations futures from 2020 to 2080. **Using these results and the 'make them projects' commanders' intent method we can create the perfect 2080**, we can move the masses in the direction that is desired. Now in place of just a dream, we have a very detailed plan, and soon with History 4, then 5, and millions more we shall have an optimized future, A best of the best. And when we hit a trillion histories the best of the best of the best. And so on.

So far, we have talked about Grand Śpin Networks, 4096 companies in Malawi in 2025 compressed into 64 subnetworks of 64 companies each.

In book 2 - I go into detail about an individual network of companies (1 of the 4096)
In the **S-World Villa Secrets Scenario 8 – Specialize and Scale chapter.**

S-World *Villa Secrets*

Scenario 8 – Specialize and Scale

In this chapter we see a network of individuals who are in the same industry – well actually two industries Real Estate and Luxury Travel, and we see we look for 32 of 64 individuals or partnerships who have specific or complementary skills that others in the network do not have, from speaking German, Indian and Mandarin, to copywriting to photography US shift times, or weekends, or for example a safaris expert. The idea is that we create an S-Web website for everyone and each property they represent, so hundreds and maybe thousands of websites/web-franchises in a single company. Most will feature safaris and when a client who was looking at one thing sees the safaris by the same company that they are already discussing another aspect of their travel with may enquire. This enquiry goes to the Safari Expert who uses the S-Web and S-World systems to make a booking, then shares the commission (which last time was about $15,000.) with the website that generated the enquiry and the person who added the property to the database. All residual income to the network.

If I start to get into the detail I will go on for 50 pages, so I will leave it in Book 2 for now, but take away with us the knowledge that we are now plotting on the individual person level, all the way to Angel City 5.

In terms of creating a very detailed explanation of how one country can take the M-System 14. Angel City journey from 2020 to 2080, I would be amiss if I did not acknowledge my teachers.

One book has been a constant companion since 2016; The Grand Design by Professors **Stephen Hawking** and **Leonard Mlodinow.**

We shall soon see how Hawking and Mlodinow's Good Model added order to the process, and as you will Alternate Histories tells the story of, the Feynman Sum Over Histories. Exactly how we got from reading this to three years later having a comparable hypothesis in economics is not clear, like all **'As If'** analogies, we are not talking about Supereconomics being the same as the physics, rather Supereconomics acts **As-If** it was the physics.

(This now continues in the chapter after the next)

Chapter 4

Characteristics Of Monopoly

From Zero to One

What does a company with large cash flows far into the future look like? Every monopoly is unique, but they usually share some combination of the following characteristics: **proprietary technology, network effects, economies of scale, and branding.**

  This isn't a list of boxes to check as you build your business—there's no shortcut to monopoly. However, analyzing your business according to these characteristics can help you think about how to make it durable.

1. Proprietary Technology

Proprietary technology is the most substantive advantage a company can have because it makes your product difficult or impossible to replicate. Google's search algorithms, for example, return results better than anyone else's. Proprietary technologies for extremely short page load times and highly accurate query autocompletion add to the core search product's robustness and defensibility. It would be very hard for anyone to do to Google what Google did to all the other search engine companies in the early 2000s.

As a good rule of thumb, proprietary technology must be at least 10 times better than its closest substitute in some important dimension to lead to a real monopolistic advantage.

The clearest way to make a 10x improvement is to invent something completely new. If you build something valuable where there was nothing before, the increase in value is theoretically infinite.

A drug to safely eliminate the need for sleep, or a cure for baldness, for example, would certainly support a monopoly business. Or you can radically improve an existing solution: once you're 10x better, you escape competition. PayPal, for instance, made buying and selling on eBay at least 10 times better. Instead of mailing a check that

would take 7 to 10 days to arrive, PayPal let buyers pay as soon as an auction ended. Sellers received their proceeds right away, and unlike with a check, they knew the funds were good. Amazon made its first 10x improvement in a particularly visible way: they offered at least 10 times as many books as any other bookstore.

You can also make a 10x improvement through superior integrated design. Apple's iPad was a clear improvement on anything that had come before by at least an order of magnitude: tablets went from unusable to useful.

2. NETWORK EFFECTS

Network effects make a product more useful as more people use it. For example, if all your friends are on Facebook, it makes sense for you to join Facebook, too. Unilaterally choosing a different social network would only make you an eccentric.

Network effects can be powerful, but you'll never reap them unless your product is valuable to its very first users when the network is necessarily small. **Mark Zuckerberg's first product was designed to get all his classmates signed up, not to attract all people of Earth.** This is why successful network businesses rarely get started by MBA types: the initial markets are so small that they often don't even appear to be business opportunities at all.

3. ECONOMIES OF SCALE

A monopoly business gets stronger as it gets bigger: the fixed costs of creating a product (engineering, management, office space) can be spread out over ever greater quantities of sales.

Software startups can enjoy especially dramatic economies of scale because the marginal cost of producing another copy of the product is close to zero.

Many businesses gain only limited advantages as they grow to large scale. Service businesses especially are difficult to make monopolies. If you own a yoga studio, for example, you'll only be able to serve a certain number of customers. You can hire more instructors and expand to more locations, but your margins will remain fairly low and you'll never reach a point where a core group of talented people can provide something of value to millions of separate clients, as software engineers are able to do. A good startup should have the potential for great scale built into its first design. Twitter already has more than 250 million users today. It doesn't need to add too many customized features in order to acquire more, and there's no inherent reason why it should ever stop growing.

4. BRANDING

A company has a monopoly on its own brand by definition, so creating a strong

brand is a powerful way to claim a monopoly. Today's strongest tech brand is Apple: the attractive looks and carefully chosen materials of products like the iPhone and MacBook, the Apple Stores' sleek minimalist design and close control over the consumer experience, the omnipresent advertising campaigns, the price positioning as a maker of premium goods, and the lingering nimbus of Steve Jobs's charisma all contribute to a perception that Apple offers products so good as to constitute a category of their own.

Many have tried to learn from Apple's success: paid advertising, branded stores, luxurious materials, playful keynote speeches, high prices, and even minimalist design are all susceptible to imitation. But these techniques for polishing the surface don't work without a strong underlying substance. Apple has a complex suite of proprietary technologies, both in hardware (like superior touchscreen materials) and software (like touchscreen interfaces purpose-designed for specific materials). It manufactures products at a scale large enough to dominate pricing for the materials it buys. And it enjoys strong network effects from its content ecosystem: thousands of developers write software for Apple devices because that's where hundreds of millions of users are, and those users stay on the platform because it's where the apps are.

These other monopolistic advantages are less obvious than Apple's sparkling brand, but they are the fundamentals that let the branding effectively reinforce Apple's monopoly.

Beginning with brand rather than substance is dangerous. Ever since Marissa Mayer became CEO of Yahoo! in mid-2012, she has worked to revive the once-popular internet giant by making it cool again. In a single tweet, Yahoo! summarized Mayer's plan as a chain reaction of "people, then products, then traffic, then revenue." The people are supposed to come for the coolness: Yahoo! demonstrated design awareness by overhauling its logo, it asserted youthful relevance by acquiring hot startups like Tumblr, and it has gained media attention for Mayer's own star power. **But the big question is what products Yahoo! will actually create.**

When Steve Jobs returned to Apple, he didn't just make Apple a cool place to work; he slashed product lines to focus on the handful of opportunities for 10x improvements. No technology company can be built on branding alone.

Thank you, Peter, for that excellent introduction. I will now describe the 7 technologies plus S-World Film relative to the 4 points; Proprietary Technology, Network Effects, Economies of Scale and Branding and for each discussing the 10x qualities of each system. Noting that it is in the combinatorial explosion of all systems working together that pulls each individual system to 10x or higher.

Once all systems are combined most every company in the network will adhere to the following description

"By "monopoly," we mean the kind of company that's so good at what it does that no other firm can offer a close substitute."

Modern Monopolies: What It Takes to Dominate the 21st Century Economy By Nicholas L. Johnson, and Alex Moazed

Audible Chapter 6. – Minus 8.20 Seconds (Book Chapter 5)
From Zero to One – Finding Product and Market Fit
One of the biggest mistakes that we've seen many founders of platform startups make is to try to do too much at the same time. Tomasz Tunguz, a partner at Redpoint Ventures a venture capital firm that frequently invests in platforms, called this; chasing two rabbits at once. For platforms, this mistake most frequently takes the form of trying to build multiple core transactions from the start. Founders will look at successful platforms such as LinkedIn UBER or Facebook and think that they have to provide a similar experience to their users in order to be successful, but creating multiple transactions right away is usually a big mistake, as it confuses users and makes it harder to grow the network and optimize the core transaction. "If you chaise two Raboits both will escape, pick one and seize it," Tunguz said.

   Eventually, it makes sense to start building multiple transactions in order to expand the network, but that first transaction is always the hardest one to get right. Early-stage platforms should almost always start with just one transaction, trying to deliver on more than one core transaction at a time is often a death sentence for such platforms, in fact, none of the more established platforms we mentioned started out the complex multi-tiered networks that they have today.

   When Linkedin launched in 2002 it started with simple profiles that allowed users to connect with other professionals, only after the network had grown to nearly 2 million users did LinkedIn start to build additional transactions. In January 2005 it launched LinkedIn Jobs, a market place for online recruiting, not only was this a new core transaction, but it also was a completely different platform type, a services market place built on top of a social network. Later linked built in more advanced messaging features, and after a few aquations it

eventually built out a content platform with the LinkedIn Publishing platform. Applico was an early adopter of the later we were invited to participate in the platforms pilot program.

However, going after multiple platform types from the start is a sure-fire path to failure. Building liquidity in one market is hard enough, doing it in two at the same time is almost impossible. At best you'll end up with a platform that has weak penetration in two markets. Multiple platform businesses with low market penetration will be much less valuable than one platform that dominates its market. "Founders should ask whether faster growth and dominance in one market segment builds a more valuable business than smaller penetration of and slower growth in two markets?" Tunguz said.

Most of the time and particularly in early-stage markets a focused startup perceived to be on the path to monopolizing a market will be more valuable. LinkedIn progression from simple social network to a platform conglomerate with multiple platform types is typical. Uber started out just with Black Cabs before it expanded into so-called ridesharing with Uber X, now by far its most popular service. And only after it established itself as the dominant taxi network in the United States, well ahead of competitor Lift, did Uber began to experiment with other transaction types, such as Uber Rush (Courier Service) and Uber Eats (Food Delivery).

Simplicity by Design

Facebooks platform followed a similar trajectory, when Facebook started it had only very simple profiles and users could view only people who went to the same school, users couldn't share links messages or photos with friends, and users couldn't 'like' anything, there were no third-party apps and no news feed, there was not even a wall on friends profile where users could write messages to them. All of these features were developed later as the platform grew over time.

At the start, Facebook was just a collection of profiles that could connect with one another through the double opt-in interaction of 'friending.' This simplicity was by design, many of Facebooks earlier competitors had many more features; Club Nexus created in the fall of 2001 by Orkut Büyükkökten the future creator of Googles Orkut was the first college-specific social network, Facebook was not launched until 2004. Launched at Stanford were Büyükkökten was a student; Club Nexus allowed students to chat, send emails, post events and personal ads, buy and sell used goods, and post images and articles. A talented programmer Büyükkökten loaded Club Nexus with every interesting feature he could think of. However, this glut of features, make the platform very difficult to use and weakened the strength of its Network. Users did not get the sense that they there were many other people on the platform, as they were each dispersed over many different types of transactions. As a result, Club Nexus never really caught on, it reached 1,500 members out of a student body of 15,000 within six weeks of its launch at Stanford, but after reaching about 2,500 users, usage levelled off – the platform was just too complicated which diluted its network effects.

Another of Facebook's early competitors was House System, a social network created by a Harvard senior in 2003, a few months before Facebook was founded, House System allowed Harvard students to buy and sell books and review courses, among other features. It also allowed them to upload photos to what it called a universal Facebook. Sam Lesson a classmate of Mark Zuckerberg, who would later go on to become head of product at Facebook remembered using House System. He called it "A huge sprawling system that could do all sorts of things," a few hundred students signed up, but House System never got much traction. After

Facebook launched, House Systems creator Eron Greenspan met with Zuckerberg at Harvard and invited Zuckerberg to incorporate House System into Facebook, but Zuckerberg declined, he said it was "too useful," according to Greenspan, "it just does to much stuff" Zuckerberg continued, like its almost overwhelming how useful it is." "In contrast, Facebook was almost obsessively minimal," Lesson said. "The only thing you could do immediately was to invite more friends, it was that pureness that drove it." Zuckerberg agreed; "The trick is not adding stuff," he said, "It's taking away. "

   Compared to its competition Facebook focused on creating a relatively simple core transaction, only later once it had optimized its initial transaction – Friending and viewing other peoples profiles, did it begin to add new transactions and new features.

Modern Monopolies By Nicholas L. Johnson and Alex Moazed

I have presented the whole chapter segment from Modern Monopolies because it first reads like this plan is seriously over complex noting the key line that appears near the front of the book; Zuckerberg agreed; "The trick is not adding stuff," he said, "It's taking away.
"

So let me quickly redirect to some 10x simplicity for the user points by starting with one of the major functions S-Web and S-World greatly simplifies, and that is in the CRM. And the massive overcomplexity of any CRM that is for every business type, niche, for all staff, from the newest sales hire to the CEO and is for every product and every activity, but is not linked to the website, so a lot of data needs to be manually input or left out.

In terms of the 8 core functions of S-World Angelwing, it will probably help to understand these systems in the order they were originated. So here we go, the first function was S-World VSN myself and a Javascript programmer created the worlds first Macromedia (Now Adobe) Flash virtual tour, which was the first higher quality tour with reasonable page loading times on the net anywhere in 2002, and by 2004 it had an offer for its was significant and was offered its own channel and I was in discussions with Galleio GDP and The families of Nelson Mandela and his mentor Walter Sisulu about making a global version where one could book online accommodations, cars, yachts, flights, jets...

If only I had made that deal, it would have become what I am describing in S-World VNS today, the amazing thing is that in the 16 years that followed no one has made such a product. So as you can clearly see S-World VSN was the starting point. That's not to say it's the string place today, but it sure is worth making the SimCity/Sims and Stefan Anton Architecture first S-World VSN product because it would not cost much and is very cool, when we start to make potential real-world cities from it.

Following S-World VSN was S-Web, although its potential was not realised until 2009

Technology 1. S-Web

S Web™
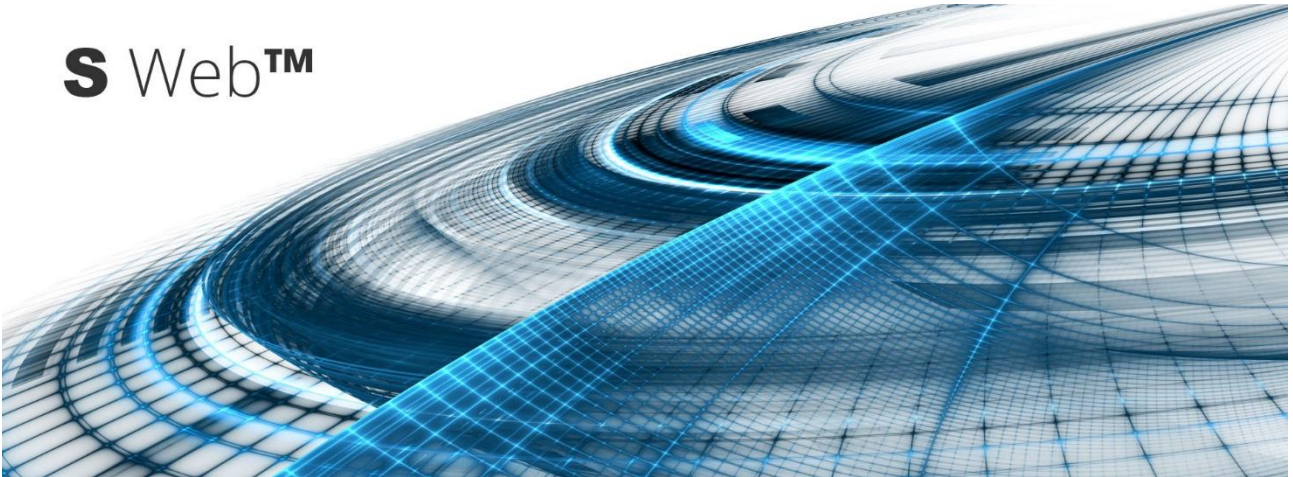
On the macro scale, S-Web can compete with WordPress for the most used system for making websites.

This is not to put WordPress down, it's a great system, we used it and still use it for www.Supereconomics.ai

Please watch this video and I will explain it.

(NRB 1st Nov 2020)
Actually, I still need to make this, I am waiting on the final touches to the system that allows us to treat all the sections (rows) like pieces of a simple jigsaw and reorder them simply as widgets Ask for this S-Web video and I can prioritize it.

Chapter 4 now 5
"As-if "Alternate Histories
(The Sum Over Histories)

"As-**If**"

If memory serves, I first heard of **As-If** from 2017 Nobel winner Richard H. Thaler, who was not a fan but needed to acknowledge **As-If** arguments were valid. Many of the S-World Systems were created in **As-If** this or that system from particle physics, the most obvious is the M-Systems created **as-if** M-Theory could be used to create or improve economic models, and the catchphrase we see on many early graphics **"M-Theory an Economic Science?"** but we need not get into this here.

The most recent **As-If** example relates to the most fundamental property of quantum mechanics, the Quanta. In quantum mechanics and LQG (Loop Quantum Gravity), everything is made in quanta, the smallest possible quanta being Planck's constant which is very small (6.62607004 × 10-34 m2 kg/s). Whilst there is such a large number of quanta in the universe, the idea of quanta is that all could be measured. There is an exact number of quanta today that will be the same tomorrow or in a billion years.

In the following sections from **the Grand Design** by Professors Stephen Hawking and Leonard Mlodinow, we will hear about Alternate Histories (The Feynman Sum Over Path/Histories) and Renormalization. Where renormalization removes the infinities and offers a coherent data set that is used to create accurate predictions.

While I do not understand the mathematics of renormalization at this time, it would clearly be a massive advantage if we could use the renormalization effect to compress the 87 Quintillion Histories. And it may be possible to push the envelope and change the 87 Quintillion histories into 87 quintillion, quintillion or even 87 quintillion, quintillion, quintillion, quintillion.

The advantages are massive if we can renormalise S-World **As-If** it was quantum mechanics. And whilst I am miles away from performing such a calculation, I have reinforced my earlier idea of POP Đimensions, which started at $0.01 cent and multiplied up through cubic dimensions of 8, so $0.001 >$0.08, >$0.64 >$5.12 > $40.960 but changed the POP Đimensions to start at $0.0001 cents, $0.0001 > $0.0008 > $0.0064 > $0.0512 > $0.4096 **As-If** by doing so I am mimicking the quanta in quantum mechanics so that at a later point someone with greater knowledge could perform renormalization.

Sticking with math that is compatible with quantum mechanics, this example may well end off with two completely different systems. One could imagine a system per Quantum Loop Gravity as presented above and another system and another Grand Śpin Network where the fabric of the system was created **As-If** money is analogous to the strings in String Theory.

String Theory Systems
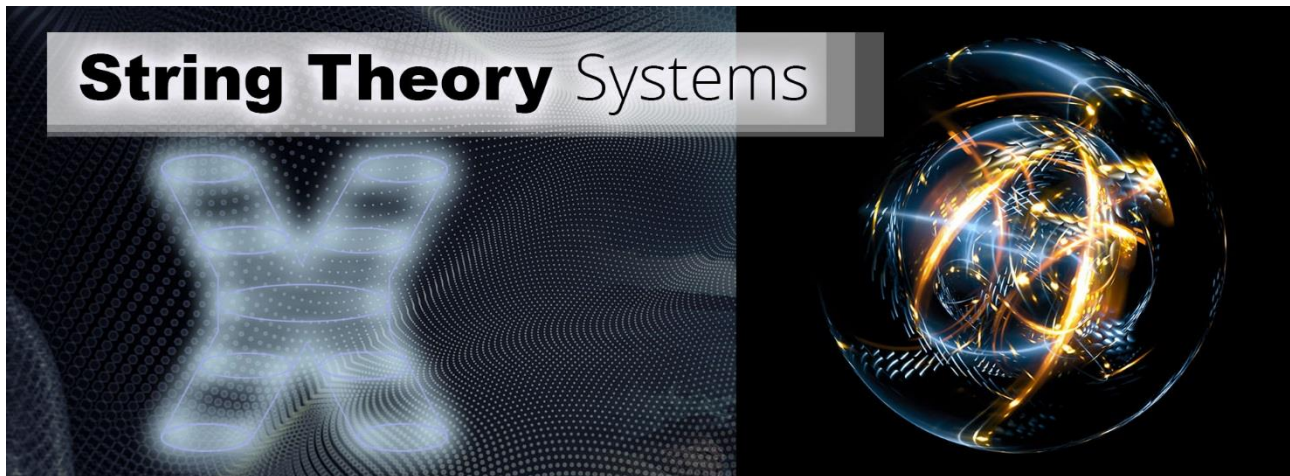
Four M-Systems were inspired by string theory, M-Systems Zero that simply says in Supereconomics money is the String, M-System 3. The Susskind Boost and 4 The Peet, an M-System 9. Super Coupling work **As-If** the network was made from string theory.
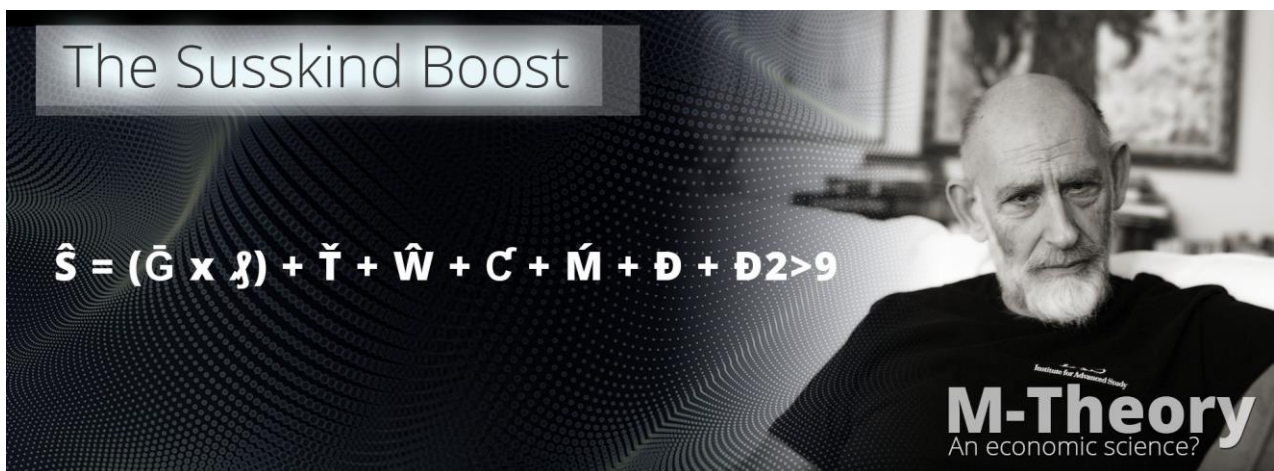
$$\hat{S} = (\bar{G} \times \text{\textsection}) \; \check{T} + \hat{W} + \acute{C} + \acute{M} + (\check{R} + Y) + Đ + Đ2{>}9$$

Where $\bar{G}$ = Gross Profit and the (electric s) $\text{\textsection}$ = is the S-World TBS™ (Total Business Systems), which so far (for Villa Secrets) creates 81 different ways to make money, save money, or avoid landmines, many of which are unique.

Where after, we add different boosting opportunities: $\check{T}$ = Tenders or agency contracts, $\hat{W}$ = Additional web franchise options, $\acute{C}$ = Contracts &/or Mandates, $\acute{M}$ = the Marketing Multiplier,

Then, from M-System 2, we add the dimension 'Đ' representing the $A^{st}{\Leftrightarrow}B^{st}$ which calculates the ripple effects from other businesses in the local network. And after, in Đ2 to Đ9, we

calculate the effects from other companies in the eight continental networks.

Plus, there are newer factors unseen in the above graphic such as Ř = higher ROI advertising opportunities and Y = which accounts for Network Credits being pushed a company's way (which is looking to be a major player and part of the Network Credits' exchange mechanism)

The Ŝ (S-Hat Symbol) we attribute to the Susskind Boost is later seen within the basic version of M-**System 9. Super Coupling**

N x g_s x Ŝ x Ѧ = Ҟ

Where N equals the number of companies, g_s equals the amount of incentivized personnel (equity partners) and an Ѧ is M-System 4. The Peet Tent.

But the point I wish to focus on for now is the Susskind Boost Đ2 to Đ9 values, which create/track/uncover ripple effects between different Grand Networks at the continental level

Đ2 to Đ9 is the macro version of **Ast⇔Bst spread across the 8 continental networks.**
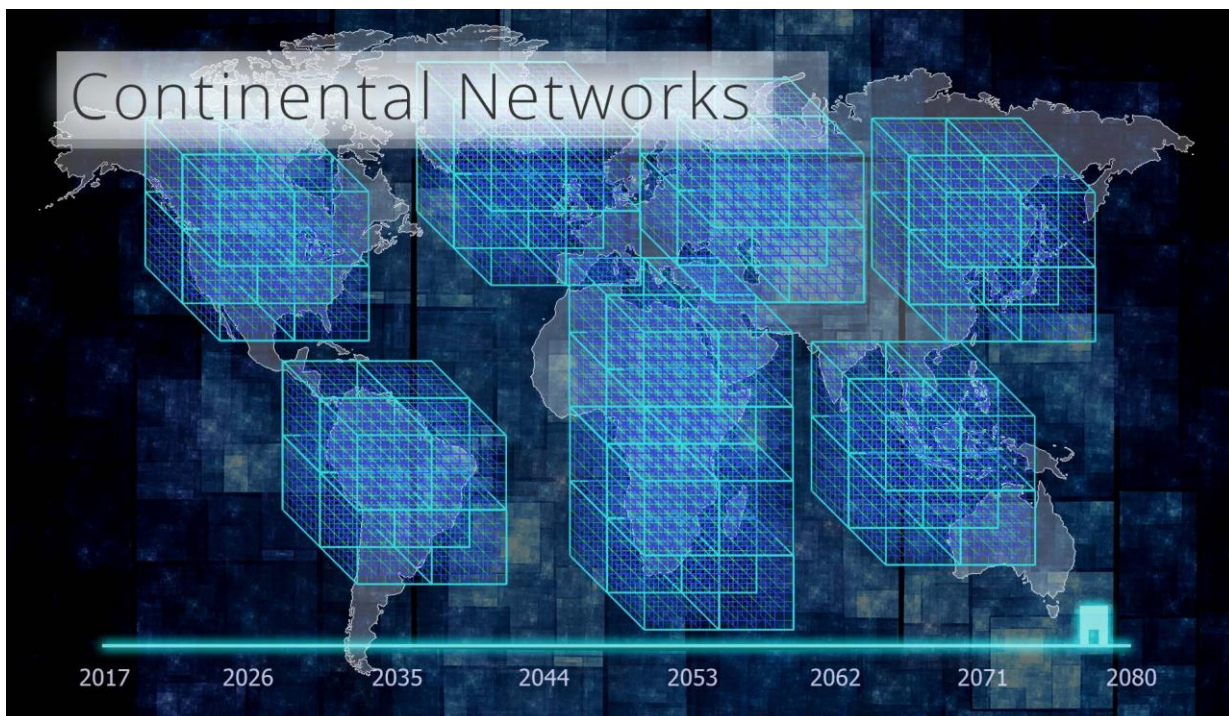
But as we will see later in this chapter Đ2 to Đ9 are Now Đ10 to Đ20
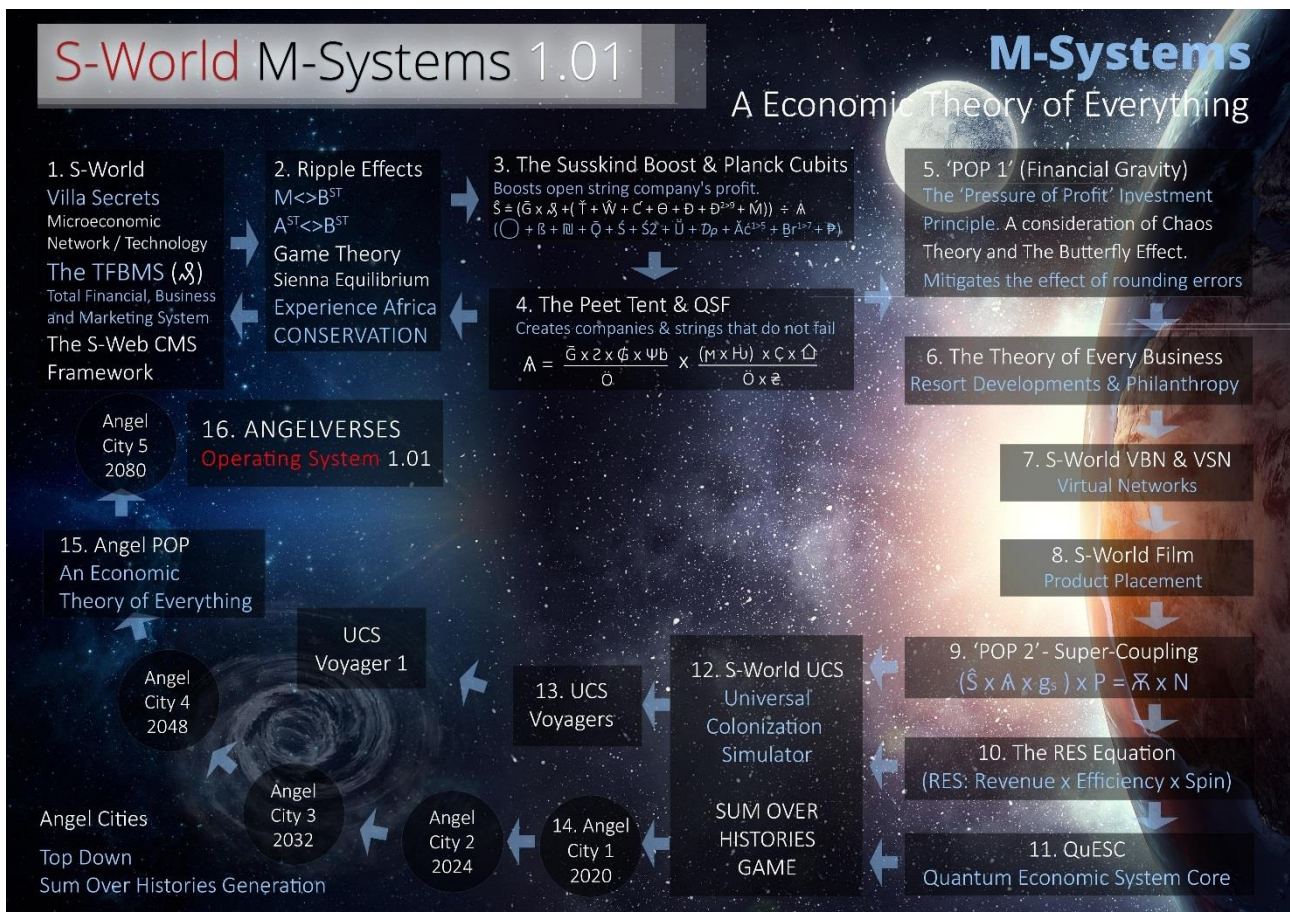
History 3 works **As-If** it could expect to command $28,147,497,671 in investment and Aid by 2024.

The Law of Conservation of Ŕevenue (now Šavings) works **As-If** it was analogous to the Law of Conservation of Energy.

Š-ŔÉŚ™ High-Octane Financial Engineering increases the money supply **as if** the network was like a country's economy where after a year, most of the money spent will belong to most of the people in the country.

POP works **as if** the economy is like Newtonian Gravity

Angel POP works **as if** the economic Newtonian Gravity cannot expand a continental network to a higher financial dimension until all other continental networks have reached the financial dimension limit.

The Grand Design

by Professors **Stephen Hawking** and **Leonard Mlodinow**
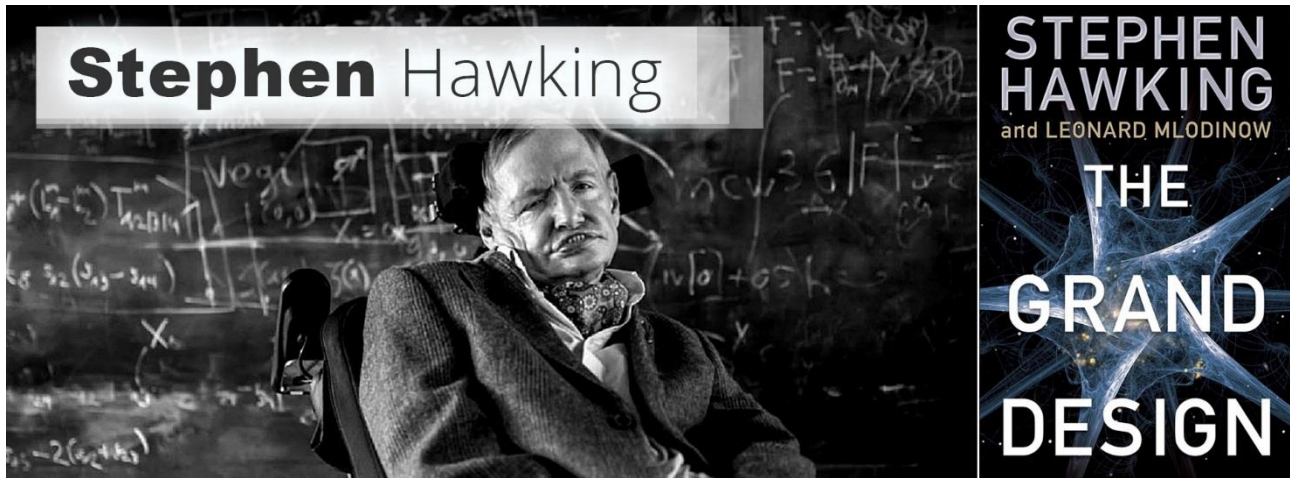
In terms of the 87 quintillion histories, immense credit must be paid to Stephen Hawking and Leonard Mlodinow's book The Grand Design. Chapter 4; **'Alternate Histories'** which had a big impact, and helped me to see Angel City 3 and 4 as the present, Angel Cities 1 and 2 as the past and Angel City 5 as the future, and then physiologically worked that problem to find the schema that is being developed now.

Now I am doing the same but have changed my 'present' date to 2024 and 2025, and the past is back to 2020, and the future is bright.

I am copying this and other sections of **Hawking** and **Mlodinow's** book for a few reasons; the first is homework, summarising assists my learning. The second is so others can see the inspiration behind the 87 quintillion histories. Third and maybe most important is that it may inspire someone else to a eureka idea, maybe in compression, logic or **'As-If'** renormalization.

I have edited the most relevant sections from the Alternative Histories chapter into just a few pages: So here we go with Professor Hawking and Mlodinow's 2010 book 'The Grand Design,' which is in many ways is the plot to the S-World Stories since 2016.

the Grand Design
Chapter 4. **Alternative** Histories

by Professors **Stephen Hawking** and **Leonard Mlodinow**

"The principles of quantum mechanics were developed in the first few decades of the 20th century; after Isaac Newton's macro theories *(which were accurate enough to land a man on the moon)* were found to be inadequate for the description of nature at the

atomic or subatomic level.

As we improved our technology and expanded the range of phenomena that we could observe, we began seeing nature behaving in ways that were less and less in line with our everyday experience and hence with our intuition. Classical theories such as Newton's reflect everyday experience, in which objects have an individual existence, can be located at definite locations, follow definite paths and so on. **Quantum mechanics dictates a completely different schema** (*model, plan, theory*), **in which an object's position, path, and even its past and future are not precisely determined.**

According to quantum mechanics, a particle is said to have no definite position during the time it is between a starting point and the endpoint. Professor Richard Feynman realised one does not have to interpret that particles take no path as they travel, rather particles take every path, and they take them all simultaneously.

The chance of observing a particle to land at any given point then depends upon all the paths/histories that could have got it there. Feynman showed that for a general system, the probability of any observation is constructed from all the possible histories that could have led to that observation. Because of that, his method is called **the Sum Over Histories** or '**Alternative Histories**' formulation of quantum physics.
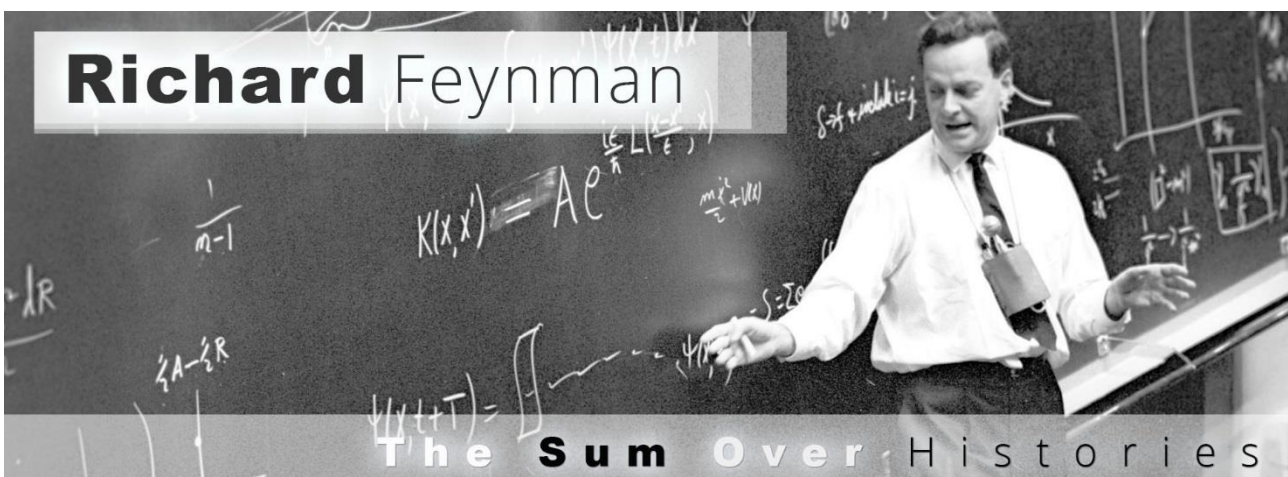
Because of this, instead of looking at just a single particle, **Feynman's theory allows one to predict the probable outcomes of a system,** which could be a particle, a set of particles, or even the entire universe. Between the initial state of a system and our later measurement of its properties, those properties evolve in some way which physicists call the **system's 'history'.**

In Newtonian theory, the past is assumed to exist as a definite series of events, given complete data about the present Newton's Laws allow us to calculate a complete picture of the past. But a quantum particle or system cannot be said to have taken a definite path from A to B. We might pin down its location by observing it. But in between our observation, **it takes all paths and has all histories.**

Quantum physics tells us no matter how thorough our observations of the present, the (unobserved past), like the future, is indefinite and exists only as a spectrum of possibilities.

The universe, according to quantum physics, has no single past or history. The fact that the past takes no definite form, means that observations you make on a system in the present affect its past. We will see that, like a particle, **'the universe does not have just a single history, but every possible history,'** each with its own probability; and our observations of its current state affect its past and determine the different histories of the universe.

   The quantum model of nature and our universe encompasses principles that contradict not only our everyday experience but our intuitive concept of reality.

Those who find those principles weird or difficult to believe are in good company, the company of great physicists such as Einstein and even Feynman, who once wrote 'I think I can safely say that nobody understands quantum mechanics.'

But quantum physics agrees with observation. **It has never failed a test, and it has been tested more than any other theory in Science.**

End of Exert from; The Grand Design – Chapter 4. Alternate Histories
by Professors **Stephen Hawking** and **Leonard Mlodinow**

Nick Ray Ball:

Whilst in exact mathematical terms, I cannot point to any Supereconomic behaviours derived from physics – Looking at areas of theoretical physics has certainly been a way I have progressed in the past, and has led to many '**As-If'** Supereconomic behaviours.

Continuing quotes from; The Grand Design:

Chapter 5. 34.43 – As-If Renormalization

"When the Feynman Diagrams are added up the answer seems to imply that the electron has an infinite mass and charge, this is absurd because we can measure the mass and charge and they are finite.

To deal with these infinities a procedure called renormalization was developed, the process of renormalization involves subtracting quantities that are defined to be infinite and negative in such a way that with careful mathematical accounting the sum of the negative infinite values and the positive infinite values that arise in the theory almost cancel out, leaving a small remainder, the finite observed values of mass and charge.

Renormalization is indeed as it sounds mathematically dubious, one consequence is that the value obtained by this method for the mass and charge of the electron, can be any finite number that has the advantage that physicists may choose the negative infinities in a way that gives the right answer, but the disadvantage that the mass and charge of the electron, therefore, cannot be predicted from the theory. But once we have fixed the mass and charge of the electron in this manner, we can employ QED to make many other very precise predictions which all agree extremely closely with observation. So, Renormalization is one of the essential ingredients of QED."

As If – Mass Renormalization

By Nick Ray Ball 19ᵗʰ October 2019

Re Normalization,

We do not need to make the mathematics of the network work exactly like quantum mechanics to use Renormalization. All we need to do is teach the AI to govern the histories as if it was using renormalization, to remove infinities or in our case places where data is of no use.

Mass **Renormalization**

The theorists realised that the problems with the early version of QED were a result of the electron interaction with its own self-generated electromagnetic field, causing some terms in the equations to mushroom to infinity. As a result of these interactions the electron gathers a covering of virtual particles around itself. These virtual particles have an energy, and as we know from $M=E/C^2$ the mass of such a dressed electron is, therefore, greater than its bare mass, or the mass the election would be expected to possess if it could be separated from its own electromagnetic field. It's impossible to know the bare mass of the electron is, but the equations of QED could now be manipulated to solve the problem.

The theorists discovered that subtracting the equation describing the electron in one physical situation, from the equation describing the electron in a different situation, meant that they could get rid of infinite terms. Subtracting infinity from infinity doesn't seem on the surface to be a very sensible thing to attempt, but it was found that the result was not only finite it was also right.

This sleight of hand is called Mass Renormalization.

Quantum Space

Loop Quantum Gravity
and the Search for the Structure of
Space, Time, and the Universe

By Jim **Baggott**

Systems in Quantum Theory

A physical system manifests itself only by interacting with another. The description of a physical system, then, is always given in relation to another physical system, one with which it interacts. Any description of a system is therefore always a description of the information which a system has about another system, that is to say; the correlation between the two systems.

The description of a system in the end is nothing other than a way of summarizing all the past interactions with it and using them to predict the effect of future interactions.

Consider two simple postulates:

    (1) The relevant information in any physical system is finite.

    (2) You can always obtain new information on a physical system

Because of the first postulate, when we acquire new information about a system; total relevant information cannot grow indefinitely, and part of the previous information becomes irrelevant, that is to say, it no longer has any effect upon predictions of the future.

The entire formal structure of quantum mechanics follows in large measure from these two simple postulates; therefore, the theory lends itself in a surprising way to being expressed in terms of information.

Reality Is Not What It Seems
The Journey to Quantum Gravity

By Carlo **Rovelli**

A Good Model
FROM – THE GRAND DESIGN

By Professor Stephen Hawking & Leonard Mlodinow
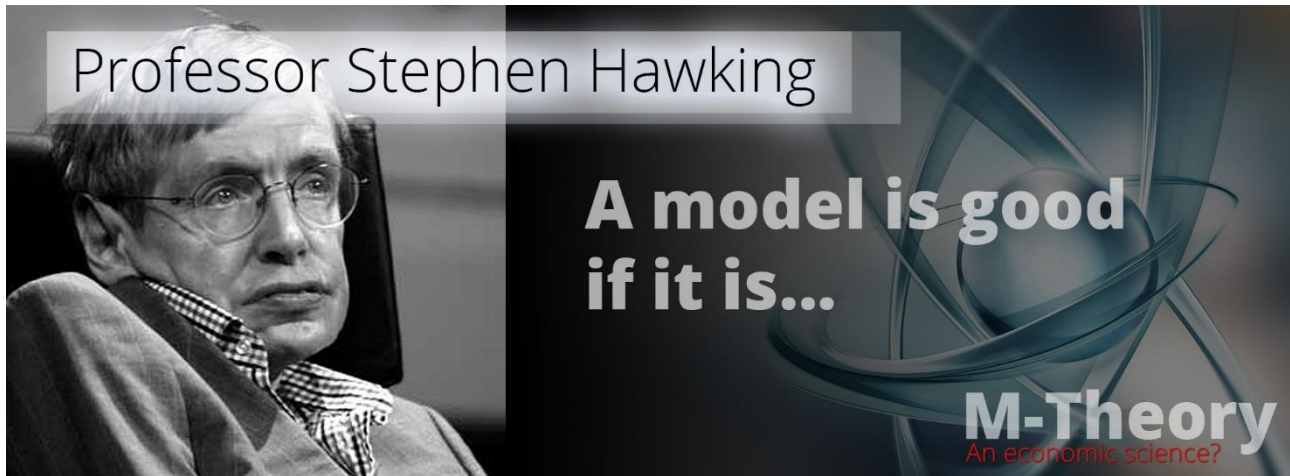
"A model is a good model if it:

1. Is Elegant

   Elegance is not something easily measured, but it is highly prized amongst scientist because laws of nature are meant to economically compress a number of particular cases into one simple formula.

   Elegance refers to the form of a theory, but it is closely related to a lack of adjustable elements since a theory jammed with fudge factors is not very elegant. To paraphrase Einstein, **'a theory should be as simple as possible, but not simpler.'**

2. Contains few arbitrary or adjustable elements
3. Agrees with and **explains all existing observations**
4. **Makes detailed predictions** about future observations that can disprove or falsify the model if they are not borne out."

From The Grand Design by Professors **Stephen Hawking** and **Leonard Mlodinow**

Hawking's Good Model and **S-World Angelwing**

1. To be elegant, or not?

Within S-World Angelwing there are some elegant, even beautiful systems. For example, the A<>Bst, and the POP family; POP the POP Train and Angel POP. However, after reading Danny Rodrik's Straight Talk on Trade and realizing that some elegant models (such as the efficient market hypothesis in economics) can be dangerous and need complexity added to stop them from flying or falling apart. Thus, we need to allow inelegant complexity in our systems.

For the specifics of the complexity within Supereconomics book 1. S-World AngelWing - THE WHAT, I have presented Hawking and Mlodinow on M-theory - a network of interlinked theories that do not present a complete universal map; rather, have different solutions for different areas within the landscape. Working in this way, we can further improve and broaden S-World Angelwing's economic design.

I consider that there may well be some underlying elegant theory, in both theoretical physics and economics, that we are yet to find. But until we find it, we can use Chaos methods (POP), M-theory (M-Systems), Quantum Mechanics, Relativity and the Rodrik theory of choosing the best theory to fit the circumstance in economics, seeking to build an economic map where all economic theories have their place.

In conclusion, whilst elegance is desired, we do not need to seek to make a purely elegant model; and, currently, we are free to use whatever system or theory that seems appropriate for each circumstance.

With this said, in the S-World Grand Network's market economy, S-World Angelwing evaluates Special Project internalities; then the internalities of all Grand Network companies, then the externalities, and makes decisions; such as the price of goods above or below the margin, that creates the best overall picture that **follows the paths described in 87 Quintillion Histories.**

2. Contains few arbitrary or adjustable elements and a lack of adjustable parameters

Currently, we are only using POP, ŔÉŚ, the Peet Tent, Susskind Boost and Net-Zero DCA as laws. There can, of course, be millions of different applications, like nature has only 4 fundamental laws (gravity, electromagnetism, the strong and weak nuclear forces) and many wonderful animals, trees, flowers and bees; and computers have only a few OS's and millions of apps and billions of websites to look at.

But so far in S-World, all applications and environments are fundamentally a part of the four laws; POP, ŔÉŚ, the Peet Tent and Susskind Boost which is turned into strategy by Net-Zero DCA.

From these 5 laws come a host of 'big in their own right' applications, that have reached what Paul Romer describes as a combinatorial explosion in economics (If Š-ŔÉŚ™ holds).

3. Agrees with and explains all existing observations

When it comes to the differences in opinion on what is the correct economic theory, there are many. The (As-If) M-theory design of S-World Angelwing allows for a map of many economic theories, some agreeing, some not, and then it throws them forwards and back from 2024 to 2080 about 87 quintillion times. That's 87,714,630,433,327,500,000 separate simulations or (as I say) histories, and each history has a billion points that can record an action, to assist S-World Net-Zero DCA strategies.

If we can As-If reverse engineer QCD renormalization into the system, which is now looking more feasible thanks to ideas from quantum loop gravity and calculus. The idea from calculus being the splitting of the problem of the world economy into many separate S-World business, then as long as this foundation is solid, the house will stand. And newest from quantum theory is the quantization of Network Credits. (the money in the network)

In as much as explaining all existing observations, we have 87,714,630,433,327,500,000 simulations/observations/histories to choose from, indeed the choice of future paths and histories now becomes the most important job in S-World. A Job for M-System 11. QuESC

4. Makes detailed predictions about future observations that can disprove or falsify the model if they are not borne out."

This point created the idea for the 87 quintillion histories idea (from the now to 2080) we will shine a light on the future and help us fulfil Asimov's quest.
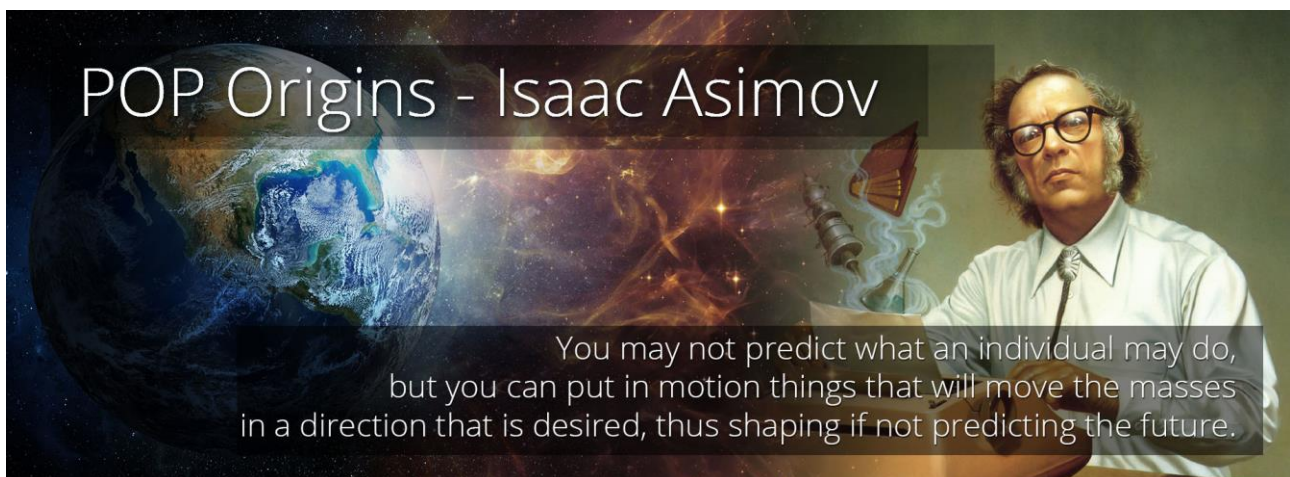
POP Origins - Isaac Asimov

You may not predict what an individual may do, but you can put in motion things that will move the masses in a direction that is desired, thus shaping if not predicting the future.

"You may not predict what an individual may do, but you can put in motion things that will move the masses in a direction that is desired, thus shaping if not predicting the future." - Isaac Asimov

S-World *Villa Secrets*

Scenario 8 – Specialize and Scale

I'm now going to mentally go through all the accounting actions assigning more computer actions than are necessary. Starting with personnel which is 25% of cash flow, how many actions should we assign to each member of personnel? Remembering that because of recycle-Éfficiency we need to account for all Network Credits transactions. Ideally from a behavioural science perspective, we would want to analyse millions of actions.

Time to return to a spreadsheet tab I started on this called 'Simulation Events' in which I gave 32 members of personnel 858,993 simulation events a day, which is 39 million Simulation Events per year, which seems more than adequate.

But first, let's look at how many Simulation Events we can have per day from a computer 1000 times less powerful than the Supercomputer that created the 87 quintillion histories.

In making the following spreadsheet tab, 'Simulation Events' I confirmed my suspicion that we are going to need to find commission techniques, hence the name of the chapter 'Beyond – 87 Quintillion Histories.'

SIMULATION **Events**

Below we see a quick spreadsheet from tab; Simulation Events. In which I drill down to a day, and divided calculations by 1000 assuming a less powerful computer in phase 1

Supercomputer		
Calculations per day		
17,280,000,000,000,000,000,000		
	1000	Times Less Power
Powerful Computer		
Calculations per day		
	17,280,000,000,000,000,000	Simulation Events left
Number of Companies	4096	
	4,218,750,000,000,000	Simulation Events left
People in a company	32	
	131,835,937,500,000	Simulation Events left
Simulation Events Per Person	13,422	Per Day
	9,822,542,779	Simulation Events left
Simulation Events Per Company	107,374	
	91,480	Simulation Events left
Display		
Supply & Demand	64	
Profit & Loss	64	
EEE Points	64	
Carbon Traffic Lights	128	
EEE Demerits	128	
Special Projects	512	
Internalities	512	
Externalities	512	
Sales & Acquisitions	129	
POP	64	
Month End	64	
Other	512	
	2753	Displays
	33	Simulation Events left
Calculate		
All Supply versus All Demand	?	
All Other versus Other	?	
Optimize for EEE Points	?	
Optimize for Other	?	
Adjust for an extra:	12.50%	of Cash Flow to variable
Adjust for an extra:	12.50%	of ??? assigned to var

Starting with 17,280,000,000,000,000,000 computer calculations in a day I divide by the 4096 companies in 2025, then divide by an average of 32 people per company, then computer calculations per person at 13,422 (this could be the number of moves allowed in a day) and could be increased via the processor in the computer of the user (note I really want a million

here), then 107,374 Simulation Events Per Company leaving 91,480 Simulation Events of which 2753 are used to display key data points in the board. Where after we start to get into some potentially hard engineering and the Optimize and Adjustment functions, and here we run out of processing power.

Before we can optimize, (which is no mean feat), we need to either increase power, decrease previously set benchmarks, lowering 13,422 calculations per person or the 107,374 Simulation Events Per Company. Or we can start to go beyond 87 quintillion histories. We shall soon hear from Stephen Hawking and Leonard Mlodinow about renormalisation, but first, consider that within each company there will be a lot of none-events, and even more small events that besides the chaos theory don't make a noticeable difference, or whole ancestry's of events that the humans at QuESC, Elite Gamers in the MMO game and everyone else via the MMO game if it becomes globally popular.

Idea!!!

I think it may be a good idea for us to consider companies as particles.
And we apply Supersymmetry to them by giving each company a Superpartner, which would be heavier, it would have a larger POP point, for example, a company in a higher Đimension (see tab; 'POP Đimensions'). So, if the particle/company has cash flow of $3,435,973.84 (Đ12 x 4), then its Superpartner has $27,487,790.69 in cash flow, or up two POP Đimensions for a cash flow of $219,902,325.56. Or we could do the same for POP points, not cash flow or use other metrics.

By creating a Superpartner, we are forcing ourselves to consider the future paths that lead particle/company 'a' into the Network of Superpartner 'a'. Maybe the Superpartner can also connect to another 63 companies, and a craft of the system was to choose the right Superpartner for the different companies, out of a pool of 4096. The Superpartner may not be the company itself, not a holding company at all, it can be just pieces of the fabric/framework of the network.

Chapter 5
You are not a Lottery Ticket

CAN YOU CONTROL YOUR FUTURE?

From Zero to One by Peter Thiel with Blake Masters

You can expect the future to take a definite form or you can treat it as hazily uncertain. If you treat the future as something definite, it makes sense to understand it in advance and to work to shape it. But if you expect an indefinite future ruled by randomness, you'll give up on trying to master it.

Indefinite attitudes to the future explain what's most dysfunctional in our world today. Process trumps substance: when people lack concrete plans to carry out, they use formal rules to assemble a portfolio of various options. This describes Americans today. In middle school, we're encouraged to start hoarding "extracurricular activities." In high school, ambitious students compete even harder to appear omnicompetent. By the time a student gets to college, he's spent a decade curating a bewilderingly diverse résumé to prepare for a completely unknowable future. Come what may, he's ready—for nothing in particular.

You can also expect the future to be either better or worse than the present. Optimists welcome the future; pessimists fear it. Combining these possibilities yields four views:

Indefinite Pessimism

Every culture has a myth of decline from some golden age, and almost all peoples throughout history have been pessimists. Even today pessimism still dominates huge parts of the world. An indefinite pessimist looks out onto a bleak future, but he has no idea what to do about it. This describes Europe since the early 1970s when the continent succumbed to undirected bureaucratic drift. Europeans just react to events as they happen and hope things don't get worse. The indefinite pessimist can't know whether the inevitable decline will be fast or slow, catastrophic or gradual. All he can do is wait for it to happen.

Definite Pessimism

A definite pessimist believes the future can be known, but since it will be bleak, he must prepare for it. **Perhaps surprisingly, China is probably the most definitely pessimistic place in the world today.** When Americans see the Chinese economy grow ferociously fast (10% per year since 2000), we imagine a confident country mastering its future. But that's because Americans are still optimists, and we project our optimism onto China. From China's viewpoint, economic growth cannot come fast enough. Every other country is afraid that China is going to take over the world; China is the only country afraid that it won't.

China can grow so fast only because its starting base is so low. The easiest way for China to grow is to relentlessly copy what has already worked in the West. **And that's exactly what it's doing: executing definite plans by burning ever more coal to build ever more factories and skyscrapers**.

Definite Optimism

To a definite optimist, the future will be better than the present if he plans and works to make it better. From the 17th century through the 1950s and '60s, definite optimists led the Western world. Scientists, engineers, doctors, and businessmen made the world richer, healthier, and more long-lived than previously imaginable. As Karl Marx and Friedrich Engels saw clearly, **the 19th-century business class created more massive and more colossal productive forces than all preceding generations together.** Subjection of Nature's forces to man, machinery, application of chemistry to industry and agriculture, steam-navigation, railways, electric telegraphs, clearing of whole continents for cultivation, canalisation of rivers, whole populations conjured out of the ground—what earlier century had even a presentiment that such productive forces slumbered in the lap of social labor?

Each generation's inventors and visionaries surpassed their predecessors. In 1843, the London public was invited to make its first crossing underneath the River Thames by a newly dug tunnel. In 1869, the Suez Canal saved Eurasian shipping traffic from rounding the Cape of Good Hope. In 1914 the Panama Canal cut short the route from Atlantic to Pacific. **Even the Great Depression failed to impede relentless progress in the United States, which has always been home to the world's most farseeing definite optimists.** The Empire State Building was started in 1929 and finished in 1931. The Golden Gate Bridge was started in 1933 and completed in 1937. The Manhattan Project was started in 1941 and had already produced the world's first nuclear bomb by 1945. Definite planning even went beyond the surface of this planet: NASA's Apollo Program began in 1961 and put 12 men on the moon before it finished in 1972.

Bold plans were not reserved just for political leaders or government scientists. **In the late 1940s, a Californian named John Reber set out to reinvent the physical geography of the whole San Francisco Bay Area.** Reber was a schoolteacher, an amateur theater producer, and a self-taught engineer. Undaunted by his lack of credentials, he publicly proposed to build two huge dams in the Bay, construct massive freshwater lakes for drinking water and irrigation, and reclaim 20,000 acres of land for development. Even though he had no personal authority, people took the Reber Plan seriously. It was endorsed by newspaper editorial boards across California. The U.S. Congress held hearings on its feasibility. The Army Corps of Engineers even constructed a 1.5-acre scale model of the Bay in a cavernous Sausalito warehouse to simulate it. These tests revealed technical shortcomings, so the plan wasn't executed.

But would anybody today take such a vision seriously in the first place? **In the 1950s, people welcomed big plans and asked whether they would work. Today a grand plan coming from a schoolteacher would be dismissed as crankery, and a long-range vision coming from anyone more powerful would be derided as hubris.** You can still visit the Bay Model in that Sausalito warehouse, but today it's just a tourist attraction: big plans for the future have become archaic curiosities.

In the 1950s, Americans thought big plans for the future were too important to be left to experts.

Indefinite Optimism

After a brief pessimistic phase in the 1970s, indefinite optimism has dominated American thinking ever since 1982, when a long bull market began and finance eclipsed engineering as the way to approach the future. **To an indefinite optimist, the future will be better, but he doesn't know how exactly, so he won't make any specific plans. He expects to profit from the future but sees no reason to design it concretely.**

OUR INDEFINITELY OPTIMISTIC WORLD

Indefinite Finance

While a definitely optimistic future would need engineers to design underwater cities and settlements in space, an indefinitely optimistic future calls for more bankers and lawyers. Finance epitomizes indefinite thinking because it's the only way to make money when you have no idea how to create wealth.

The indefiniteness of finance can be bizarre. Think about what happens when successful entrepreneurs sell their company. What do they do with the money? In a financialized world, it unfolds like this:

- The founders don't know what to do with it, so they give it to a large bank.
- The bankers don't know what to do with it, so they diversify by spreading it across a portfolio of institutional investors.
- Institutional investors don't know what to do with their managed capital, so they diversify by amassing a portfolio of stocks.
- Companies try to increase their share price by generating free cash flows. If they do, they issue dividends or buy back shares and the cycle repeats.

At no point does anyone in the chain know what to do with money in the real economy. But in an indefinite world, people actually prefer unlimited optionality; money is more valuable than anything you could possibly do with it. **Only in a definite future is money a means to an end, not the end itself.**

Indefinite Politics

Politicians are more fascinated today by statistical predictions of what the country will be thinking in a few weeks' time than by visionary predictions of what the country will look like 10 or 20 years from now.

And it's not just the electoral process—the very character of government has become indefinite, too. The government used to be able to coordinate complex solutions to problems like atomic weaponry and lunar exploration. But today, after 40 years of indefinite creep, *the government mainly just provides insurance; our solutions to big problems are Medicare, Social Security, and a dizzying array of other transfer payment programs.* It's no surprise that entitlement spending has eclipsed discretionary spending every year since 1975. To increase discretionary spending, we'd need definite plans to solve specific problems. But according to

the indefinite logic of entitlement spending, we can make things better just by sending out more checks.

Indefinite Philosophy

IS INDEFINITE OPTIMISM EVEN POSSIBLE?

What kind of future will our indefinitely optimistic decisions bring about? If American households were saving, at least they could expect to have money to spend later. And if American companies were investing, they could expect to reap the rewards of new wealth in the future. ***But U.S. households are saving almost nothing.*** **And U.S. companies are letting cash pile up on their balance sheets without investing in new projects because they don't have any concrete plans for the future.**

The other three views of the future can work**. Definite optimism works when you build the future you envision.** Definite pessimism works by building what can be copied without expecting anything new. Indefinite pessimism works because it's self-fulfilling: if you're a slacker with low expectations, they'll probably be met. But indefinite optimism seems inherently unsustainable: how can the future get better if no one plans for it?

Actually, most everybody in the modern world has already heard an answer to this question: **progress without planning is what we call "evolution."** Darwin himself wrote that life tends to "progress" without anybody intending it. Every living thing is just a random iteration on some other organism, and the best iterations win.

Darwin's theory explains the origin of trilobites and dinosaurs, but can it be extended to domains that are far removed? Just as Newtonian physics can't explain black holes or the Big Bang, it's not clear that Darwinian biology should explain how to build a better society or how to create a new business out of nothing. Yet in recent years Darwinian (or pseudo-Darwinian) metaphors have become common in business. Journalists analogize literal survival in competitive ecosystems to corporate survival in competitive markets. Hence all the headlines like "Digital Darwinism," "Dotcom Darwinism," and "Survival of the Clickiest."

A company is the strangest place of all for an indefinite optimist: **why should you expect your own business to succeed without a plan to make it happen?**

Darwinism may be a fine theory in other contexts, but in startups, intelligent design works best.

THE RETURN OF DESIGN

What would it mean to prioritize design over chance? Today, "good design" is an aesthetic imperative, and everybody from slackers to yuppies carefully "curates" their outward appearance. **It's true that every great entrepreneur is first and foremost a designer.** Anyone who has held an iDevice or a smoothly machined MacBook has felt the result of Steve Jobs's obsession with visual and experiential perfection. But the most important lesson to learn from Jobs has nothing to do with aesthetics. The greatest thing Jobs designed was his business. Apple imagined and executed definite multi-year plans to create new products and distribute them effectively. **Forget "minimum viable products"—ever since he started Apple in 1976, Jobs saw that you can change the world through careful planning,** not by listening to focus group feedback or copying others' successes.

Long-term planning is often undervalued by our indefinite short-term world. We have to find our way back to a definite future, and the Western world needs nothing short of a cultural revolution to do it.

Chapter 6
The Sienna Equilibrium

Pareto Efficiency
THE SIENNA EQUILIBRIUM

"Pareto efficiency or Pareto optimality is a state of allocation of resources from which it is impossible to reallocate so as to make any one individual or preference criterion better off without making at least one individual or preference criterion worse off."

The Pareto efficiency is the closest concept in Economics to The Sienna Equilibrium. We need to program the system to find different Pareto efficiency under various conditions, such as when Carbon is not allowed, or when a specific special project benefits. For different values of Šavings, Ŕevenue, recycle Éfficiency and Śpin, and for all sorts of goals or tests.

For Bill AND MELINDA Gates

In 2017 we had the Networks flying back and forwards from 2020 to 2080 on strings, (which are not defined.) And I remember at the time thinking we would not be able to plot this, for quite some time and maybe only as it happens. The idea was to create many strings that could lead to an accurate history and each business had many strings, no definite paths at all. And we needed to change many values for many companies each time a possible history broke down.

Skip two years and we now have a very precise plan (relative to what we had before) using 87 Quintillion Histories. Now we see the idea – we make our ideal future, starting now with the special projects and simulate backwards and forwards creating new paths and adjusting all futures and all paths when the data tells us to. Now we skip forward a couple of years to 2024 and S-World Malawi Śpin Network History 2, of which several videos were made, of which my favourite is the unscripted video 25 www.angeltheory/video/25

In this video, we see that if we can use the Š-ŔÉŚ™ equation as prescribed, the Grand Śpin Network has amazing resilience against recessions and depression, and we see that after the 1% of global GDP target was reached, my first and correct action was not to further increase the share of GDP, rather to flatline in a comfort zone for all concerned.

The problem with History 2 was that it contained some unnecessary variables, and that would cause distraction from the magic of Š-ŔÉŚ™ Financial Engineering. The biggest such variable was trade, and the second was that History 2 described 16 different Network Cities, one each year, which lowered demand to the point where I could not be certain of supply. So, on History 3 I played it safe, starting at Śpin 1 and then increase one Śpin one per year up to 32 spins.

In place of the buoyant trade, History 3 has almost no trade, just a token one million dollars in each of the 5 trade categories, and only increasing by the Malawi Growth (set at 5% per year). And In place of 16 Network Cities starting one per year I stuck with 3 Network Cities in 2024, 2032 and

2048. Which are additions to Angel City 1 which is similar but not the same as a Network City as there can be only 5 Angel Cities, anywhere, and were hoping Angel City 4 in 2048 will be on MARS.

Now that we have an idea of what is involved in making a history, we need to turn the process into software that the AI can use to make trillions of variations on the same theme. Some with 3 Network Cities some with 33, some with cashflow starting at $5 billion some starting at $50 billion, and many variations of Šavings, Ŕevenue, Éfficiency and Śpin, some are ranging from 2024 to 2080 and many just focusing on a single year, or Śpin segment of a year.

The Net Zero DCA software will dig into the individual company histories, so we have a history for our prototype building supply company TWF (The Window Factory) where all is fine, but another history where a vital piece of raw or processed material, maybe the glass does not arrive on time. A two-month wait for glass will send supply shocks right across the network as all cashflow is relative to Spinning and where we find delays, we must woman-up, sound the action stations and it's into the QuESC Battlestar war room where experts in math, economics, software, physics, behavioural science and other disciplines work alongside coders and pro-gamers across the word assisted by the AIs and previously created scenarios (histories), together creating a new stable path.

QuESC – The Quantum Economic Systems Core is the combination of humans and AI. Humans creating the uncertainly and individualism at the core of the systems.
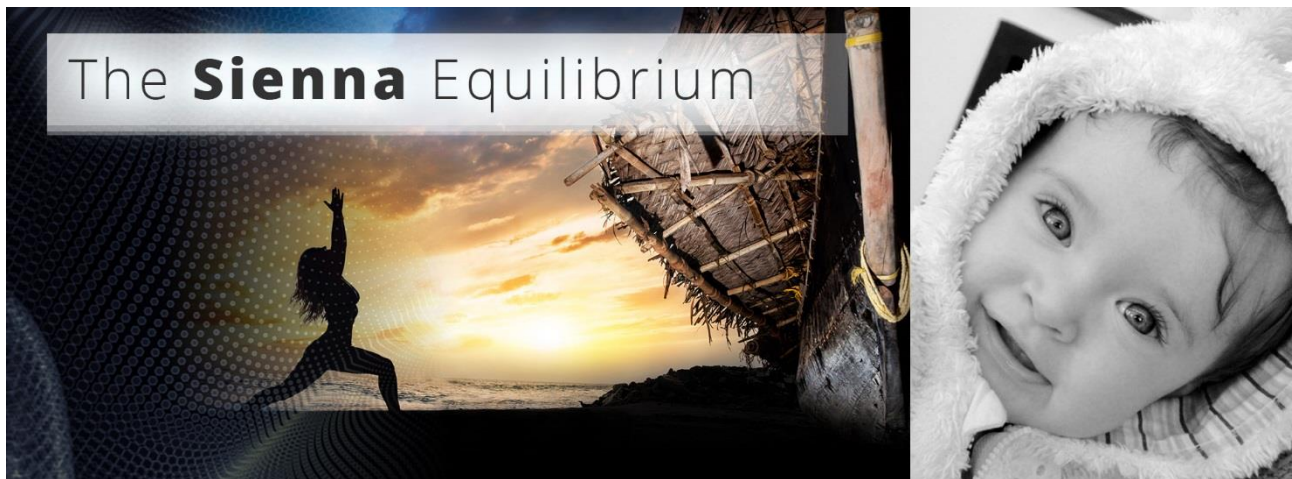
The Sienna Equilibrium

The sienna Equilibrium has developed in the writing of this chapter, to now include the Pareto efficiency, and to optimise for Net-Zero Basic, and to be aware of the different combinations for the start-up that produce different optimizations, such as Special Projects (or a special projects) or cash flow, or internalises or…

Of course, a strategy that optimizes for all attributes is a way to go, and probably a good starting move, from which one can build a Sienna Equilibrium where all companies trade with each other and maximize the common good.

Chapter 20.

The Sienna Equilibrium

The Sienna Equilibrium is the notion that within a Grand Śpin Network if one has enough different types of business, that one can collectively buy and sell from each other providing all that people, and business needs from within the network.

In this short chapter, we are going to

1. look at the two Sienna Equilibrium spreadsheets (1.06 and 1.07)
2. Look at RES V1
3. Hear from Nobel Laureate Paul Krugman about supply and demand

But before we do, I will repeat the page from chapter 5. THE HOW – Š-ŔÉŚ™ Financial Engineering

É - The recycle-Éfficiency process explained

The way we recycle money in a Network City is to create a network of business that

mostly buy from each other. When É is at 90%, then the network of businesses is spending 90% of their cash flow with other network companies.

This requires the Sienna Equilibrium, Tax Symmetry, Spartan Contracts, and the S-World Angelwing software to facilitate.

The Paul Samuelson Plumbing Pipes Image and the Sienna Equilibrium

Whilst I worry about showing the Samuelson graphic for all that is missing, it does help to illustrate the core principle behind how the Sienna Equilibrium works.
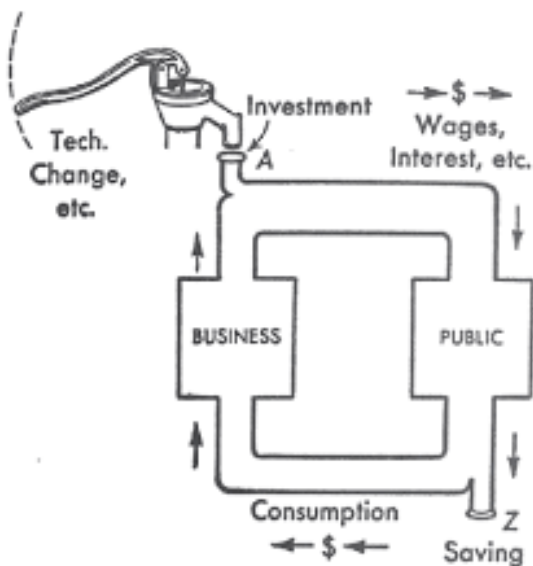
The Sienna Equilibrium considers thousands of businesses within a digital network, which have a balance of trade so that each is buying from each other; in many cases, in the form of Ťenders (tenders), coordinated by the Angelwing software, plus government and labour's spending of Network Credits. As a result, we can attain a recycle-Éfficiency of 90%, then increase 1% year by year to 95%, and in later years 99%, at which point in most businesses, the government, investors, and labour are all almost exclusively buying from each other. (Not Standard Gov taxes, just the amount due from the S-World)

In terms of economic theory, consider the following from 'Economics for the Common Good' by 2014 Nobel Prize winner [Jean Tirole](#).

"A famous experiment conducted by Vernon Smith (who won his Nobel in 2002) in which he analysed markets. The details make some difference, but the classic result obtained by Smith was that **prices and quantities exchanged do indeed converge toward the theoretical competitive equilibrium when there are enough buyers and sellers.**"

The Sienna Equilibrium
and Music Theory

As any good DJ will tell you, to play a perfect set one must keep each song in tune with the other.

If you have good pitch, you can tell just by listing if the mix is out of tune. But if you don't have good pitch you need to math it. Each song had about 5 notes/pitches that it can follow to get to the next song, we have 8 notes; a, b, c, d, e, f, & g and each can be in major or minor, and then we have sharps and flats, in total about 31 recognized pitch options.

Only a one in six chance of getting it right? Well technically yet, but there is quite a middle ground where pitch gets cancelled (like interference in quantum mechanics).

So, for example, if I start in G major, I can choose any of the following:

G major	E minor	D major	G minor	B minor	C major

If I, then have a song in E minor I can mix it.

E minor	G major	B minor	E major	A minor

Then I may choose B Minor

B minor	D major	F♯ minor	B major	E minor	C♭ major?

And then I can access the sharps and flats via Minor

F♯ minor	A major	C♯ minor	F♯ major		G♭ major

And one carries on, one can get back to G major or go anywhere so long as you have enough songs. But with a limited amount of songs, one can't get to every note.

I have added the full spreadsheet on the tab; H3) Complimentary Keys 1, and below the key options is the navigation for a mixtape I'm making. I hope to make this into a DJ game for PlayStation and Xbox. See the Beat Offset (I:41) that plus the above key navigation system, and of course the songs, and anyone can be a DJ.

I believe that we might see a similar system in the Sienna Equilibrium. Whereby connecting businesses in the correct order will create a circular network economy, enabling us to potentially see 100% of cash flow applied to Special Projects and net-zero business activity.

Like with the pitch example above, if you have another business you can create a circular system.

Below we some more music theory, from American Butterfly 2012, where we see how to make a song, using standard song format and Cubase music software. Note that it's all in sets of 8. For more on this http://www.angeltheory.org/book/2-2/the-flap-of-a-butterflys-wings
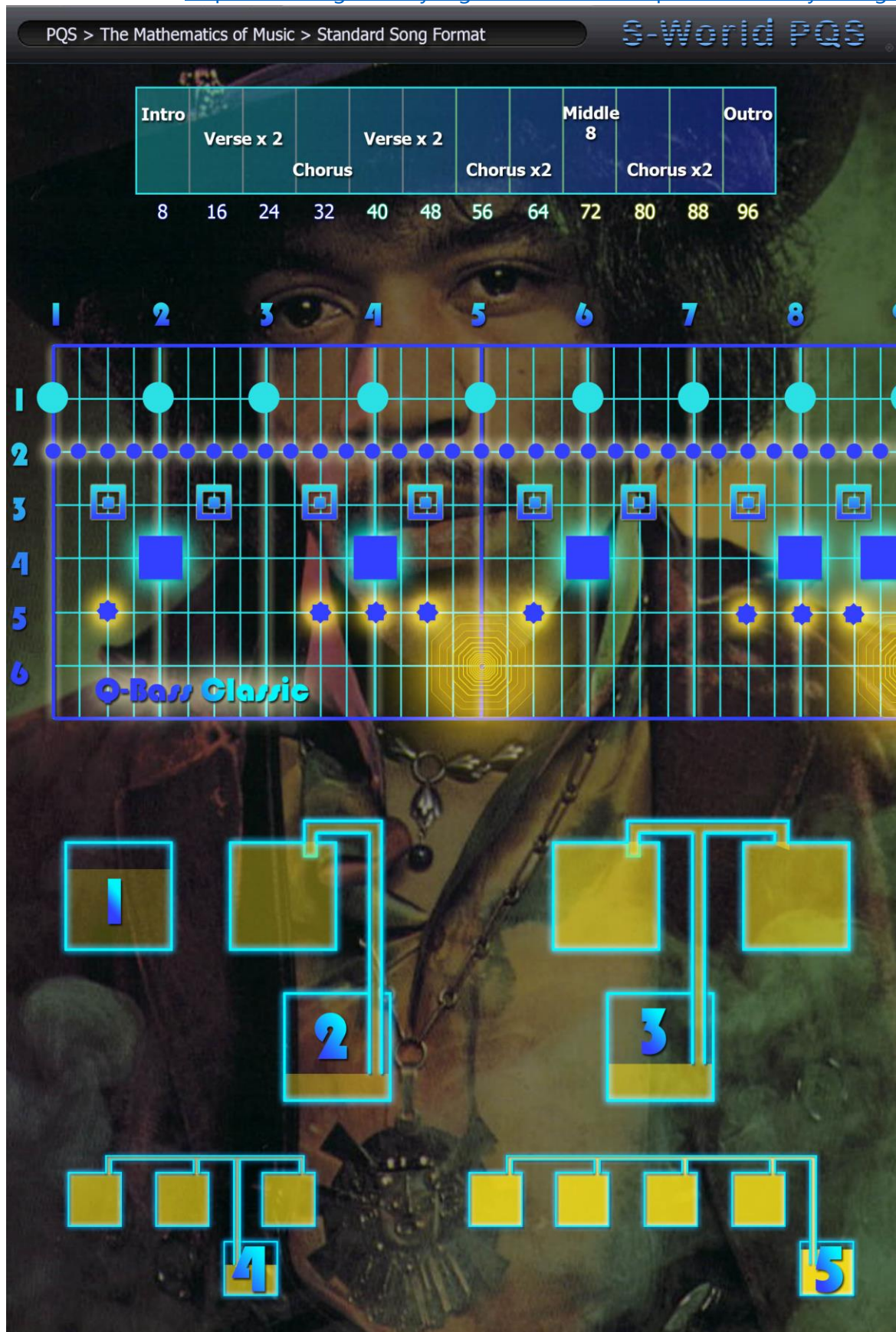
The Sienna Equilibrium 1.06 & 1.07

On the S-World spreadsheet, please move to section 6: The Sienna Equilibrium, and open the spreadsheet tab The Sienna Equilibrium 1.06

(The S-World spreadsheet, evolved from the spreadsheet: Angel Theory Spreadsheet – Lake Malawi ŔÉŚ V2.0 – 2024 to 2039 – Cautious Estimate – 1.32 (1st April 2018). Which includes all the spreadsheets from 2024 to 2039 that make up the ŔÉŚ v1&2 History 2023 to 2039)

The Sienna Equilibrium 1.06
(Note this sheet is from 2006 or 2007 and is not up to date in terms of most allocations)

In the first part of the spreadsheet, we see 16 industry sectors in columns F and G, each of which shares in $2,748,779,069 of cash flow, which is divided into 128 quanta, which in column H is then allocated to the different industries. The quanta per sector are then multiplied by 80 which creates the staff complement in column J. (Below we see columns F and G)

16 INDUSTRY SECTORS (1) AND QUANTA

Property Developer & Labour	20
Building Supplies (Manufactured)	8
Interiors / Shop Fitting / Kitchens / Bathrooms	4
Electronics / Computers	16
Financial Services	4
Tesla Africa & Other Transport	7
Education / University / Operations Centre	5
Industry (Chemicals, Engineering, Other)	4
Packaging / Warehousing / Waist	3
Food, Agriculture & Water	11

Pharmaceuticals & Healthcare	6
General Goods (Malls & Stores) & Eating Out	6
Film, Luxury's, Concierge & Brand Malawi	6
Media / Internet / News / TV / Sport / Ads	4
Travel, Real Estate & Vacation Rentals	8
TBS™	VSN™	UCS™	Ŝ	Ⱥ (Soft. & Edu.)	16

Going down the spreadsheet we see 16 more 16 industry sectors and another $2,748,779,069 of cash flow

16 INDUSTRY SECTORS (2) AND QUANTA

SURH's (Super University Research Hospitals)	6
Internet, Solar Arrays & Installation	16
Environmental, Lakes, Hills, Forests & Safaris	8
Building Industry / Factories / Machinery	16
Roads, Highways, Mass Transit	3
Waterworks, Pipes and Sanitation	5
Mining, Quarries & from the Ground	7
University, Marina & Mall Infrastructure	3
Network City Embassy / Estate	8
Solar & Internet	8
Healthcare / Pharmaceuticals / Food	8
Sports & Education	8
Land	8
Companies (Buy or Merge)	8
Assets / Resources	4
Other	12

Then in row 79, I start to assign this between Trade, the Network City (who is paid for

separately, not from the initial cash flow) and the Malawi Grand Śpin Networks.
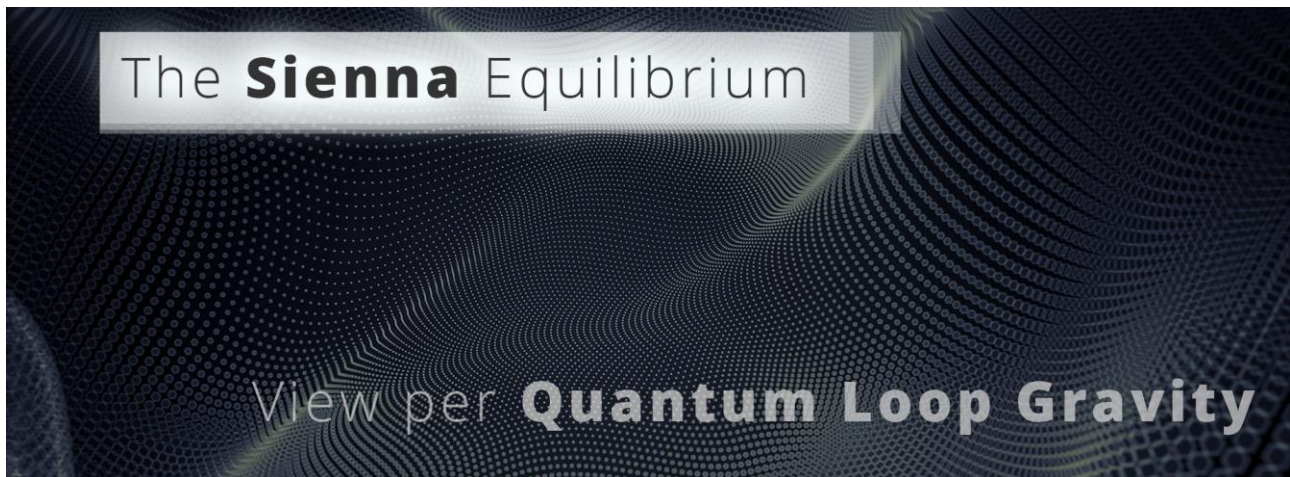
Below we move to the right to L:114 and industry sector 20: Building Industry / Factories / Machinery which is assigned $21,474,836 in cash flow.

Next, this company is then divided into how it spends its cash flow, in columns L, M and N

Labour:
Building Supplies (Manufactured):
Building Supplies (From the Ground):
Land:
Interiors / Shop Fitting / Kitchens / Bathrooms:
Real Estate:
Machinery Supplies:
Industry (Chemicals, Engineering, Other):
Packaging / Warehousing / Waist:
Goods bought at Malls, Marinas & S-World Stores:
Internet, Solar Arrays & Installation:
Electronics / Computers:
S-World GT & Other Transport:
Film, Luxury's, Concierge & Brand Malawi:
Media / Internet / News / TV / Sport / Ads:
Travel, Real Estate & Vacation Rentals:
Environmental, Lakes, Hills, Forests & Safaris:
Waterworks, Pipes and Sanitation:
Roads, Highways, Mass Transit
ꡠ Profit / Investment by
S-World Bond Owners :
POP Investment
POP Investment

ⵣ Profit Share
For Spartans (Personnel) :
Paid in Network Credits
Valid until Next Spin (S)
TBS™ | VSN™ | UCS™ | S-World Films
Ŝusskind Boost | ⅄ Peet Tent:
Education / University / Operations Centre:
Healthcare:
Financial Services:
Other:
Non-Production Expenses

Each of the above is allocated a fraction of the cash flow, the highest allocation to an Industry sector at 25%, is sector 20; Machinery Supplies $5,368,709. This figure is then multiplied by the number of companies per sector (from cell G:36) which is 16 making $85,899,345

100% of this cash flow is then spent on Machinery, and at this point, we would need to add $85,899,345 in machinery demand to the Net-Zero DCA cube or 4096 cell chessboard (64 x 64).

THE CFV
The Cashflow to GDP Variable
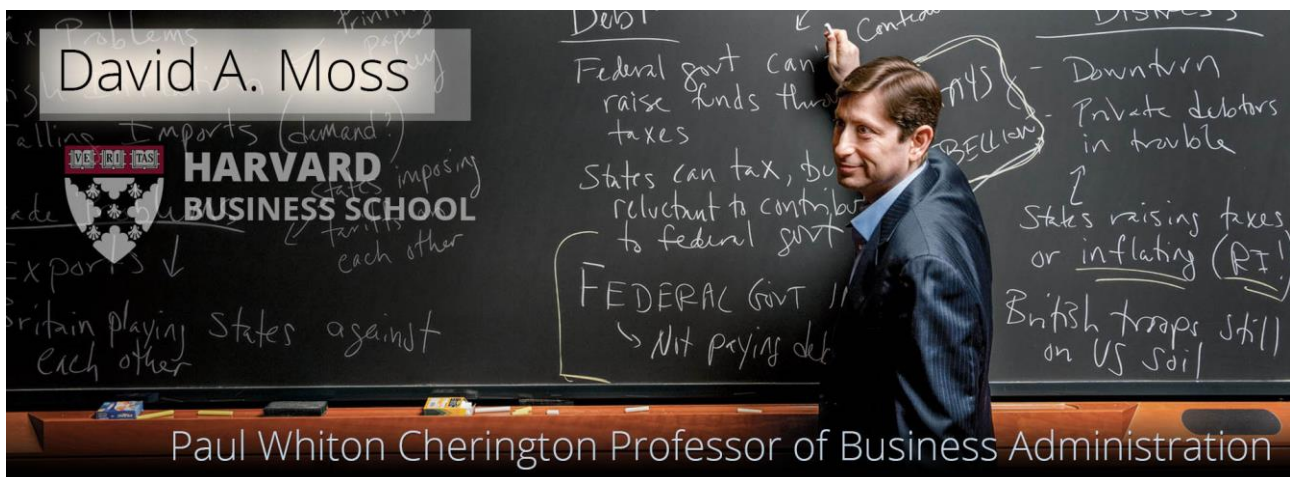
Next, on the spreadsheet tab The Sienna Equilibrium 1.07, we move further to the right, into the 'output estimator' at AE:140 and see that I have added the $85,899,345 in the 50% column. This is saying that I think half of what is bought is parts for goods, or in this case parts for a machine, that the company will assemble into a machine, and half is spent on completed machines.

I do this because in; A Concise Guide to Macroeconomic, right from the get-go David explains

the double-counting problem in GDP, we must not count both the parts for the machine, and the price of the machine in GDP, its either all the parts, or the final price of all machine, or how much everyone is paid, but in general, the standard way is to count the final costs of all complete goods and services. In Angelwing because of the TBS™, the 87 Quintillion Histories, and just because we can, the idea is to calculate GDP in all three ways.

Follow the spreadsheet down to the AC:207 to AH:207 and we see all the cashflow from all companies split into 5 categories: 100% GDP – 75% GDP – 50% GDP – 25% GDP and 0% GDP. And this generates the 66.163% CFV figure, which tells us that in this sector GDP is 66.163% of cash flow.

This is a very inaccurate way of working this out, but still, it gives a basic idea.

Now let's move back and see how labour spends its money.

In this early 2017 example, I used only 13% of cash flow for labour, which I read was the average figure for Africa.

Of the 13% of cash flow it was split as follows;

Food, Agriculture & Water	25%
Entertainment	0%
Property Developer & Labour	40%
Tesla Africa & Other Transport	10%
Other	25%

All of the above was classed as 100% output because labour is buying finished goods.

The Sienna Equilibrium 1.07

In making The Sienna Equilibrium 1.06, I could instinctually feel that it was possible to create spending paths that would see the cash flow circulate within the network, so I created another version of the spreadsheet, in place of sector 20. I used sector 2. Building Supplies (Manufactured) which did much the same thing but ended up with a CFV of 47.738%.

By this point, I could clearly see how easy it was to push cash flow one way or another. And the more Industry specializations the easier it becomes to create a super-monopoly. So, I started a new version of ŔÉŚ™ on a new spreadsheet that focused on trade, influenced by Paul Krugman's book. End This Depression Now:
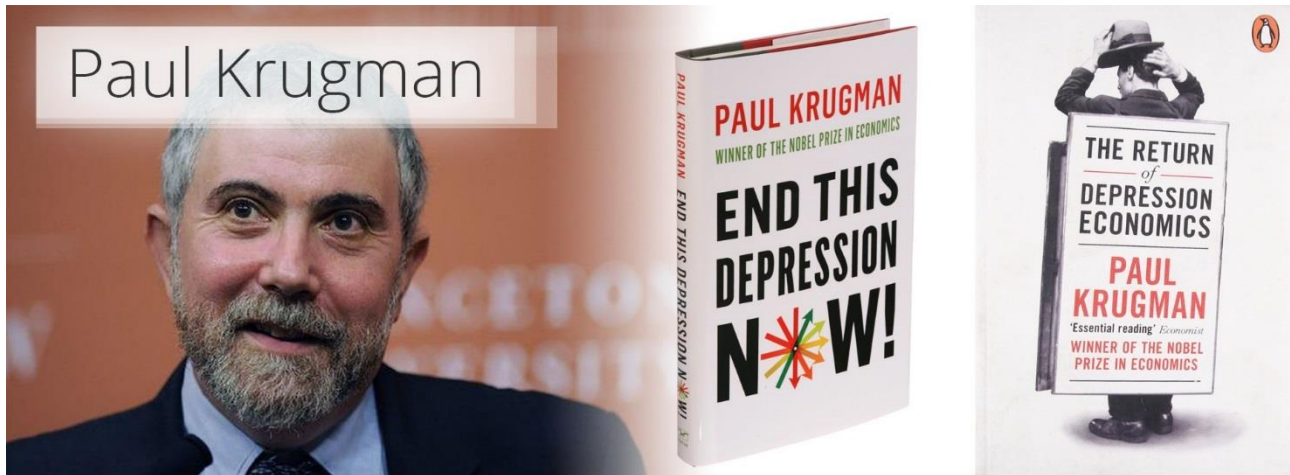
Plus Dani Rodrick's Straight Talk on Trade:

And Paul Collier's The Bottom Billion and The Plundered Planet.

Paul Collier

Chapter 7
The 87 Quintillion Histories

87 Quintillion Histories - Actual

We actually start with 870 sextillion histories, that's the number of different simulations that can be run starting with a supercomputer and a diminishing Moore's law ending in 2080.

It is not about creating 870 sextillion histories, we need to know which histories are best, so we need to add one billion mileposts, markers that will assign a yes-no answer to each milepost. And send a 1-bit signal yes, if a milestone is reached.

Can we then look at the data for the best histories based on the greatest number of common markers pinged? Or do we need a bit for each receiver of the marker as well and in addition simplifications going down and down so needing many more than 1 billion bits per pass?

If so, we need to try and cancel the infinities and phases,
If we assign 1 billion mileposts

So by receiving 1 billion computer moves, it can send yes-no answers for all histories, which can be plotted more simply.

Forgive my audaciousness, but if we can use a system like renormalization and QCD to cancel all infinities, we can get the equivalent of 97^{499} histories; the size of the M-theory multiverse.

SUPERECONOMICS
Beyond 87 Quintillion Histories

Beyond 87 Quintillion Histories looks at methods including quantum mechanics and forms of calculus in bids to be able to treat Histories in S-World **As-If** they were like QCD Renormalization, so for each of the 87 Quintillion Histories, there would be an almost infinite amount of unnecessary data cancelled from the problem.

I have been re-learning some old math and learning some new from Steven Strogatz's; Infinite Powers: How Calculus Reveals the Secrets of the Universe. And the following analogy of **analysis versus synthesis** caught my attention because in S-World Histories we focus on the special projects, and follow their journey from here to there, and from there to hear, and realize that it's the same journey no matter what way you look at it.

An analysis is working at the end of the problem backwards, first theorizing Angel City 5 (2080) as a world we would want our children's children to inherit (Net-Zero and maximizing special projects) and seeks to solve that problem by working out how to get there.

Synthesis on the other hand is different, in which case we start the experiment in 2020 working from the beginning seeking an answer to future problems such as CO_2 and many problems that will arise if we did not have the focus on special projects.

An analysis is working from the end result and finding how we got there.
Synthesis is working from the beginning seeking an answer to a problem you have no answer to. Personally, I've been to 2080 and back so many times it's difficult to say which came first 1. The idea of special projects leading to a better future, or 2. the creating of the UCS™ Voyagers and the Angel Cities in the future to lead to such an optimized future?

Of analysis and synthesis - synthesis is said to be harder - starting at the begging and creating a system, is harder than Analysing an existing system in order to calculate it. Fortunately in S-World, we know both the end and the begging, and it's no longer important to know which one came first, using commander's intent we go forwards from today in 'make them projects' fashion until 2080 is crafted by more than 87 quintillion histories.

Also from Infinite Powers by Steven Strogatz is the basic idea behind calculus and the carving up of a big problem into many smaller problems, and then solve all the small problems to calculate the big problem, as we have discussed a few times in the book are numerous examples of compression. Between being able to perform both analysis versus synthesis to this problem, the carving it up and the mathematical compression we are creating a system that is

Beyond 87 Quintillion Histories. The compression alone is likely to add a few zeros to the end.

Then there is logic, and good software engineering, as (chaos theory aside) most of the 87 Quintillion Histories will be from versions of the sum where very little or nothing happens. The more histories simulated, the more we can logically ignore certain variables, and more so when we train AI's to look for the same.

Going back to 2012 and the Monte Carlo n-particle transport code, and we are now firmly in the land of quantum mechanics and **As-If** systems for optimizing the 87 Quintillion Histories.
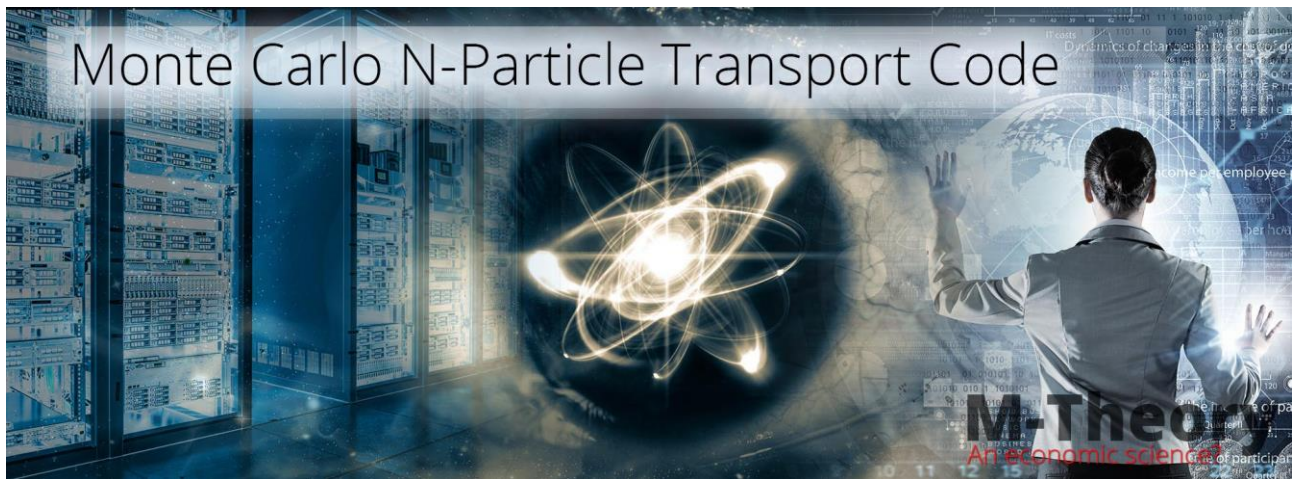
Now let's read some more of Hawking and Mlodinow's The Grand Design and hear about QCD Renormalization, Feynman Diagrams Closed Loops, Supersymmetry and M-Theory.

CONTINUING BEYOND **87 Quintillion Histories**

The previous extract links the idea of Alternate Histories with renormalization, Supersymmetry, String Theory and M-Theory, but misses out on LQG (Loop Quantum Gravity.)

I have included the section primarily in the hope that someone, (be they economist, engineer, physicist, mathematician or other) will be able to apply the renormalization or find an As-If renormalization method to the 87 quintillion histories.

Currently in the broad spectrum of 2020 to 2080 with 1 billion Simulation Events there remains 87,714,630,433,327,500,000 (87 quintillion histories). But as we have seen, we need more than a billion simulation events per history. Renormalization if it can be applied direct or **As-If** could effectively increase simulations by many zeros like to:
87,714,630,433,327,500,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000

or

87,714,630,433,327,500,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000

So whilst it's out of my sphere of command of knowledge, it may be possible by specialists. One thing I have done to assist this process is to quantize Network Credits (see tab POP Đimensions (3)).

Even if we can't do renormalization, the Grand Design section is important as it shows the importance of paths and histories in particle and theoretical physics, which I hope increases the importance of the histories approach to economics we adopt in Supereconomics.

As for Supersymmetry, the physics that helped name Supereconomics, I now have two clear examples, the As-If SUSY Hierarchal Spin Equalizer from 2012 seen right (or below if reading the PDF. And the Superpartner approach to how individual companies in the Malawi Grand Śpin Network expand into larger Đimensional networks that was created while writing this chapter. And is looking good as a major system for modelling the path of small companies into large networks.

PQS > Baby POP > Entanglement > SUSY Hierarchical Spin Equalizer

S-World PQS

M⇔Bst

$ Values show in 2040

Orlando String
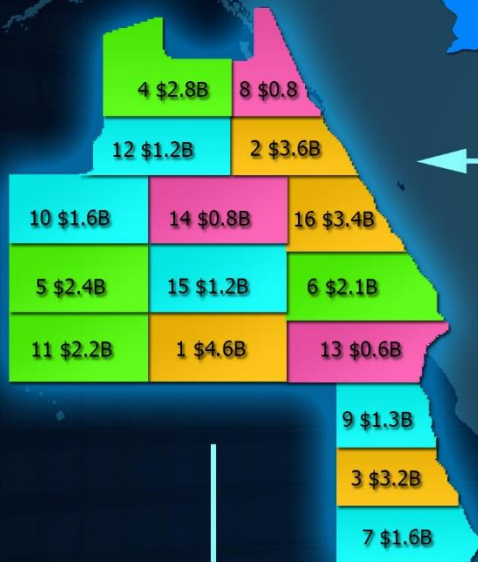
Florida Networks
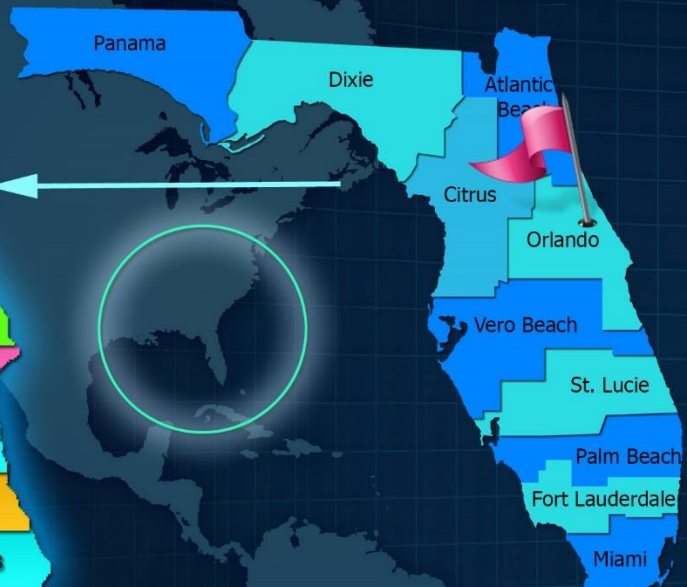
Weakest joins Strongest

Entangled Orlando String

Unfortunately, despite many attempts at the LHC (Large Hadron Collider), no trace of supersymmetry or string theory has been detected. What that means for M-theory can't be good. But does not stop the basic idea of Supereconomics as an economic theory attributing the idea of many maps of economics that may vary in places but agree in important places.

Zero to One
10 More Future Points

11. Without technological change, if China doubles its energy production over the next two decades, it will also double its air pollution. If every one of India's hundreds of millions of households were to live the way Americans already do—using only today's tools—the result would be environmentally catastrophic. Spreading old ways to create wealth around the world will result in devastation, not riches. In a world of scarce resources, globalization without new technology is unsustainable.

12. Today our challenge is to both imagine and create the new technologies that can make the 21st century more peaceful and prosperous than the 20th.

13. Monopolists can afford to think about things other than making money; non-monopolists can't. In perfect competition, a business is so focused on today's margins that it can't possibly plan for a long-term future. Only one thing can allow a business to transcend the daily brute struggle for survival: monopoly profits.

14. Creative monopolists give customers more choices by adding entirely new categories of abundance to the world. Creative monopolies aren't just good for the rest of society; they're powerful engines for making it better.

15. In March 2001, PayPal had yet to make a profit, but our revenues were growing 100% year-over-year. When I projected our future cash flows, I found that 75% of the company's present value would come from profits generated in 2011 and beyond—hard to believe for a company that had been in business for only 27 months. But even that turned out to be an underestimation. **Today, PayPal**

continues to grow at about 15% annually, and the discount rate is lower than a decade ago. It now appears that most of the company's value will come from 2020 and beyond.

LinkedIn is another good example of a company whose value exists in the far future. As of early 2014, its market capitalization was $24.5 billion—very high for a company with less than $1 billion in revenue and only $21.6 million in net income for 2012. You might look at these numbers and conclude that investors have gone insane. But this valuation makes sense when you consider LinkedIn's projected future cash flows.

The overwhelming importance of future profits is counterintuitive even in Silicon Valley. **For a company to be valuable it must grow and endure**, but many entrepreneurs focus only on short-term growth. They have an excuse: growth is easy to measure, but durability isn't. Those who succumb to measurement mania obsess about weekly active user statistics, monthly revenue targets, and quarterly earnings reports. However, you can hit those numbers and still overlook deeper, harder-to-measure problems that threaten the durability of your business.

16. **The most valuable companies in the future won't ask what problems can be solved with computers alone. Instead, they'll ask: how can computers help humans solve hard problems?**

17. **As we find new ways to use computers, they won't just get better at the kinds of things people already do; they'll help us to do what was previously unimaginable.**

18. Doing something *different* is what's truly good for society—and it's also what allows a business to profit by monopolizing a new market. The best projects are likely to be overlooked, not trumpeted by a crowd; **the best problems to work on are often the ones nobody else even tries to solve.**

19. Apple's value crucially depended on the singular vision of a particular person.

20. **If even the most farsighted founders cannot plan beyond the next 20 to 30 years, is there anything to say about the very distant future?**

THE GRAND DESIGN
Chapter 5. **The Theory of** Everything

by Professors **Stephen Hawking** and **Leonard Mlodinow**

The known forces of nature can be divided into four classes:

1. **Gravity.** This is the weakest of the four, but it is a long-range force and acts on everything in the universe as an attraction. This means that for large bodies the gravitational forces all add up and can dominate over all other forces.

2. **Electromagnetism.** This is also long-range and is much stronger than gravity, but it acts only on particles with an electric charge, being repulsive between charges of the same sign and attractive between charges of the opposite sign. This means the electric forces between large bodies cancel each other out, but on the scales of atoms and molecules they dominate. Electromagnetic forces are responsible for all of chemistry and biology.

3. **Weak Nuclear Force.** This causes radioactivity and plays a vital role in the formation of the elements in stars and the early universe. We don't, however, come into contact with this force in our everyday lives.

4. **Strong Nuclear Force.** This force holds together the protons and neutrons inside the nucleus of an atom. It also holds together the protons and neutrons themselves, which is necessary because they are made of still tinier particles; quarks. The strong force is the energy source for the sun and nuclear power, but, as with the weak force, we don't have direct contact with it.

The first force for which a quantum version was created was electromagnetism. The quantum theory of the electromagnetic field, called quantum electrodynamics, or QED for short, was developed in the 1940s by Richard Feynman and others, and has become a model for all quantum field theories.

A particle of light is an example of a boson. According to QED, all the interactions between charged particles—particles that feel the electromagnetic force—are described in terms of the exchange of photons.
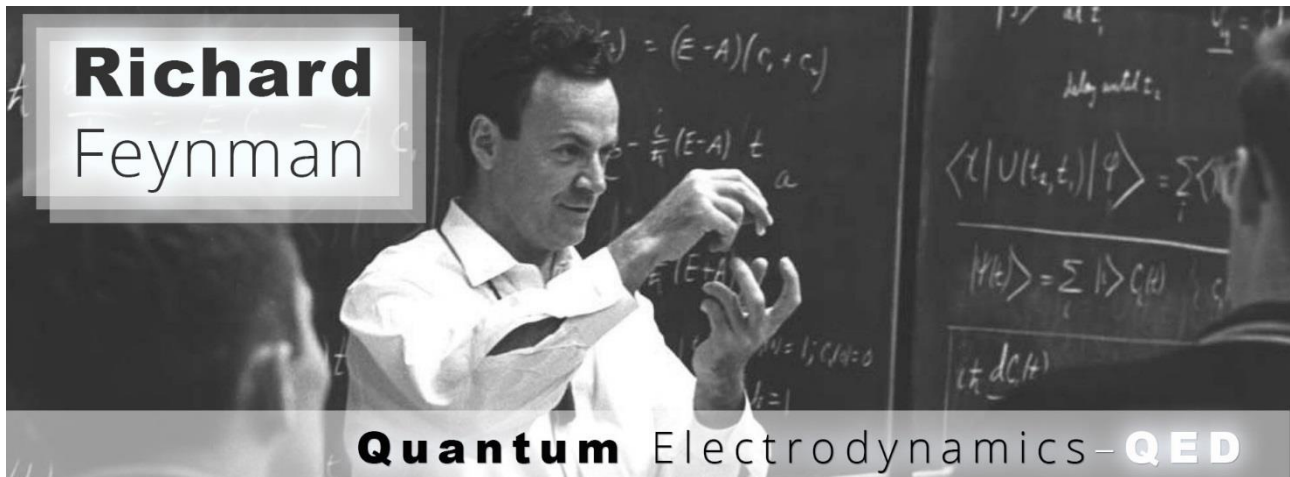
The predictions of QED have been tested and found to match experimental results with great precision. But performing the mathematical calculations required by QED can be difficult. The problem, as we'll see below, is that when you add to the above framework of particle exchange the quantum requirement that one include all the histories by which an interaction can occur—for example, all the ways the force particles can be exchanged—the mathematics becomes complicated. Fortunately, along with inventing the notion of alternative histories—Feynman also developed a neat graphical method of accounting for the different histories, a method that is today applied not just to QED but to all quantum field theories.

Feynman's graphical method provides a way of visualizing each term in the sum over histories. Those pictures, called **Feynman diagrams**, are one of the most important tools of modern physics. **In QED the sum over all possible histories can be represented as a sum over Feynman diagrams.**

F e y n m a n
D i a g r a m s
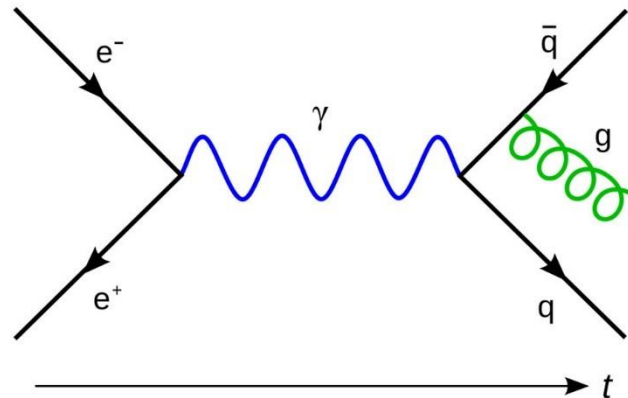
**The process of renormalization involves subtracting quantities that are defined to be infinite and negative in such a way that, with careful mathematical accounting, the sum of the negative infinite values and the positive infinite values that arise in the theory almost cancel out, leaving a small remainder, the finite observed values of mass and charge.**

Once we have fixed the mass and charge of the electron in this manner, we can employ QED to make many other very precise predictions, which all agree extremely closely with observation, **so renormalization is one of the essential ingredients of QED.**
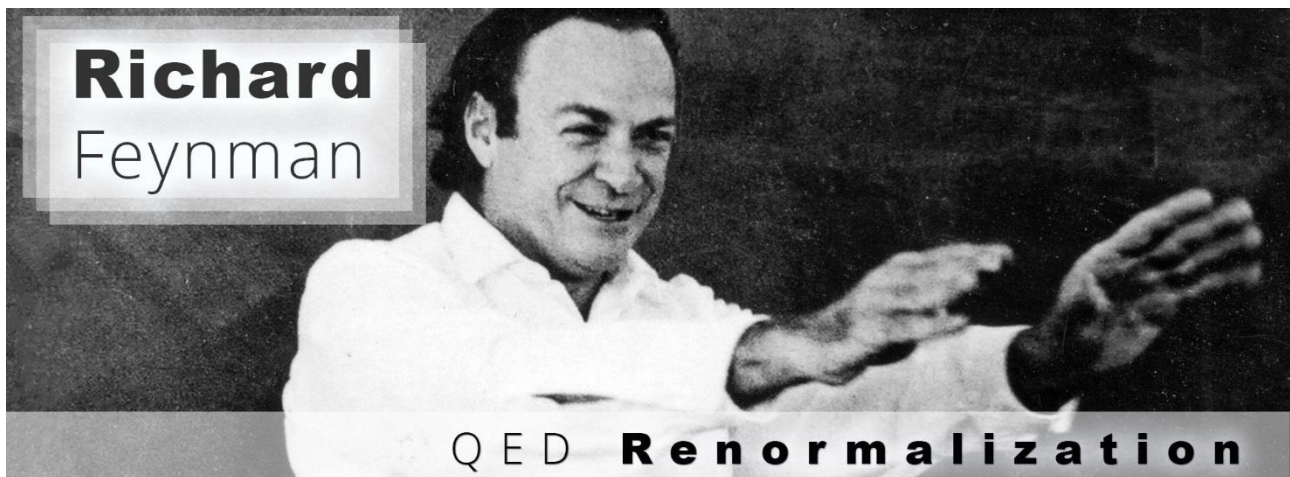
The success of renormalization in QED encouraged attempts to look for quantum field theories describing the other three forces of nature. People have therefore sought **a theory of everything** that will unify the four classes into a single law that is compatible with quantum theory. This would be the holy grail of physics.

The strong force can be renormalized on its own in a theory called QCD, or quantum chromodynamics. Since earlier observational evidence had also failed to support GUTs (Grand Unified Theories), most physicists adopted an ad hoc theory called the standard model, The standard model is very successful and agrees with all current

observational evidence**,** but it is ultimately unsatisfactory because it does not include gravity.

The **closed loops** in the Feynman diagrams for gravity produce infinities that cannot be absorbed by renormalization because in general relativity there are not enough renormalizable parameters (such as the values of mass and charge) to remove all the quantum infinities from the theory. We are therefore left with a theory of gravity that predicts that certain quantities, such as the curvature of space-time, are infinite, which is no way to run a habitable universe. That means the only possibility of obtaining a sensible theory would be for all the infinities to somehow cancel, without resorting to renormalization.

In 1976 a possible solution to that problem was found. It is called supergravity. **The prefix "super" was not appended because physicists thought it was "super"** that this theory of quantum gravity might actually work. Instead, **"super" refers to a kind of symmetry the theory possesses, called supersymmetry.**

In physics a system is said to have a symmetry if its properties are unaffected by a certain transformation such as rotating it in space or taking its mirror image.

One of the important implications of supersymmetry is that force particles and matter particles, and hence force and matter, are really just two facets of the same thing. Practically speaking, that means that each matter particle, such as a quark, ought to have a partner particle that is a force particle, and each force particle, such as the photon, ought to have a partner particle that is a matter particle. This has the potential to solve the problem of infinities because it turns out that **the infinities from closed loops of force particles are positive while the infinities from closed loops of matter particles are negative**, so the infinities in the theory arising from the force particles and their partner matter particles tend to cancel out.

The idea of **supersymmetry** was the key to the creation of supergravity, but the concept had actually originated years earlier with theorists studying a fledgeling theory called **string theory.** String theories also lead to infinities, but it is believed that in the right version they will all cancel out. They have another unusual feature: They are consistent only if space-time has ten dimensions.

Then, around 1994, people started to discover dualities—that different string theories, and different ways of curling up the extra dimensions, are simply different ways of describing the same phenomena in four dimensions. Moreover, they found that supergravity is also related to the other theories in this way. String theorists are now convinced that the five different string theories and supergravity are just different approximations to a more fundamental theory, each valid in different situations.
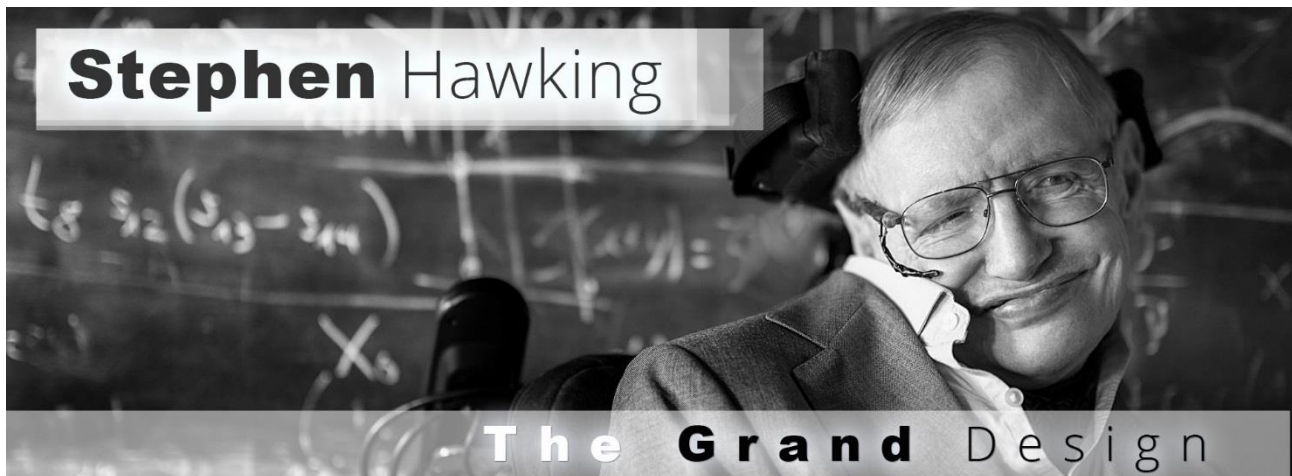
That theory is called M-theory. No one seems to know what the "M" stands for, but it may be "master," "miracle," "matrix, "or "mystery." It seems to be all four. People are still trying to decipher the nature of M-theory, but that may not be possible. It could be that the physicist's traditional expectation of a single theory of nature is untenable, and there exists no single formulation. **It might be that to describe the universe, we have to employ different theories in different situations.** Each theory may have its own version of reality, but according to model-dependent realism, **that is acceptable so long as the theories agree in their predictions whenever they overlap,** that is, whenever they can both be applied.

Whether M-theory exists as a single formulation or only as a network, we do know some of its properties. First, M-theory has eleven spacetime dimensions, not ten.

The mathematics of the theory restricts the manner in which the dimensions of the internal space can be curled. **The exact shape of the internal space determines both the values of physical constants, such as the charge of the**

electron, **and the nature of the interactions between elementary particles.**
In other words, it determines the apparent laws of nature. We say "apparent" because we mean the laws that we observe in our universe—the laws of the four forces, and the parameters such as mass and charge that characterize the elementary particles.

But the more fundamental laws are those of M-theory."

<div align="right">

End of Extract from:
The Grand Design
Chapter 5. The Theory of Everything.
by Professors **Stephen Hawking** and **Leonard Mlodinow**

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Maybe add more on Hawking on M-Theory here and repeat the Straight Talk on Trade Analogy where we have different theories for different situations.

Part 9?

S-World Net-Zero DCA Soft.

Zero to One - Chapter 14b.

STAGNATION OR SINGULARITY?

21. **If even the most farsighted founders cannot plan beyond the next 20 to 30 years, is there anything to say about the very distant future?**

    The ancients saw all of history as a neverending alternation between prosperity and ruin. Only recently have people dared to hope that we might permanently escape misfortune, and it's still possible to wonder whether the stability we take for granted will last.

    However, we usually suppress our doubts.
    Conventional wisdom seems to assume instead that the whole world will converge toward a plateau of development similar to the life of the richest countries today. In this scenario, the future will look a lot like the present. Given the interconnected geography of the contemporary world and the unprecedented destructive power of modern weaponry, it's hard not to ask whether a large-scale social disaster could be contained were it to occur. This is what fuels our fears of the third possible scenario: a collapse so devastating that we won't survive it.

    The last of the four possibilities is the hardest one to imagine: **accelerating takeoff toward a much better future.** The end result of such a breakthrough could take a number of forms, but any one of them would be so different from the present as to defy description.
    Which of the four will it be?

    Recurrent collapse seems unlikely: the knowledge underlying civilization is so widespread today that complete annihilation would be more probable than a long period of darkness followed by recovery. However, in the case of extinction, there is no human future of any kind to consider.

    If we define the future as a time that looks different from the present, then most people aren't expecting any future at all; instead, they expect coming decades to bring more globalization, convergence, and sameness. In this scenario, poorer countries will catch up to richer countries, and the world as a whole will reach an economic plateau. But even if a truly globalized plateau were possible, could it last? In the best case, economic competition would be more intense than ever before for every single person and firm on the planet. However, when you add competition to consume scarce resources, it's hard to see how a global plateau could last indefinitely. Without new technology to relieve competitive pressures, stagnation is likely to erupt into conflict. In case of conflict on a global scale, stagnation collapses into extinction.

    That leaves the fourth scenario, in which we create new technology to make a much better future.
    The most dramatic version of this outcome is called **the Singularity,** an attempt to name the imagined result of new technologies so powerful as to transcend the current limits of our understanding.

Ray Kurzweil, the best-known Singularitarian, starts from Moore's law and traces exponential growth trends in dozens of fields, confidently projecting a future of superhuman artificial intelligence. According to Kurzweil, "the Singularity is near," it's inevitable, and all we have to do is prepare ourselves to accept it. But no matter how many trends can be traced, the future won't happen on its own. What the Singularity would look like matters less than the stark choice we face today between the two most likely scenarios: nothing or something. It's up to us.

22. ## We cannot take for granted that the future will be better, and that means we need to work to create it today.

Whether we achieve the Singularity on a cosmic scale is perhaps less important than whether we seize the unique opportunities we have to do new things in our own working lives. Everything important to us—the universe, the planet, the country, your company, your life, and this very moment —is singular.

23. Our task today is to find singular ways to create the new things that will make the future not just different, but better—to go from 0 to 1. **The essential first step is to think for yourself. Only by seeing our world anew, as fresh and strange as it was to the ancients who saw it first, can we both re-create it and preserve it for the future.**

Chapter 10

QuESC

Battle Stations aboard the QuESC Battlestar

The Quantum Economic System Core

Commander's **Intent**

"In the Army, there's an old saying: 'No plan survives engagement with the enemy.' No matter how carefully one plans for battle, running through every possible scenario of what might happen and what might go wrong, the reality on the field will inevitably be different.

As a result, Army leaders have adopted a style of leadership known as 'Commander's Intent.'

Commander's Intent is just that: a clear concise statement of the specific goal a commander is looking to achieve. Something like, 'Capture and hold that hill until reinforcements arrive."

From 'The Challenger Sale' by Matthew Dixon, Brent Adamson

Alongside the cubic choice architecture and software that is created to be understood by children, there are specialist and advanced systems. The S-World UCS™ MMO game players who have reached particular levels within the game, alongside an elite set of S-World personnel become QuESC 'pros' – together, they become the Quantum Economic System Core.

In QuESC, we are the uncertainty principle within S-World Angelwing. The Quantum Economic System Core is human sentience.

QuESC is us, humans, on the bridge or in-game, directing the show, working with the Angelwing AIs within the 87 Quintillion Histories, calling up the Spin cubes and reacting to every emergency, seeing the consequences of actions as each change ripples through the Śpin Network.
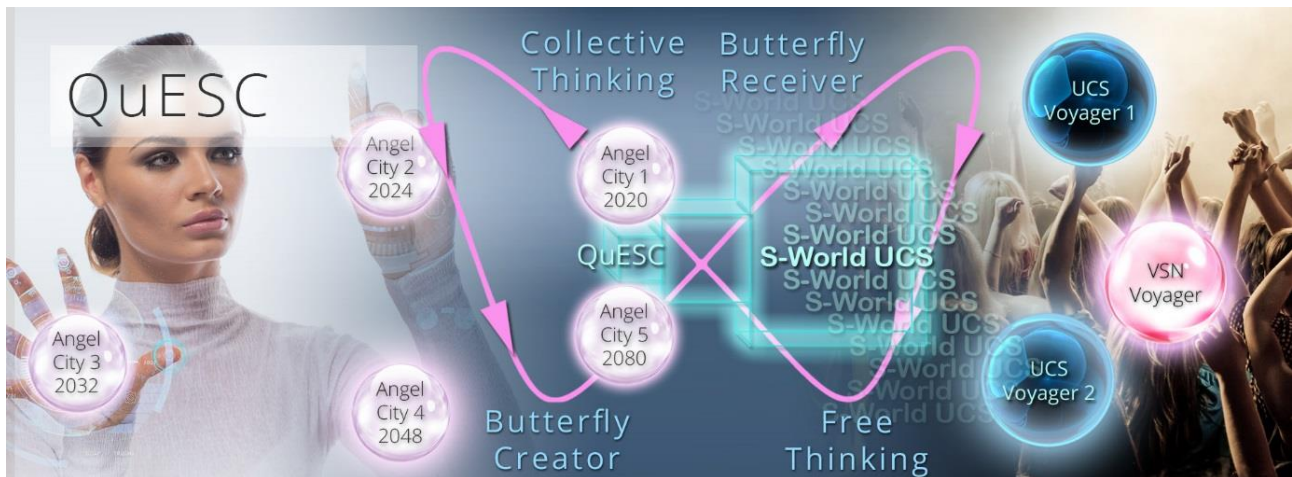
Above, we see the illustration that is usually associated with QuESC and the marshalling of Histories; in which on the left, we see a QuESC operator; on the right, we see a crowd who represent elite UCS™ MMO pros (and sometimes just anyone playing the game). In the middle, we see the infinite butterfly effect, made of ripple effects, internalities, and externalities. Starting at the bottom left of the butterfly, we see the Butterfly Creator, here a new history set has been created and it flies out and is seen in the S-World UCS™ MMO game. Here the many free-thinking pros and amateurs get to adapt the history to their version of the game, these new 'free-thinking' histories are received by the QuESC AI and its human component (QuESC Operators) to become part of the network in the real world. This process is continuous, it is how the network grows, and how it tackles problems. At any point, any one person could solve the problem at hand, rise in rank, and be financially rewarded.

On top of the QuESC operator and the MMO crowd, I added the M-System 13. UCS™ Voyagers, which create copies of the S-World environment and economy and sends them forwards in time so the business operations can be virtually simulated in the future; and businesses can choose to contract the wins, avoid the losses, and replay promising simulations in Voyagers 2, 3, 4 ...

On the left of the QuESC graphic, we see M-System 14. Angel Cities 1 to 5, which represent

different way stations in 2020, 2024, 2032, 2048 and 2080. The principle time points that we create histories from and to, from and to, from and to.
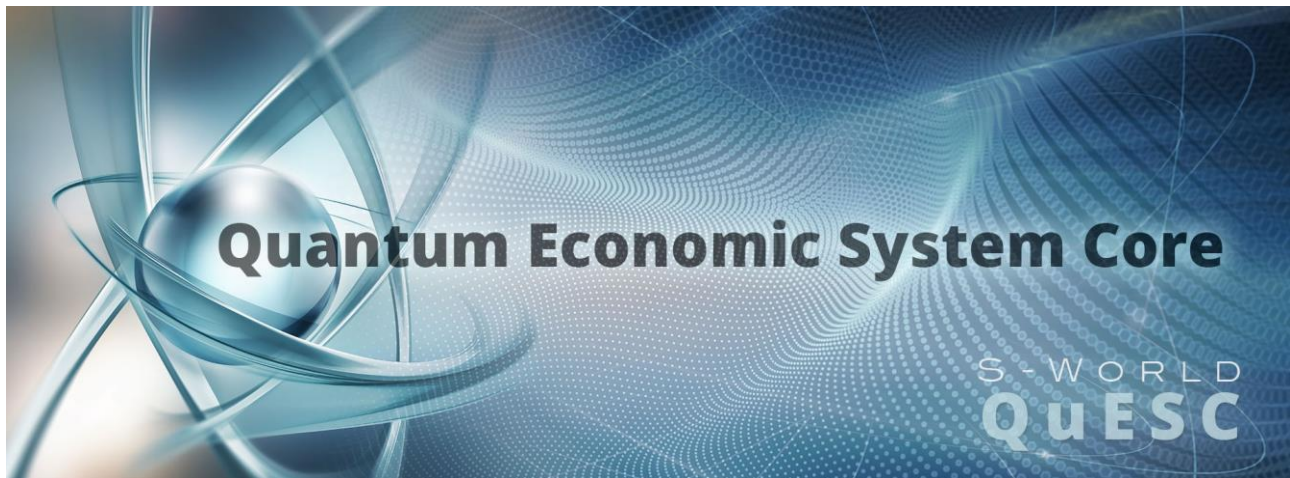
I like to think that I will work and teach from the front line; in Angel City 1 and the command centre will look like the bridge of the Battlestar Galactica, and everyone is on action stations as soon as even the slightest ripple (that has not previously been simulated as a history) appears. The AI will avoid the never-ending call to arms by applying histories that work for many situations, but will call on the bridge and MMO support when *'No plan survives engagement with the enemy'* scenarios are in effect.

The QuESC teams will need to create new histories on the fly as we treat the marshalling of histories like a military exercise like we were on the bridge of the Battle Galactica (series); a war room made to match, which in some parts is analogue in case of EMPs, Cylon's or Skynet.

If we see a significant network of companies missing their paths/histories, it would be like seeing a Cylon Base-Star on the radar, battle stations, and QuESC (us humans) take immediate action to send commands to the wayward business and come up with a solution in dramatic fashion.

In the next graphic, I am attempting to show a giant disruption at the quantum scale with each cube representing a company or quality circle that has been disrupted in a massive shock. We see the QuESC teams at Angel City 1 and the MMO pros across the world virtually onboard the Galactica flying throughout the quantum asteroid field of companies.

It is QuESC Battlestar's job to put the pieces back together again.

This quantum asteroid field of many companies and networks that have been dislodged from a stable Grand Śpin Network after a supply shock; which could be a major new competitor, a political decision, a technology developed that makes an entire sector redundant, you name it.

The general idea is that QuESC is us, humans, at the heart of the AI, at the heart of the system core – The Angelwing system core. For sure, most of the 87 quintillion histories and beyond are made by the supercomputer that sits below the Angelwing AI. But when it comes to how to navigate the unknown future, when it comes to shocks, it's the human component working with the AI that will save the day. 87 quintillion (87,714,630,433,327,500,000) histories are not as big as they sound unless we can apply a renormalization technique which would probably be quantum computing; in which, in place of the 87 quintillion paths/histories, would be all paths and histories. And I dare say that's the simplest way of expressing Feynman Sum Over Histories. Quantum computing is the equivalent of the Feynman Sum Over Histories.

Battlestar Galactica is significant to S-World because it was how I came to hear of string theory, the theory of everything, and why I started the work in chaos theory which created POP.

Within the [Spartan Theory](), the second chapter of S-World.biz, I had written the film treatment; The Sienna Project; in which my Angel Sienna communicates the idea of Supereconomics to me from across the spiritual plane. A month later, I adapted the script to focus on time travel and to Battlestar Galactica and posted it on the Battlestar Galactica Facebook page. It was liked and started some conversations. And in conversations with Anthony Rauba about predicting the future, he suggested I look at string theory - The Theory of Everything, a suggestion I

followed to [The Network on a String](#) in 2012, then [M-Systems](#) in 2017, and [The E-TOE](#) also in 2017, including [the Peet Tent and Susskind Boost](#) and [Super Coupling](#).

But Rauba's single most significant contribution is now the S-World Mantra.
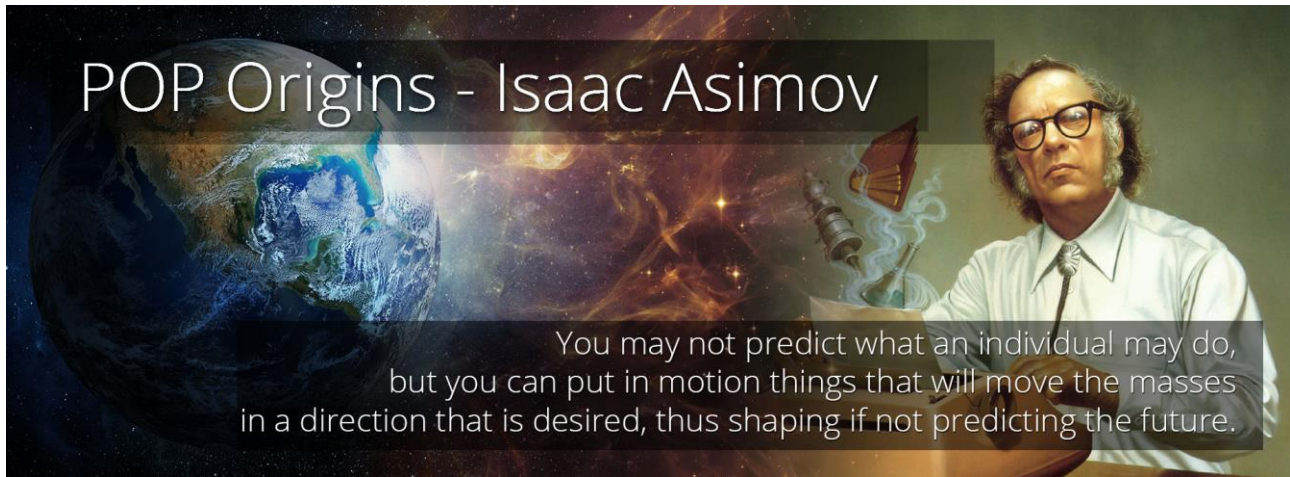
"You may not predict what an individual may do, but you can put in motion things that will move the masses in a direction that is desired. **Thus, shaping if not predicting the future**."

The S-World Mantra Since 2011 **| Isaac Asimov**

Now Add Man-Machine???

Part 2
The Suburb Sale | Grand Śpin Networks

Chapter 8
Monopolies and Secrets

Part One:

Monopolies and Secrets

Answers to **Key Points** *from Zero to One by Peter Thiel with Blake Masters*

Preface: Zero to One

1. The Challenge of the Future (presented previously)

2. Party Like It's 1999

3. All Happy Companies Are Different

4. The Ideology of Competition

5. Last Mover Advantage

6. You Are Not a Lottery Ticket

7. Follow the Money

8. Secrets

Chapter 2.
PARTY LIKE IT'S 1999

Our contrarian question—**What important truth do very few people agree with you on?**—is difficult to answer directly. It may be easier to start with a preliminary: what does everybody agree on? "Madness is rare in individuals—but in groups, parties, nations, and ages it is the rule," Nietzsche wrote (before he went mad). If you can identify a delusional popular belief, you can find what lies hidden behind it: the contrarian truth.

Consider an elementary proposition: companies exist to make money, not to lose it. This should be obvious to any thinking person. But it wasn't so obvious to many in the late 1990s, when no loss was too big to be described as an investment in an even bigger, brighter future. The conventional wisdom of the "New Economy" accepted page views as a more authoritative, forward-looking financial metric than something as pedestrian as profit.

Conventional beliefs only ever come to appear arbitrary and wrong in retrospect; whenever one collapses, we call the old belief a bubble.

Dot-com mania was intense but short—18 months of insanity from September 1998 to March 2000. We wanted to create a new internet currency to replace the U.S. dollar and by the fall of '99, our email payment product worked well. We needed to attract a critical mass of at least a million users. On February 16, 2000, the Wall Street Journal ran a story lauding our viral growth and suggesting that PayPal was worth $500 million. When we raised $100 million the next month, our lead investor took the Journal's back-of-the-envelope valuation as authoritative. (Other investors were in even more of a hurry. A South Korean firm wired us $5 million without first negotiating a deal or signing any documents. When I tried to return the money, they wouldn't tell me where to send it.) That March 2000 financing round bought us the time we needed to make PayPal a success. Just as we closed the deal, the bubble popped.

The NASDAQ reached 5,048 at its peak in the middle of March 2000 and then crashed to 3,321 in the middle of April. By the time it bottomed out at 1,114 in October 2002.

The country had long since interpreted the market's collapse as a kind of divine judgment against the technological optimism of the '90s. The era of cornucopian hope was relabeled as an era of crazed greed and declared to be definitely over.

Everyone learned to treat the future as fundamentally indefinite, and to dismiss as an extremist anyone with plans big enough to be measured in years instead of quarters.

Globalization replaced technology as the hope for the future. Since the

'90s migration "from bricks to clicks" didn't work as hoped, investors went back to bricks (housing) and BRICs (globalization). The result was another bubble, this time in real estate.

It's true that there was a bubble in technology. The late '90s was a time of hubris: **people believed in going from 0 to 1.** Too few startups were actually getting there, and many never went beyond talking about it. But people understood that we had no choice but to find ways to do more with less. The market high of March 2000 was obviously a peak of insanity; less obvious but more important, it was also a peak of clarity.

People looked far into the future, saw how much valuable new technology we would need to get there safely, and judged themselves capable of creating it.

We still need new technology, and we may even need some 1999-style hubris and exuberance to get it. To build the next generation of companies, we must abandon the dogmas created after the crash.

That doesn't mean the opposite ideas are automatically true: you can't escape the madness of crowds by dogmatically rejecting them. Instead ask yourself: how much of what you know about business is shaped by mistaken reactions to past mistakes? **The most contrarian thing of all is not to oppose the crowd but to think for yourself.**

Chapter 3.

ALL HAPPY COMPANIES ARE DIFFERENT

The business version of our contrarian question is: **what valuable company is nobody building?** This question is harder than it looks, because your company could create a lot of value without becoming very valuable itself. Creating value is not enough—you also need to capture some of the value you create.

This means that even very big businesses can be bad businesses. **For example, U.S. airline companies** serve millions of passengers and create hundreds of billions of dollars of value each year. But in 2012, when the average airfare each way was $178, the airlines made only 37 cents per passenger trip. **Compare them to Google**, which creates less value but captures far more. Google brought in $50 billion in 2012 (versus $160 billion for the airlines), but it kept 21% of those revenues as profits—**more than 100 times the airline industry's profit margin that year.** Google makes so much money that it's now worth three times more than every U.S. airline combined.

The airlines compete with each other, but Google stands alone.

Economists use two simplified models to explain the difference: perfect competition and monopoly.

"Perfect competition" is considered both the ideal and the default state in Economics 101. So-called perfectly competitive markets achieve equilibrium when producer supply meets consumer demand. Every firm in a competitive market is undifferentiated and sells the same homogeneous products. Since no firm has any market power, they must all sell at whatever price the market determines. If there is money to be made, new firms will enter the market, increase supply, drive prices down, and thereby eliminate the profits that attracted them in the first place. If too many firms enter the market, they'll suffer losses, some will fold, and prices will rise back to sustainable levels. **Under perfect competition, in the long run, no company makes an economic profit.**

The opposite of perfect competition is monopoly. Whereas a competitive firm must sell at the market price, a monopoly owns its market, so it can set its own prices. Since it has no competition, it produces at the quantity and price combination that maximizes its profits.

To an economist, every monopoly looks the same, whether it deviously eliminates rivals, secures a license from the state, or innovates its way to the top. In this book, we're not interested in illegal bullies or government favorites:

> By "monopoly," we mean the kind of company that's so good at what it does that no other firm can offer a close substitute.

LIES PEOPLE TELL

How much of the world is actually monopolistic? How much is truly competitive? It's hard to say, because our common conversation about these matters is so confusing. To the outside observer, all businesses can seem reasonably alike, so it's easy to perceive only small differences between them. But the reality is much more binary than that. **There's an enormous difference between perfect competition and monopoly,** and most businesses are much closer to one extreme than we commonly realize. The confusion comes from a universal bias for describing market conditions in self-serving ways: both monopolists and competitors are incentivized to bend the truth.

Monopoly Lies

Monopolists lie to protect themselves. They know that bragging about their great monopoly invites being audited, scrutinized, and attacked. Since they very much want their monopoly profits to continue unmolested, they tend to do whatever they can to conceal their monopoly—usually by exaggerating the power of their (non-existent) competition. Google's motto—"Don't be evil"—is in part a branding ploy, but it's also characteristic of a kind of business that's successful enough to take ethics seriously without jeopardizing its own existence. In business, money is either an important thing or it is everything.

Monopolists can afford to think about things other than making money; non-monopolists can't.

In perfect competition, a business is so focused on today's margins that it can't possibly plan for a long-term future.

Only one thing can allow a business to transcend the daily brute struggle for survival: **monopoly profits.**

Zero to One by Peter Thiel
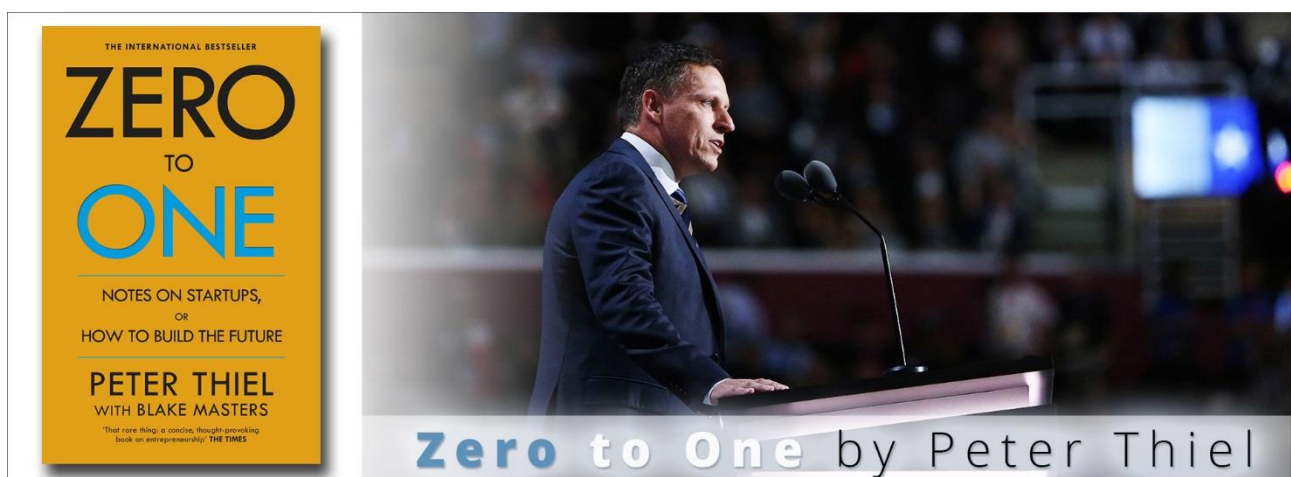
MONOPOLY CAPITALISM

So, a monopoly is good for everyone on the inside, but what about everyone on the outside? Do outsized profits come at the expense of the rest of society? Actually, **yes**: profits come out of customers' wallets, and monopolies deserve their bad reputation—**but only in a world where nothing changes.** In a static world, a monopolist is just a rent collector. If you corner the market for something, you can jack up the price; others will have no choice but to buy from you. Think of the famous board game: deeds are shuffled around from player to player, but the board never changes. There's no way to win by inventing a better kind of real estate development. The relative values of the properties are fixed for all time, so all you can do is try to buy them up.

But the world we live in is dynamic: it's possible to invent new and better things. Creative monopolists give customers more choices by adding entirely new categories of abundance to the world. **Creative monopolies aren't just good for the rest of society; they're powerful engines for making it better.**

The dynamism of new monopolies itself explains why old monopolies don't strangle innovation. With Apple's iOS at the forefront, the rise of mobile computing has dramatically reduced Microsoft's decades-long operating system dominance. Before that, IBM's hardware monopoly of the '60s and '70s was overtaken by Microsoft's software monopoly. AT&T had a monopoly on telephone service for most of the 20th century, but now anyone can get a cheap cell phone plan from any number of providers.

If the tendency of monopoly businesses were to hold back progress, they would be dangerous and we'd be right to oppose them. But the history of progress is a history of better monopoly businesses replacing incumbents**.**

Monopolies drive progress because the promise of years or even decades of monopoly profits provides a powerful incentive to innovate. Then monopolies can keep innovating because profits enable them to make the long-term plans and to finance the **ambitious research projects** that firms locked in competition can't dream of.

So why are economists obsessed with competition as an ideal state? It's a relic of history. Economists copied their mathematics from the work of 19th-century physicists: they see individuals and businesses as interchangeable atoms, not as unique creators. Their theories describe an equilibrium state of perfect competition because that's what's easy to model, not because it represents the best of business. But it's worth recalling that the long-run equilibrium predicted by 19th-century physics was a state in which all energy is evenly distributed, and everything comes to rest—also known as the heat death of the universe. Whatever your views on thermodynamics, it's a powerful metaphor: **in business, equilibrium means stasis, and stasis means death.** If your industry is in a competitive equilibrium, the death of your business won't matter to the world; some other undifferentiated competitor will always be ready to take your place.

Perfect equilibrium may describe the void that is most of the universe. It may even characterize many businesses. But every new creation takes place far from equilibrium. In the

real world outside economic theory, every business is successful exactly to the extent that it does something others cannot.

Monopoly is therefore not a pathology or an exception. Monopoly is the condition of every successful business.

Tolstoy opens Anna Karenina by observing: "All happy families are alike; each unhappy family is unhappy in its own way." Business is the opposite. All happy companies are different: each one earns a monopoly by solving a unique problem. All failed companies are the same: they failed to escape competition.

Chapter 4.

The Ideology Of Competition

Creative monopoly means new products that benefit everybody and sustainable profits for the creator. Competition means no profits for anybody, no meaningful differentiation, and a struggle for survival.

So why do people believe that competition is healthy? The answer is that competition is not just an economic concept or a simple inconvenience that individuals and companies must deal with in the marketplace. More than anything else;

Competition is an ideology—the ideology—that pervades our society and distorts our thinking.

We preach competition, internalize its necessity, and enact its commandments; and as a result, we trap ourselves within it—even though the more we compete, the less we gain.
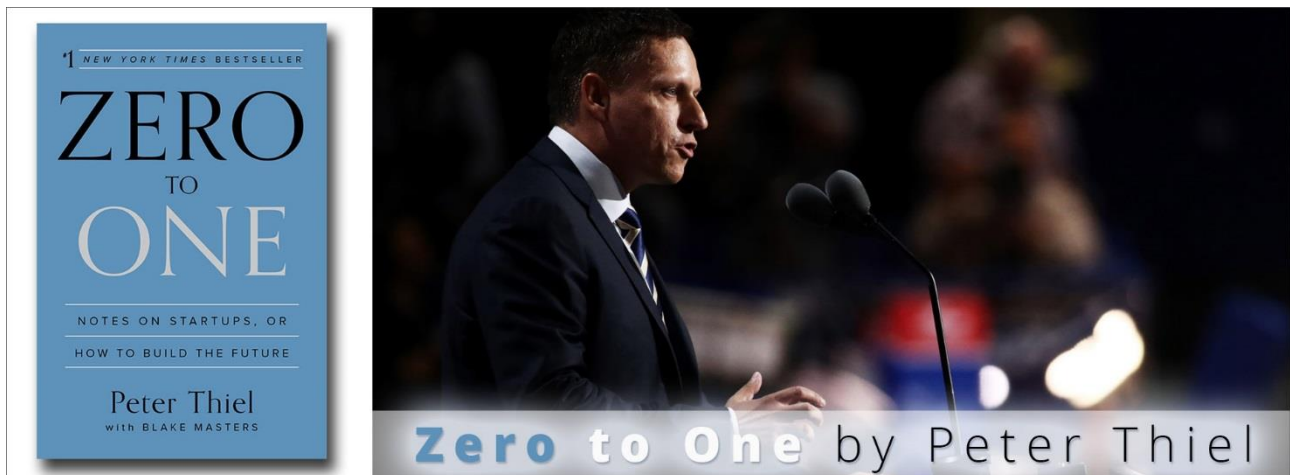
This is a simple truth, but we've all been trained to ignore it. Our educational system both drives and reflects our obsession with competition; Elite students climb confidently until they reach a level of competition sufficiently intense to beat their dreams out of them. Higher education is the place where people who had big plans in high school get stuck in fierce rivalries with equally smart peers over conventional careers like management consulting and investment banking.

   Professors downplay the cutthroat culture of academia, but managers never tire of comparing business to war. MBA students carry around copies of Clausewitz and Sun Tzu. War metaphors invade our everyday business language: we use head-hunters to build up a sales force that will enable us to take a captive market and make a killing. **But really it's competition, not business, that is like war: allegedly necessary, supposedly valiant, but ultimately destructive.**

Why do people compete with each other? Marx and Shakespeare provide two models for understanding almost every kind of conflict.

According to Marx, people fight because they are different. The proletariat fights the bourgeoisie because they have completely different ideas and goals (generated, for Marx, by their very different material circumstances). The greater the differences, the greater the conflict. To Shakespeare, by contrast, all combatants look more or less alike. It's not at all clear why they should be fighting, since they have nothing to fight about.

Let's test the Shakespearean model in the real world. Imagine a production called **Gates and Schmidt**, based on Romeo and Juliet. Montague is Microsoft. Capulet is Google. Two great families, run by alpha nerds, sure to clash on account of their sameness.

As with all good tragedy, the conflict seems inevitable only in retrospect. In fact it was entirely avoidable. These families came from very different places. The House of Montague built operating systems and office applications. The House of Capulet wrote a search engine. What was there to fight about?

Lots, apparently. **As a startup, each clan had been content to leave the other alone and prosper independently. But as they grew, they began to focus on each other**. Montagues obsessed about Capulets obsessed about Montagues. **The result?** Windows vs. Chrome OS, Bing vs. Google Search, Explorer vs. Chrome, Office vs. Docs, and Surface vs. Nexus.

Just as war cost the Montagues and Capulets their children, **it cost Microsoft and Google their dominance: Apple came along and overtook them all**. In January 2013, Apple's market capitalization was $500 billion, while Google and Microsoft combined were worth $467 billion. Just three years before, Microsoft and Google were each more valuable than Apple. War is costly business.

The hazards of imitative competition may partially explain why individuals with an Asperger'slike social ineptitude seem to be at an advantage in Silicon Valley today. If you're less sensitive to social cues, you're less likely to do the same things as everyone else around you. If you're interested in making things or programming computers, you'll be less afraid to pursue those activities singlemindedly and thereby become incredibly good at them.

Competition can make people hallucinate opportunities where none exist.

Oracle CEO Larry Ellison's theoried that was that it's always good to have an enemy, so long as it was large enough to appear threatening (and thus motivational to employees) but not so large as to actually threaten the company.

For Shakespears Hamlet, greatness means willingness to fight for reasons as thin as an eggshell: anyone would fight for things that matter;

True heroes take their personal honor so seriously they will fight for things that don't matter. **This twisted logic is part of human nature, but it's disastrous in business.** If you can recognize competition as a destructive force instead of a sign of value, you're already more sane than most. The next chapter is about how to use a clear head to build a monopoly business.

Chapter 5.
Last Mover Advantage

Escaping competition will give you a monopoly, but even a monopoly is only a great business if it can endure in the future. Compare the value of the New York Times Company with Twitter. Each employs a few thousand people, and each gives millions of people a way to get news. But when Twitter went public in 2013, it was valued at $24 billion—more than 12 times the Times's market capitalization —even though the Times earned $133 million in 2012 while Twitter lost money.

"What explains the huge premium for Twitter? The answer is **cash flow.** This sounds bizarre at first, since the Times was profitable while Twitter wasn't. But a great business is defined by its ability to generate cash flows in the future. Investors expect Twitter will be able to capture monopoly profits over the next decade, while newspapers' monopoly days are over.

Simply stated, the value of a business today is the sum of all the money it will make in the future."

Peter Thiel

"The value of a business today is: **The sum of all the money it will make in the future.**"

To properly value a business, you also have to discount those future cash flows to their present worth, since a given amount of money today is worth more than the same amount in the future. Comparing discounted cash flows shows the difference between low-growth businesses and highgrowth startups at its starkest. Most of the value of low-growth businesses is in the near term. An Old Economy business (like a newspaper) might hold its value if it can maintain its current cash flows for five or six years. However, any firm with close substitutes will see its profits competed away. Nightclubs or restaurants are extreme examples: successful ones might collect healthy amounts today, but their cash flows will

probably dwindle over the next few years when customers move on to newer and trendier alternatives.

Technology companies follow the opposite trajectory. They often lose money for the first few years: it takes time to build valuable things, and that means delayed revenue.

Most of a tech company's value will come at least 10 to 15 years in the future.
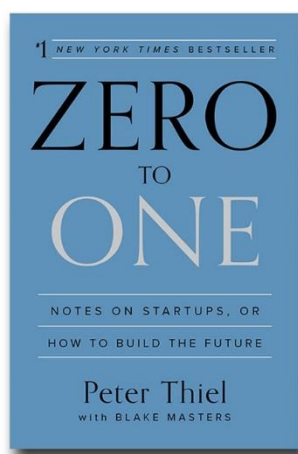
CHARACTERISTICS OF MONOPOLY

What does a company with large cash flows far into the future look like? Every monopoly is unique, but they usually share some combination of the following characteristics: **proprietary technology, network effects, economies of scale, and branding.**

This isn't a list of boxes to check as you build your business—there's no shortcut to monopoly. However, analyzing your business according to these characteristics can help you think about how to make it durable.

5. Proprietary Technology

Proprietary technology is the most substantive advantage a company can have because it makes your product difficult or impossible to replicate. Google's search algorithms, for example, return results better than anyone else's. Proprietary technologies for extremely short page load times and highly accurate query autocompletion add to the core search product's robustness and defensibility. It would be very hard for anyone to do to Google what Google did to all the other search engine companies in the early 2000s.

As a good rule of thumb, proprietary technology must be at least 10 times better than its closest substitute in some important dimension to lead to a real monopolistic advantage.

Zero to One by Peter Thiel

The clearest way to make a 10x improvement is to invent something completely new. If you build something valuable where there was nothing before, the increase in value is theoretically infinite.

A drug to safely eliminate the need for sleep, or a cure for baldness, for example, would certainly support a monopoly business. Or you can radically improve an existing solution: once you're 10x better, you escape competition. PayPal, for instance, made buying and selling on eBay at least 10 times better. Instead of mailing a check that would take 7 to 10 days to arrive, PayPal let buyers pay as soon as an auction ended. Sellers received their proceeds right away, and unlike with a check, they knew the funds were good. Amazon made its first 10x improvement in a particularly visible way: they offered at least 10 times as many books as any other bookstore.

You can also make a 10x improvement through superior integrated design. Apple's iPad was a clear improved on anything that had come before by at least an order of magnitude: tablets went from unusable to useful.

6. Network Effects

Network effects make a product more useful as more people use it. For example, if all your friends are on Facebook, it makes sense for you to join Facebook, too. Unilaterally choosing a different social network would only make you an eccentric.

Network effects can be powerful, but you'll never reap them unless your product is valuable to its very first users when the network is necessarily small. **Mark Zuckerberg's first product was designed to get all his classmates signed up, not to attract all people of Earth.** This is why successful network businesses rarely get started by MBA types: the initial markets are so small that they often don't even appear to be business opportunities at all.

7. Economies of Scale

A monopoly business gets stronger as it gets bigger: the fixed costs of creating a product (engineering, management, office space) can be spread out over ever greater quantities of sales.

Software startups can enjoy especially dramatic economies of scale because the marginal cost of producing another copy of the product is close to zero.

Many businesses gain only limited advantages as they grow to large scale. Service businesses especially are difficult to make monopolies. If you own a yoga studio, for

example, you'll only be able to serve a certain number of customers. You can hire more instructors and expand to more locations, but your margins will remain fairly low and you'll never reach a point where a core group of talented people can provide something of value to millions of separate clients, as software engineers are able to do. A good startup should have the potential for great scale built into its first design. Twitter already has more than 250 million users today. It doesn't need to add too many customized features in order to acquire more, and there's no inherent reason why it should ever stop growing.

8. Branding

A company has a monopoly on its own brand by definition, so creating a strong brand is a powerful way to claim a monopoly. Today's strongest tech brand is Apple: the attractive looks and carefully chosen materials of products like the iPhone and MacBook, the Apple Stores' sleek minimalist design and close control over the consumer experience, the omnipresent advertising campaigns, the price positioning as a maker of premium goods, and the lingering nimbus of Steve Jobs's personal charisma all contribute to a perception that Apple offers products so good as to constitute a category of their own.

Many have tried to learn from Apple's success: paid advertising, branded stores, luxurious materials, playful keynote speeches, high prices, and even minimalist design are all susceptible to imitation. But these techniques for polishing the surface don't work without a strong underlying substance. Apple has a complex suite of proprietary technologies, both in hardware (like superior touchscreen materials) and software (like touchscreen interfaces purpose-designed for specific materials). It manufactures products at a scale large enough to dominate pricing for the materials it buys. And it enjoys strong network effects from its content ecosystem: thousands of developers write software for Apple devices because that's where hundreds of millions of users are, and those users stay on the platform because it's where the apps are.

These other monopolistic advantages are less obvious than Apple's sparkling brand, but they are the fundamentals that let the branding effectively reinforce Apple's monopoly.

Beginning with brand rather than substance is dangerous. Ever since Marissa Mayer became CEO of Yahoo! in mid-2012, she has worked to revive the once-popular internet giant by making it cool again. In a single tweet, Yahoo! summarized Mayer's plan as a chain reaction of "people then products then traffic then revenue." The people are supposed to come for the coolness: Yahoo! demonstrated design awareness by overhauling its logo, it asserted youthful relevance by acquiring hot startups like Tumblr, and it has gained media attention for Mayer's own star power. **But the big question is what products Yahoo! will actually create.**

When Steve Jobs returned to Apple, he didn't just make Apple a cool place to work; he slashed product lines to focus on the handful of opportunities for 10x improvements. No technology company can be built on branding alone.

Zero to One by Peter Thiel

BUILDING A MONOPOLY

Brand, scale, network effects, and technology in some combination define a monopoly; but to get them to work, you need to choose your market carefully and expand deliberately.

Start Small and Monopolize

Every startup is small at the start. Every monopoly dominates a large share of its market. Therefore, every startup should start with a very small market. Always err on the side of starting too small. The reason is simple: it's easier to dominate a small market than a large one. If you think your initial market might be too big, it almost certainly is.

Small doesn't mean nonexistent. We made this mistake early on at PayPal. Our first product let people beam money to each other via PalmPilots, but as nobody needed our product, so we had no customers.

With that lesson learned, we set our sights on eBay auctions, where we found our first success. In late 1999, eBay had a few thousand high-volume "PowerSellers," and after only three months of dedicated effort, we were serving 25% of them. It was much easier to reach a few thousand people who really needed our product than to try to compete for the attention of millions of scattered individuals.

The perfect target market for a startup is a small group of particular people concentrated together and served by few or no competitors. Any big market is a bad choice, and a big market already served by competing companies is even worse. This is why it's always a red flag when entrepreneurs talk about getting 1% of a $100 billion market. In practice, a large market will either lack a

good starting point or it will be open to competition, so it's hard to ever reach that 1%. And even if you do succeed in gaining a small foothold, you'll have to be satisfied with keeping the lights on: cutthroat competition means your profits will be zero.

Scaling Up

Once you create and dominate a niche market, then you should gradually expand into related and slightly broader markets. Amazon shows how it can be done. Jeff Bezos's founding vision was to dominate all of online retail, but he very deliberately started with books. There were millions of books to catalog, but they all had roughly the same shape, they were easy to ship, and some of the most rarely sold books—those least profitable for any retail store to keep in stock—also drew the most enthusiastic customers. Amazon became the dominant solution for anyone located far from a bookstore or seeking something unusual. Amazon then had two options: expand the number of people who read books, or expand to adjacent markets. They chose the latter, starting with the most similar markets: CDs, videos, and software. Amazon continued to add categories gradually until it had become the world's general store. The name itself brilliantly encapsulated the company's scaling strategy. The biodiversity of the Amazon rain forest reflected Amazon's first goal of cataloging every book in the world, and now it stands for every kind of thing in the world, period.

Sequencing markets correctly is underrated, and it takes discipline to expand gradually. The most successful companies make the core progression—to first dominate a specific niche and then scale to adjacent markets—a part of their founding narrative.

Don't Disrupt

Silicon Valley has become obsessed with "disruption." Originally, "disruption" was a term of art to describe how a firm can use new technology to introduce a low-end product at low prices, improve the product over time, and eventually overtake even the premium products offered by incumbent companies using older technology.

   PayPal could be seen as disruptive, but we didn't try to directly challenge any large competitor. It's true that we took some business away from Visa when we popularized internet payments: you might use PayPal to buy something online instead of using your Visa card to buy it in a store. But since we expanded the market for payments overall, we gave Visa far more business than we took. The overall dynamic was net positive. **As you craft a plan to expand to adjacent markets, don't disrupt: avoid competition as much as possible.**

THE LAST WILL BE FIRST

You've probably heard about "first mover advantage": if you're the first entrant into a market, you can capture significant market share while competitors scramble to get started. But moving first is a tactic, not a goal.

What really matters is generating cash flows in the future, so being the first mover doesn't do you any good if someone else comes along and unseats you. It's much better to be the last mover—that is, to make the last great development in a specific market and enjoy years or even decades of monopoly profits.

The way to do that is to dominate a small niche and scale up from there, toward your ambitious long-term vision.

In this one particular at least, business is like chess. Grandmaster José Raúl Capablanca put it well: to succeed, "you must study the endgame before everything else."

Chapter 6.
YOU ARE NOT A LOTTERY TICKET

"A startup is the largest **group of people** you can convince of a plan to **build a different future**."

The most contentious question in business is whether success comes from luck or skill. In January 2013, Jack Dorsey, founder of Twitter and Square, tweeted to his 2 million followers: "Success is never accidental." Most of the replies were unambiguously negative. Referencing the tweet in The Atlantic, reporter Alexis Madrigal wrote that his instinct was to reply: " 'Success is never accidental,' said all multimillionaire white men." It's true that already successful people have an easier time doing new things, whether due to their networks, wealth, or experience. But perhaps we've become too quick to dismiss anyone who claims to have succeeded according to plan.

   Is there a way to settle this debate objectively? Unfortunately not, because companies are not experiments.

To get a scientific answer about Facebook, for example, we'd have to rewind to 2004, create 1,000 copies of the world, and start Facebook in each copy to see how many times it would succeed. But that experiment is impossible.

Every company starts in unique circumstances, and every company starts only once. Statistics doesn't work when the sample size is one.

From the Renaissance and the Enlightenment to the mid-20th century, luck was something to be mastered, dominated, and controlled; everyone agreed that you should do what you could, not focus on what you couldn't. Ralph Waldo Emerson captured this ethos when he wrote: "Shallow men believe in luck, believe in circumstances.... Strong men believe in cause and effect." In 1912, after he became the first explorer to reach the South Pole, Roald Amundsen wrote: **"Victory awaits him who has everything in order—luck, people call it."** No one pretended that misfortune didn't exist, but **prior generations believed in making their own luck by working hard.**

Did Bill Gates simply win the intelligence lottery? Was Sheryl Sandberg born with a silver spoon, or did she "lean in"? When we debate historical questions like these, luck is in the past tense. Far more important are questions about the future: is it a matter of chance or design?

CAN YOU CONTROL YOUR FUTURE?

You can expect the future to take a definite form or you can treat it as hazily uncertain.

If you treat the future as something definite, it makes sense to understand it in advance and to work to shape it.

Definite Optimism

To a definite optimist, the future will be better than the present if he plans and works to make it better.

From the 17th century through the 1950s and '60s, definite optimists led the Western world. Scientists, engineers, doctors, and businessmen made the world richer, healthier, and more long-lived than previously imaginable. As Karl Marx and Friedrich Engels saw clearly, the 19th-century business class created more massive and more colossal productive forces than all preceding generations together.

While a definitely optimistic future would need engineers to design underwater cities and settlements in space, an indefinitely optimistic future calls for more bankers and lawyers. Only in a definite future is money a means to an end, not the end itself. We are more fascinated today by statistical predictions of what the country will be thinking in a few weeks' time than by **visionary predictions of what the country will look like 10 or 20 years from**

now. Definite optimism works when you build the future you envision. Definite pessimism works by building what can be copied without expecting anything new.

A startup is the largest endeavor over which you can have definite mastery and a company is the strangest place of all for an indefinite optimist: why should you expect your own business to succeed without a plan to make it happen? Darwinism may be a fine theory in other contexts, but in startups, intelligent design works best. We have to find our way back to a definite future, and **the Western world needs nothing short of a cultural revolution to do it.**

Chapter 7.

Follow The Money

In 1906, economist Vilfredo Pareto discovered what became the "Pareto principle," or the 80-20 rule, when he noticed that 20% of the people owned 80% of the land in Italy—a phenomenon that he found just as natural as the fact that 20% of the peapods in his garden produced 80% of the peas. This extraordinarily stark pattern, in which a small few radically outstrip all rivals, surrounds us everywhere in the natural and social world. The most destructive earthquakes are many times more powerful than all smaller earthquakes combined. The biggest cities dwarf all mere towns put together. **And monopoly businesses capture more value than millions of undifferentiated competitors.** The power law—so named because exponential equations describe severely unequal distributions—is the law of the universe. It defines our surroundings so completely that we usually don't even see it.

This chapter shows how the power law becomes visible when you follow the money:

In venture capital, where investors try to profit from exponential growth in early-stage companies, a few companies attain exponentially greater value than all others.

Most businesses never need to deal with venture capital, but everyone needs to know exactly one thing that even venture capitalists struggle to understand: **we don't live in a normal world; we live under a power law.**

THE POWER LAW OF VENTURE CAPITAL

Venture capitalists aim to identify, fund, and profit from promising early-stage companies. They raise money from institutions and wealthy people, pool it into a fund, and invest in technology companies that they believe will become more valuable. If they turn out to be right, they take a cut of the returns —**usually 20%.** A venture fund makes money when the companies in its portfolio become more valuable and either go public or get bought by larger companies. Venture funds usually have a **10-year lifespan** since it takes time for successful companies to grow and "exit."

But most venture-backed companies don't IPO or get acquired; most fail, usually soon after they start. Due to these early failures, a venture fund typically loses money at first. VCs hope the value of the fund will increase dramatically in a few years' time, to break-even and beyond, when the successful portfolio companies hit their exponential growth spurts and start to scale

The big question is when this takeoff will happen. For most funds, the answer is never. **Most startups fail, and most funds fail with them.** Every VC knows that his task is to find the companies that will succeed. However, even seasoned investors understand this phenomenon

only superficially. They know companies are different, but they underestimate the degree of difference.

The error lies in expecting that venture returns will be normally distributed: that is, bad companies will fail, mediocre ones will stay flat, and good ones will return 2x or even 4x. Assuming this bland pattern, investors assemble a diversified portfolio and hope that winners counterbalance losers. **But this "spray and pray" approach usually produces an entire portfolio of flops, with no hits at all. This is because venture returns don't follow a normal distribution overall. Rather;**

They follow a power law: a small handful of companies radically outperform all others.

If you focus on diversification instead of single-minded pursuit of the very few companies that can become overwhelmingly valuable, you'll miss those rare companies in the first place.

Our results at Founders Fund illustrate this skewed pattern: **Facebook, the best investment in our 2005 fund, returned more than all the others combined. Palantir, the second-best investment, is set to return more than the sum of every other investment aside from Facebook.** This highly uneven pattern is not unusual: we see it in all our other funds as well.

The biggest secret in venture capital is that the best investment in a successful fund equals or outperforms the entire rest of the fund combined.

This implies two very strange rules for VCs.

First, only invest in companies that have the potential to return the value of the entire fund.

This is a scary rule, because it eliminates the vast majority of possible investments. (Even quite successful companies usually succeed on a more humble scale.) This leads to;

Rule number two: Because rule number one is so restrictive, there can't be any other rules.

Consider what happens when you break the first rule. Andreessen Horowitz invested $250,000 in Instagram in 2010. When Facebook bought Instagram just two years later for $1 billion, Andreessen netted $78 million—a 312x return in less than two years. That's a

phenomenal return, befitting the firm's reputation as one of the Valley's best. But in a weird way it's not nearly enough, because Andreessen Horowitz has a $1.5 billion fund: if they only wrote $250,000 checks, they would need to find 19 Instagrams just to break even.

This is why investors typically put a lot more money into any company worth funding.

(And to be fair, Andreessen would have invested more in Instagram's later rounds had it not been conflicted out by a previous investment.)

VCs must find the handful of companies that will successfully go from 0 to 1 and then back them with every resource.

Of course, no one can know with certainty ex ante which companies will succeed, so even the best VC firms have a "portfolio." However;

Every single company in a good venture portfolio must have the potential to succeed at vast scale.

At Founders Fund, we focus on five to seven companies in a fund, each of which we think could become a multibillion-dollar business based on its unique fundamentals.

WHY PEOPLE DON'T SEE THE POWER LAW

Why would professional VCs, of all people, fail to see the power law? For one thing, it only becomes clear over time, and even technology investors too often live in the present. **Imagine a firm invests in 10 companies with the potential to become monopolies**—already an unusually disciplined portfolio. **Those companies will look very similar in the early stages before exponential growth.**
   Over the next few years, some companies will fail while others begin to succeed; valuations will diverge, but **the difference between exponential growth and linear growth will be unclear.**

After 10 years, however, the portfolio won't be divided between winners and losers; it will be split between one dominant investment and everything else

But no matter how unambiguous the end result of the power law, it doesn't reflect daily experience. Since investors spend most of their time making new investments and attending to companies in their early stages, most of the companies they work with are by definition average. Most of the differences that investors and entrepreneurs perceive every day are between relative levels of success, not between exponential dominance and failure. And since nobody wants to give up on an investment, VCs usually spend even more time on the most problematic companies than they do on the most obviously successful.
   If even investors specializing in exponentially growing startups miss the power law, it's not surprising that most everyone else misses it, too. **Power law distributions are so big that**

they hide in plain sight. For example, when most people outside Silicon Valley think of venture capital, they might picture a small and quirky coterie—like ABC's Shark Tank, only without commercials. After all;

less than 1% of new businesses started each year in the U.S. receive venture funding, and total VC investment accounts for less than 0.2% of GDP.

But the results of those investments disproportionately propel the entire economy.

Venture-backed companies create 11% of all private sector jobs. They generate annual revenues equivalent to an astounding 21% of GDP. Indeed, the dozen largest tech companies were all venture-backed. Together those 12 companies are worth more than $2 trillion, more than all other tech companies combined.

WHAT TO DO WITH THE POWER LAW

If you do start your own company, you must remember the power law to operate it well. The most important things are singular:

- One market will probably be better than all others.
- One distribution strategy usually dominates all others.
- Time and decision-making themselves follow a power law, and some moments matter far more than others.

However, you can't trust a world that denies the power law to accurately frame your decisions for you, so what's most important is rarely obvious. It might even be secret. But in a power law world, you can't afford not to think hard about where your actions will fall on the curve.

Zero to One by Peter Thiel
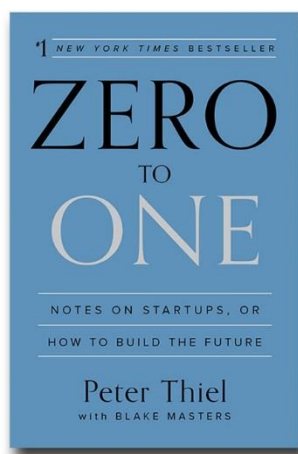
Chapter 8.

SECRETS

Every one of today's most famous and familiar ideas was once unknown and unsuspected. The mathematical relationship between a triangle's sides, for example, was secret for millennia. Pythagoras had to think hard to discover it. If you wanted in on Pythagoras's new discovery, joining his strange vegetarian cult was the best way to learn about it. Today, his geometry has become a convention—a simple truth we teach to grade schoolers.

A conventional truth can be important—it's essential to learn elementary mathematics, for example—but it won't give you an edge. It's not a secret.

Remember our contrarian question: what important truth do very few people agree with you on? If we already understand as much of the natural world as we ever will—if all of today's conventional ideas are already enlightened, and if everything has already been done—then there are no good answers. **Contrarian thinking doesn't make any sense unless the world still has secrets left to give up.**

Of course, there are many things we don't yet understand, but some of those things may be impossible to figure out—mysteries rather than secrets. For example, **string theory** describes the physics of the universe in terms of vibrating one-dimensional objects called "strings." Is string theory true? You can't really design experiments to test it. Very few people, if any, could ever understand all its implications. But is that just because it's difficult? Or is it an impossible mystery? The difference matters. **You can achieve difficult things, but you can't achieve the impossible.**

Recall the business version of our contrarian question: **what valuable company is nobody building? Every correct answer is necessarily a secret: something important and unknown, something hard to do but doable.** If there are many secrets left in the world, there are probably many worldchanging companies yet to be started. This chapter will help you think about secrets and how to find them.

WHY AREN'T PEOPLE LOOKING FOR SECRETS?

In the modern religion of environmentalism, the easy truth is that we must protect the environment. Beyond that, Mother Nature knows best, and she cannot be questioned. Free marketeers worship a similar logic. The value of things is set by the market. Even a child can look up stock quotes. But whether those prices make sense is not to be second-guessed; the market knows far more than you ever could.

Why has so much of our society come to believe that there are no hard secrets left? It might start with geography. There are no blank spaces left on the map anymore. If you grew up in the 18th century, there were still new places to go. After hearing tales of foreign adventure, you could become an explorer yourself.

Along with the natural fact that physical frontiers have receded, four social trends have conspired to root out belief in secrets. **First is incrementalism**. From an early age, we are taught that the right way to do things is to proceed one very small step at a time, day by day, grade by grade. If you overachieve and end up learning something that's not on the test, you won't receive credit for it. But in exchange for doing exactly what's asked of you (and for doing it just a bit better than your peers), you'll get an A. This process extends all the way up through the tenure track, which is why academics usually chase large numbers of trivial publications instead of new frontiers.

Second is risk aversion. People are scared of secrets because they are scared of being wrong. By definition, a secret hasn't been vetted by the mainstream. If your goal is to never make a mistake in your life, you shouldn't look for secrets. The prospect of being lonely but right—dedicating your life to something that no one else believes in—is already hard. The prospect of being lonely and wrong can be unbearable.

Third is complacency. Social elites have the most freedom and ability to explore new thinking, but they seem to believe in secrets the least. Why search for a new secret if you can comfortably collect rents on everything that has already been done? Every fall, the deans at top law schools and business schools welcome the incoming class with the same implicit message: "You got into this elite institution. Your worries are over. You're set for life." But that's probably the kind of thing that's true only if you don't believe it.

Fourth is "flatness." As globalization advances, people perceive the world as one homogeneous, highly competitive marketplace: the world is "flat." Given that assumption, anyone who might have had the ambition to look for a secret will first ask himself: **if it were possible to discover something new, wouldn't someone from the faceless global talent pool of smarter and more creative people have found it already?** This voice of doubt can dissuade people from even starting to look for secrets in a world that seems too big a place for any individual to contribute something unique.

Very few people take unorthodox ideas seriously today, and the mainstream sees that as a sign of progress. We can be glad that there are fewer crazy cults now, yet that gain has come at great cost: **we have given up our sense of wonder at secrets left to be discovered.**

In economics, disbelief in secrets leads to faith in efficient markets. But the existence of financial bubbles shows that markets can have extraordinary inefficiencies. (And the more people believe in efficiency, the bigger the bubbles get.) In 1999, nobody wanted to believe that the internet was irrationally overvalued. The same was true of housing in 2005: Fed chairman Alan Greenspan had to acknowledge some "signs of froth in local markets" but stated that "a bubble in home prices for the nation as a whole does not appear likely." The market reflected all knowable information and couldn't be questioned. **Then home prices fell across the country, and the financial crisis of 2008 wiped out trillions. The future turned out to hold many secrets that economists could not make vanish simply by ignoring them.**

THE CASE FOR SECRETS

You can't find secrets without looking for them. Andrew Wiles demonstrated this when he proved Fermat's Last Theorem after 358 years of fruitless inquiry by other mathematicians—

the kind of sustained failure that might have suggested an inherently impossible task. Pierre de Fermat had conjectured in 1637 that no integers a, b, and c could satisfy the equation a n + b n = c n for any integer n greater than 2. He claimed to have a proof, but he died without writing it down, so his conjecture long remained a major unsolved problem in mathematics. Wiles started working on it in 1986, but he kept it a secret until 1993, when he knew he was nearing a solution. After nine years of hard work, Wiles proved the conjecture in 1995. He needed brilliance to succeed, but **he also needed a faith in secrets.**

If you think something hard is impossible, you'll never even start trying to achieve it. Belief in secrets is an effective truth.

The actual truth is that there are many more secrets left to find, but they will yield only to relentless searchers. There is more to do in science, medicine, engineering, and in technology of all kinds.

HOW TO FIND SECRETS

There are two kinds of secrets: secrets of nature and secrets about people. Natural secrets exist all around us; to find them, one must study some undiscovered aspect of the physical world. Secrets about people are different: they are things that people don't know about themselves or things they hide because they don't want others to know. **So when thinking about what kind of company to build, there are two distinct questions to ask: What secrets is nature not telling you? What secrets are people not telling you?**

It's easy to assume that natural secrets are the most important: the people who look for them can sound intimidatingly authoritative. This is why physics PhDs are notoriously difficult to work with— because they know the most fundamental truths, they think they know all truths. But does understanding electromagnetic theory automatically make you a great marriage counselor? Does a gravity theorist know more about your business than you do?

Consider the monopoly secret again: competition and capitalism are opposites.

If you didn't already know it, you could discover it the natural, empirical way: do a quantitative study of corporate profits and you'll see they're eliminated by competition. But you could also take the human approach and ask: what are people running companies not allowed to say? **You would notice that monopolists downplay their monopoly status to avoid scrutiny, while competitive firms strategically exaggerate their uniqueness.** The differences between firms only seem small on the surface; in fact, they are enormous.

The best place to look for secrets is where no one else is looking.

Most people think only in terms of what they've been taught; schooling itself aims to impart conventional wisdom. So you might ask: are there any fields that matter but haven't been standardized and institutionalized?

WHAT TO DO WITH SECRETS

If you find a secret, you face a choice: Do you tell anyone? Or do you keep it to yourself?
It depends on the secret: some are more dangerous than others. **Unless you have perfectly conventional beliefs, it's rarely a good idea to tell everybody everything that you know.**

So who do you tell? Whoever you need to, and no more. In practice, there's always a golden mean between telling nobody and telling everybody—and that's a company.

The best entrepreneurs know this: every great business is built around a secret that's hidden from the outside. A great company is a conspiracy to change the world; when you share your secret, the recipient becomes a fellow conspirator.

As Tolkien wrote in **The Lord of the Rings:**

> *The Road goes ever on and on*
> *Down from the door where it began.*

Life is a long journey; the road marked out by the steps of previous travelers has no end in sight. But later on in the tale, another verse appears:

> *Still round the corner there may wait*
> *A new road or a secret gate,*
> *And though we pass them by today,*
> *Tomorrow we may come this way*
> *And take the hidden paths that run*
> *Towards the Moon or to the Sun.*

The road doesn't have to be infinite after all. Take the hidden paths.

A Brief aside on String Theory
Of course, there are many things we don't yet understand, but some of those things may be impossible to figure out—mysteries rather than secrets. For example, **string theory** describes

the physics of the universe in terms of vibrating one-dimensional objects called "strings." Is string theory true? You can't really design experiments to test it. Very few people, if any, could ever understand all its implications. But is that just because it's difficult? Or is it an impossible mystery? The difference matters. **You can achieve difficult things, but you can't achieve the impossible.**

11 Reasons Why
S-World Companies are more
Efficient and Profitable

1. **Sales and Marketing – Cost ZERO**
   This can easily cost 50% of cash flow, for my company Cape Villas, my AdWords spend so far is close to half a million dollars.

   But at the Ťender level, there is no sales or marketing, the market is in the distribution of the $8,569,612,500 between 01-Jan-25 and 11-Jul-25. In Ťenders

   Each company, will be able to do sales and marketing to sell to non-Network Malawi and the rest of the world, and we're going to put a lot into that, but at the Ťender stage, we don't need sales or marketing because the Net-Zero DCA software works out the optimum supply/demand and the cost. And TWF need only concentrate on making its products to get paid.
   Note also that because supply shocks can ripple and cause chaos, TWF can only sell outside the network after they have a stock of windows that would supply the network for six months or a year.

2. **Warehousing – Cost ZERO or LOW**
   As part of the setup of TWF, it will own its own warehousing, either at the site or a communal warehouse nearby its factory.

3. **Rent - Zero**
   As part of the setup, TWF will own its own offices and industrial buildings.

4. **Business Rates and Property Taxes – Cost Zero**
   All Business Rates and Property Taxes are Zero because of Tax Symmetry

5. **VAT – Cost Zero**
   This is a big one, where competitors would pay 16.5%, TWF pays nothing on inner network sales because of Tax Symmetry

6. **All Other taxes – Cost Zero**
   Because of Tax Symmetry

7. **CFO – Chief Financial Officer, Accounting, Auditing, Tax Accounting – Cost Low**
   The TBS™ – Total Business Systems handles most accounting needs
   I can tell you for sure that a junior accountant following a well-designed system can beat a CFO with 40 years' experience but no system - hands down, every day of the week. All that is needed is one junior accountant for several companies.

8. **Other C-Suite Personnel – Less needed**
   Again because of the TBS ™ (which in this chapter presents about 70 ways to make

money, save money or avoid landmines) For the same reasons as above and in particular the S-World [CRM Nudge AI](), [Company Controller]() and [S-World UCS Hawthorn](), there is far less need for C Suite and managerial staff.

9. **Economies of scale**

   A competitor to TWF will not nearly have the number of orders TWF has, and with limited product types available TWF has demand for tens of thousands, then a few years later hundreds of thousands, and a decade on millions of orders, lowering manufacturing costs, and in some or many cases lowering costs by a lot.

10. **Network effects**

11. **Efficient Suppliers**

    Relative to recycle-Éfficiency 90 to 100% of the time, all suppliers and service companies will be from the Grand Śpin Network, all of whom have the same advantages, lowing cost, increasing quality all providing clear clean Carbon Traffic Light (CTL) scores

12. **Carbon Traffic Light Scores**

    The point here is that we have the intention to create a global industry standard for Carbon emissions, biodegradable plastics, rare resource use and contributions to special projects.

    By placing all S-World companies very good scores (relative to most of the West and China), network goods and serves will be trusted on the global markets as Green, which will be increased demand.

Chapter 9
The Suburb Sale | Grand Śpin Networks

The suburb sale

A Quick introduction to S-World VSN

S-World VSN™

Virtual Social Network

Where you are

Where your friends are

Where you'd like to go

And what you'd like to see

S-World VSN™ Where shall we go today?

Rendering S-World VSN™

Will Wright - MAXIS

The SIMS

History 3, the simulation that affords the previous special projects is a cautious simulation.

Whereas history 2. www.angeltheory.org/video/25 (27 minutes) (27th December 2018) was more powerful, **taking Malawi from Zero to One by 2050** not, 2080 and I added two serious recessions and a depression so harsh that all revenue stopped and recovered over 5 years. But each year managed to increase cash flow, by cutting É to 100% (a complete monopoly) and increasing Śpin.

On reflection however I could see that anyone looking critically would see the trade figures and ask me to qualify, and this was not an argument I wanted to have, as trade was not essential it was just a bonus. Another area where I expected push back, was starting at Śpin 8, this was a genuine problem.

In History 3. I simply remove all trade except a token $1 million entry, which could be increased per the user's preference, effectively removing revenue from trade, and so no trade arguments. I also starred at Śpin 1 and increased 1 Śpin per year. This removed the potential argument and made the Śpin system easier to understand. Albeit one can still argue that reaching an E of 99% is hard.

Given we could find the initial investment (which this whole book is about) this left three inflows to justify; Aid, Angel City 1 real estate sold, and critically Network City Suburbs sold.

Aid

Because we can Śpin the inflows from Aid, and in software design S-World AE (Aid Efficiency) we will be able to track what a donation paid for, and see actual effects for years to come, investing in S-World AE will see more of the donation accounted for that was paid. Where all charities lose money to admit and distribution, S-World AE offers the opposite, so each year one sees more and more spent on charitable spending from the original donation. Give a million dollars today and create tens of millions of spending in the future because of the spin

So of the +/- $250 billion spend on Aid per year, I believe my Aid received staring at $1billion in 2024 rising to 2.5 billion in 2027 the decreeing to zero from 2032 is an underestimation of what we could receive.

Also, show 2080 cash flow with and without the Aid, I estimate its 1%

Angel City 1 real estate sold

The commercial, residential and industrial real estate sold in Angel City 1 accounts for about 8% of revenue. Before I have created the Š-ŔÉŚ™ software and combined it with a Virtual representation of the future City – Angel City 1. I'm not in the mood to justify the real estate sold, so in general, I mentally remove it. And we can do this approximately on the spreadsheet, by taking the 2080 Cash Flow (Cell P:2798) of $8,204,082,483,521.00, then going to 2024 and change the Angel City 1 figure to zero, then go back to 2080 Cash Flow (Cell P:2798) of $7,573,791,988,977.00 which is a loss of 8.3%.

This being so we can mentally remove the variable of selling Real Estate in Angel City 1, but removing 8.3% from our +/- 24 trillion dollars which leaves us with about $22 trillion.

The Suburb Sale

The Suburb Sale then accounts for about 91% of all revenue, the idea of the suburb sale came from the MARS Resort 1 experiment and allows investors to own a suburb and business within it. The business that will become an integral part of S-World economics boosted by Š-ŔÉŚ™ Financial Engineering.

In History 3 in addition to Angel City 1, I created 3 Grand Śpin Networks, in 2024, 2032 and 2048 (and note I mistakenly wrote 2040, not 2048 in video 34 G: www.angeltheory.org/video/34g.

I cost each city/suburb at one billion US dollars per year, which will be invested into the

businesses that operate from the city, each business will own its own premises, this is a key/critical part of the business plan, because a business with no rent to pay, has a distinct financial advantage against a rival that did have rent to pay.

In the world of big business $1 billion a year is affordable for the right investment, add to big business VCs and other financings such as sovereign wealth funds, and university endowments and there are hundreds of potential investors. For now, let's say we first did a deal with Yale because the chair of the fund; David F. Swensen is said to be the best in the business, and William Nordhaus and students are desired to assist with the Carbon Traffic lights and in general directing the ecological Special Project allocations.

However, I can equally see Microsoft, Facebook, Virgin, Google or Tesla developing their own suburbs. In the original full length 64 Reasons Why, we see the dynamic comparative advantage software (S-World Net-Zero DCA Soft.) make the following cash flow allocations. Each cell you see is about 64 companies. And we see that Tesla has been assigned 6 cubes, Microsoft 2, Facebook 2, Google 1 and SpaceX 1.   =

THE MALAWI **Grand Śpin Network** 2025
64 Cube – Industries Map

Government Net-Zero Infrastructure	Government Electronic Cars	Government Family Planning	Government Healthcare	Tesla Gigafactory Network City	Tesla Gigafactory Network City	Tesla S-World UCS™ Angel City 1	Marketing Services City 1 & 2
Government Solar Energy Arrays	Government Solar Energy Infrastructure	Government Net-Zero Infrastructure	Government Properties Developed	Tesla Gigafactory Network City	Tesla Gigafactory Network City	Virgin Angel City 1	Retail Services City 1 & 2
Government S-World Food	Government S-World Water	University Suburbs	FIFA WC Bid Infrastructure & Stadiums	Tesla Gigafactory Network City	Villa Secrets Berkshire Hathaway	Virgin Network City	Travel Services City 1 & 2
Investor's Sienna's Forests	Microsoft S-World TBS™ Angel City 1	Facebook S-World VSN™ Angel City 1	Google VSN™ Tesla GT AC 1	Soft Dev. Angel City 1	Soft Dev. Angel City 1	Peet Tent	Peet Tent
Investor's Sienna's Forests	Microsoft Net-Zero DCA™ Angel City 1	Facebook S-Web™ Angel City 1	SpaceX S-World UCS™ Angel City 1	Healthcare City 1 & 2	Waste Disposal City 1 & 2	The Arts City 1 & 2	Entertainment City 1 & 2
Sienna's Paid2Learn Forests	Spartan Contract Paid**2**Learn	Spartan Contract Paid**2**Learn	Spartan Contract Paid**2**Learn	Spartan Electronic Cars	Spartan Electronic Cars	Solar or Nuclear Power	S-World Film City 1 & 2
Spartan Housing Forests	Net-Zero Spartan Housing	Net-Zero Spartan Housing	Net-Zero Spartan Housing	S-World VSN™ Virtual Education	Advancing Human Potential	S-World Water	S-World Water
Sienna's Forests Network City	Network City Infrastructure	Network City Real Estate	Network City Industry	Net-Zero Machinery Network City	Their Oceans Net-Zero Plastics (AC1)	Experience Africa Conservation	Experience Africa Conservation

Above we see how the different networks of companies (each its own monopoly) in the Malawi Grand Śpin Network may look like in 2025. Each cube represents 64 companies in a network and receives 1.5625% of Š-ŔÉŚ™ cash flow. In 2025 about a third of these companies will be in Grand Śpin Network 1, another third in Angel City 1 and another third may be virtual or spread throughout Malawi and maybe Malawi's neighbours. Because of the POP rule, how one measures progress, not in profits alone but equally in how many businesses and what real estate owned.

POP is presented in detail in the original 64 Reasons Why, in short, each business has a target, this may be cash flow, gross profit, or other. Let us consider a company in building supply called TWF (The Window Factory) has a cashflow POP point of $1,717,986.92 (D5x2). This will be pre-negotiated and the Inventor, CEO and Board, are all agreed that if cash flow of $1,717,986.92 was made in 2025 all would be pleased, relative to other investment opportunities they had had in their experience.

The next spreadsheet shows us how History 3 will POP develop on its way to 2080

Š-ŔÉŚ™	Financial Engineering						
	Network Credits Ťender	Network Credits Ťender	Network Credits Ťender	Adjusted for Growth	Adjusted for Growth	Div. By	Adjusted for Growth
	Cash Flow	Number of Companies	# of Spartan Contract Labour	Spartan Labour Basic + Bonus1	# of Paid 2 Learn Trainees	Trainees Per 1 Labour	Paid 2 Learn Trainees Basic + Bonus1
2024	$ 5,685,975,000	2,048	65,536	$ 21,690	262,144	4	$ 1,356
2025	$ 14,894,843,486	5,120	163,840	$ 22,173	573,440	3.5	$ 1,584
2028	$ 53,185,830,818	15,565	498,074	$ 24,185	1,494,221	3	$ 2,015
2032	$ 106,194,771,025	24,576	786,432	$ 27,707	2,359,296	3	$ 2,309
2040	$ 431,185,712,853	94,208	3,014,656	$ 24,087	7,536,640	2.5	$ 2,409
2048	$ 867,395,313,639	131,072	4,194,304	$ 27,207	10,485,760	2.5	$ 2,721
2050	$ 1,283,942,425,681	163,840	5,242,880	$ 32,218	10,485,760	2	$ 4,027
2060	$ 2,892,474,879,905	245,760	7,864,320	$ 37,800	15,728,640	2	$ 4,725
2070	$ 5,028,641,551,041	294,912	9,437,184	$ 42,781	16,515,072	1.75	$ 6,112
2080	$ 8,204,082,483,521	327,680	10,485,760	$ 49,072	15,728,640	1.5	$ 8,179

Looking at 2025 we can see a cash flow of $14,894,843,486 between 5120 companies, which equals an aggregate of $2,909,149.12 per company. So, with a POP point of $1,717,986.92 this company creates 1,191,162.20 in POP investment, which is then used to create new companies, and this drives an increase in companies from 2048 in 2024 to 327,680 companies in 2080. The best finical outcome for the investors is to own as many of the 327,680 companies as possible.

For the record, the above spreadsheet is tab; H3) ŠÉŚv5 Jobs and Education on the spreadsheet. On the left, we see the year followed by the cash flow from History 3. The number of companies was added by hand, next, we have some hidden cells, in which cash flow per company is divided by 32 staff, this figure is then adjusted to counter the 2.5% growth in the

global economy which gives us the yellow column, which is the wage (discounted for growth). The dark grey column is then the number of company's times an average of 32 staff. Then two more hidden cells divide salaries by 25%, this is then divided by the light grey column, which essentially divides the 25% by the number of people this will support, four in 2024 and 1.5 in 2080. Last the black column multiples the 25% by the trainees per 1 labour.

Second, to the end, we see the trainee (Paid**2**Learn) multiplier,

In general, whenever a new company is formed, 50% or 75% of its equality will belong to the new personnel, and over time this simple rule is an equality promoter. However, from an investment perspective, my 8 years experience as CEO of an SME with a turnover of $700,000 a year is that if the key personnel had significant equity and everyone had some equity, the business would have done much better, so this loss of equity could, in fact, lead to greater value in the future.

Manging The Scale

The Hard Thing About Hard Things

Building a Business When There Are No Easy Answers

By: Ben Horowitz

"By far the most difficult skill I learned as CEO was the ability to manage my own psychology. Very few people talk about it and I have never read anything on the topic. It's like the fight club of management: The first rule of the CEO psychological meltdown is don't talk about the psychological meltdown. At the risk of violating the sacred rule, I will attempt to describe the condition and prescribe some techniques that helped me. In the end, this is the most personal and important battle that any CEO will face.

The only thing that prepares you to run a company is running a company. This means that you will face a broad set of things that you don't know how to do that require skills you don't have. Nevertheless, everybody will expect you to know how to do them, because, well, you are the CEO.

If you manage a team of ten people, it's quite possible to do so with very few mistakes or bad behaviors. If you manage an organization of one thousand people, it is quite impossible. At a certain size, your company will do things that are so bad that you never imagined that you'd be associated, with that kind of incompetence.

Seeing people fritter away money, waste each other's time, and do sloppy work can make you feel bad. If you are the CEO, it may well make you sick. And to rub salt into the wound and make matters worse, it's your fault.

When people in my company would complain about one thing or another being broken, such as the expense reporting process, I would joke that it was all my fault. The joke was funny, because it wasn't really a joke. Every problem in the company was indeed my fault.

As the founding CEO, every hire and every decision that the company ever made happened under my direction. Unlike a hired gun who comes in and blames all of the problems on the prior regime, there was literally nobody for me to blame.

If someone was promoted for all the wrong reasons, that was my fault. If we missed the quarterly earnings target, that was my fault. If a great engineer quit, that was my fault. If the sales team made unreasonable demands on the product organization, that was my fault. If the product had too many bugs, that was my fault. It kind of sucked to be me.

Given this stress, CEOs often make one of the following two mistakes:

1. They take things too personally.

2. They do not take things personally enough.

Ideally, the CEO will be urgent yet not insane. She will move aggressively and decisively without feeling emotionally culpable. If she can separate the importance of the issues from how she feels about them, she will avoid demonizing her employees or herself.

   IT'S A LONELY JOB

In your darkest moments as CEO, discussing fundamental questions about the viability of your company with your employees can have obvious negative consequences. On the other hand, talking to your board and outside advisers can be fruitless. The knowledge gap between you and them is so vast that you cannot actually bring them fully up to speed in a manner that's useful in making the decision.

You are all alone."

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The Hard Thing About Hard Things | By Ben Horowitz
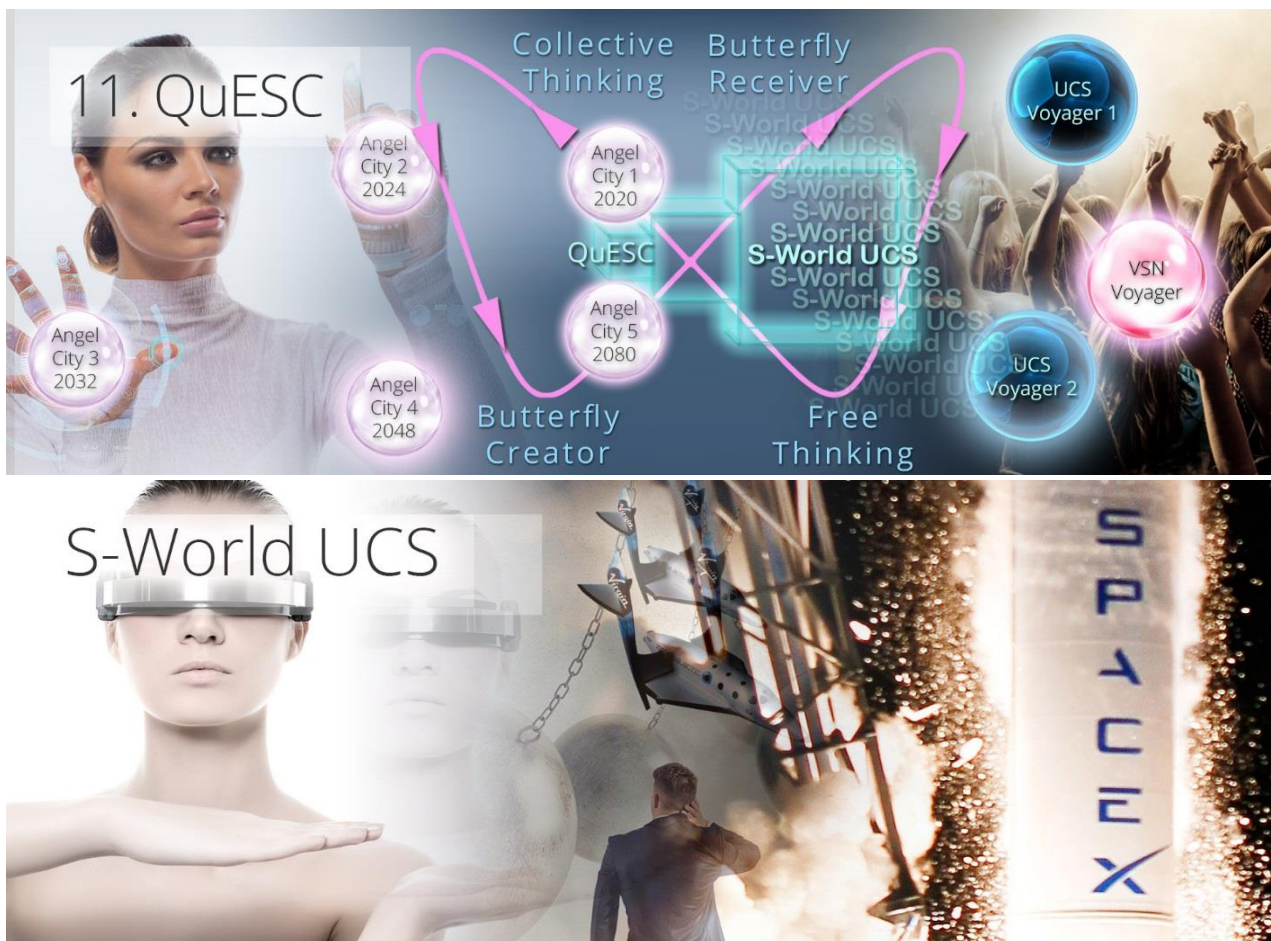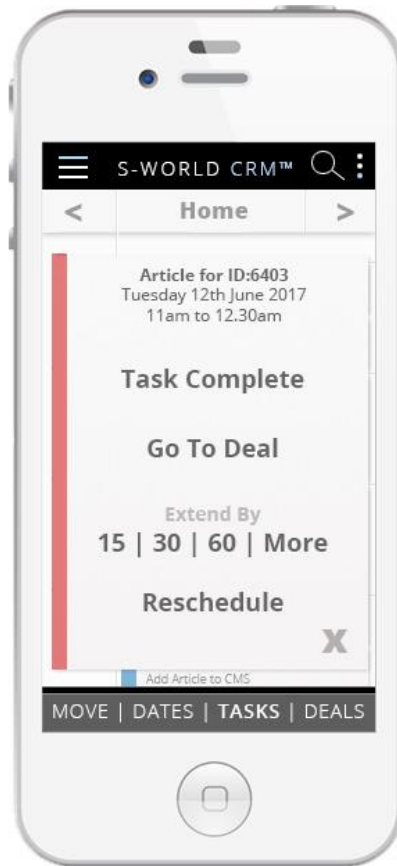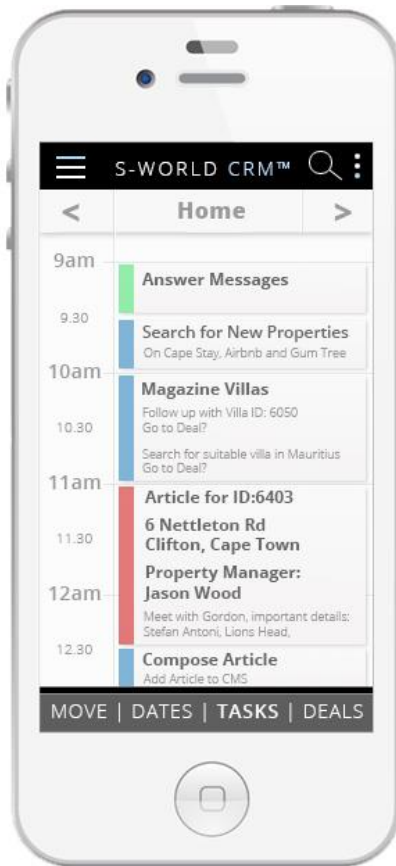
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S-World CC

The Company Controller

Paradigm Shift

Book 4

Part 2

S-World
Villa Secrets

Real Estate Network Strategy

17 Years of Innovative Development

Delivers...

Mandates, Mandates, Mandates

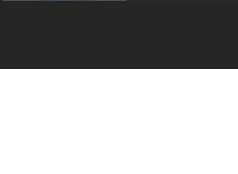A Tale of Two Charter Cities

Infrastructure

S-World CC

The Company Controller

11. QuESC
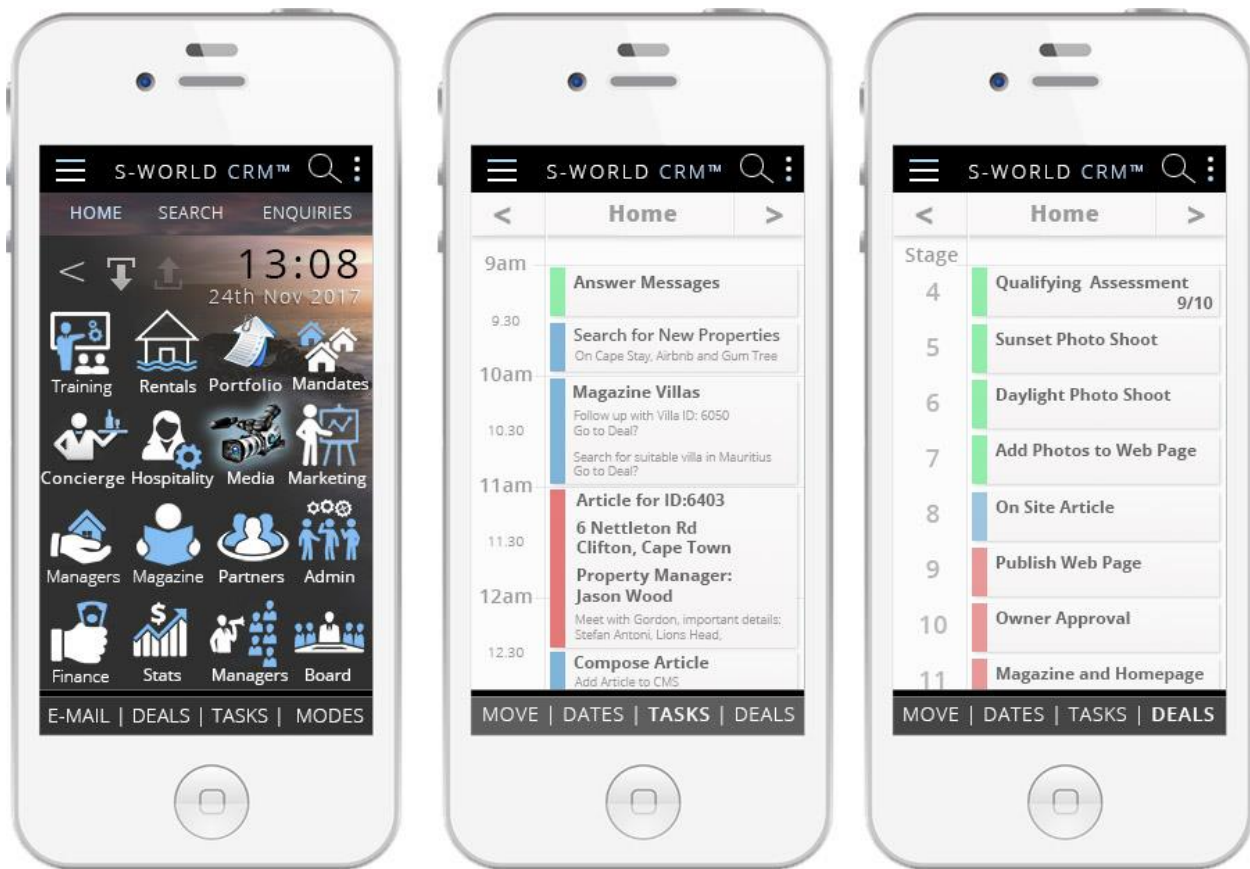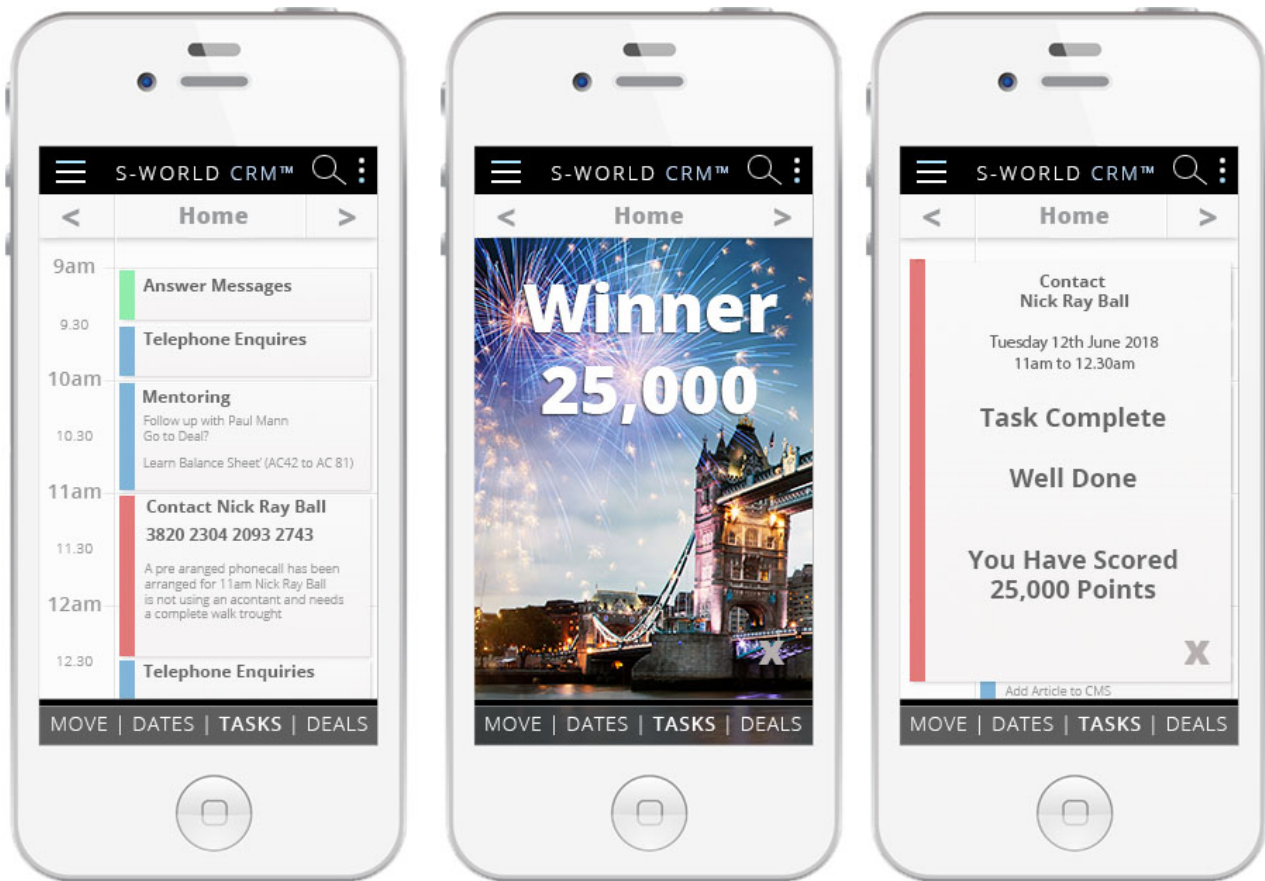
S-World UCS

UCS™ Hawthorne Sales Company Leaders' Board 11.26 am

UCS™ Sales Company Leaders' Board 12.pm - Bonuses Won

Villa Secrets   S-World UCS™ Hawthorne

#1 Richard Okereke
Points: 437,391 | H:8
Today Won: **$1,823**

#2 Caihong Chan
Points: 379,724 | H:3
Today Won: **$726**

#3 Mark Long
Points: 326,845 | H:17
Bonuses Won: **$447**

#4 Monica Knowles
Points: 235,796| H:0
Bonuses Won: **$275**

#5 Ajanlekoko
Points: 183,293 | Handicap: 18 | Won **$172**

#6 Sarah Jones
Points: 164,026| Handicap: 16 | Won **$50**

#7 Monica Belgrave
Points: 132,084 | Handicap: 11| Won **$25**

#8 Mark Gosling
Points: 83,923 | Handicap: 24| Won: **$0**

Leaders' Board: 12.00pm - 24th August 2018   Bonuses Won

S-World UCS™ Hawthorne – Teams Leaders' Board

S-World UCS™ Hawthorne   Teams Leaders' board: 24th August 2018

#1 Team Nash
Points: 284,427,384
Combined Handicap: **179**

#2 Team Jenna
Points: 253,73,943
Combined Handicap: **236**

#3 Team Knowles
Points: 212,263,483
Combined Handicap: **257**

#4 Team Monitha
Points: 245,382,912
Combined Handicap: **273**

#5 Team Krissy
Points: 196,934,628 | C Handicap: **281**

#6 Team Jason
Points: 203,293,481 | C Handicap: **296**

#7 Team Florrick
Points: 172,934,923 | C Handicap: **302**

#8 Team Goodbun
Points: 162,339,283 | C Handicap: **316**

S-World UCS™ Hawthorne for HMRC & Companies House

HMRC & Companies House — S-World BES™ Observer

#1 Mr Joy
Points Today: 125,832
Year Receipts : $252,903,201

#2 Marie Gibson
Points Today: 105,293
Year Receipts : $233,073,122

#3 Tricia Mahoney
Points Today: 98,372
Year Receipts : $153,963,912

#4 Mrs Green
Points Today: 78,244
Year Receipts : $97,629,283

#5 Other
Points Today: 78,309 | Year $53,827,293

#6 Jackie HMRC UST
Points Today: 65,953 | Year $73,293,954

#7 Mrs S Davidge
Points Today: 2,367 | Year $23,872,192

#8 Mrs Dawn Richards
Points Today: -23,962 | Year $ -72,812,843

Leaders' Board: 11:26am - 24th August 2018

Points Today and Total Revenue Assisted
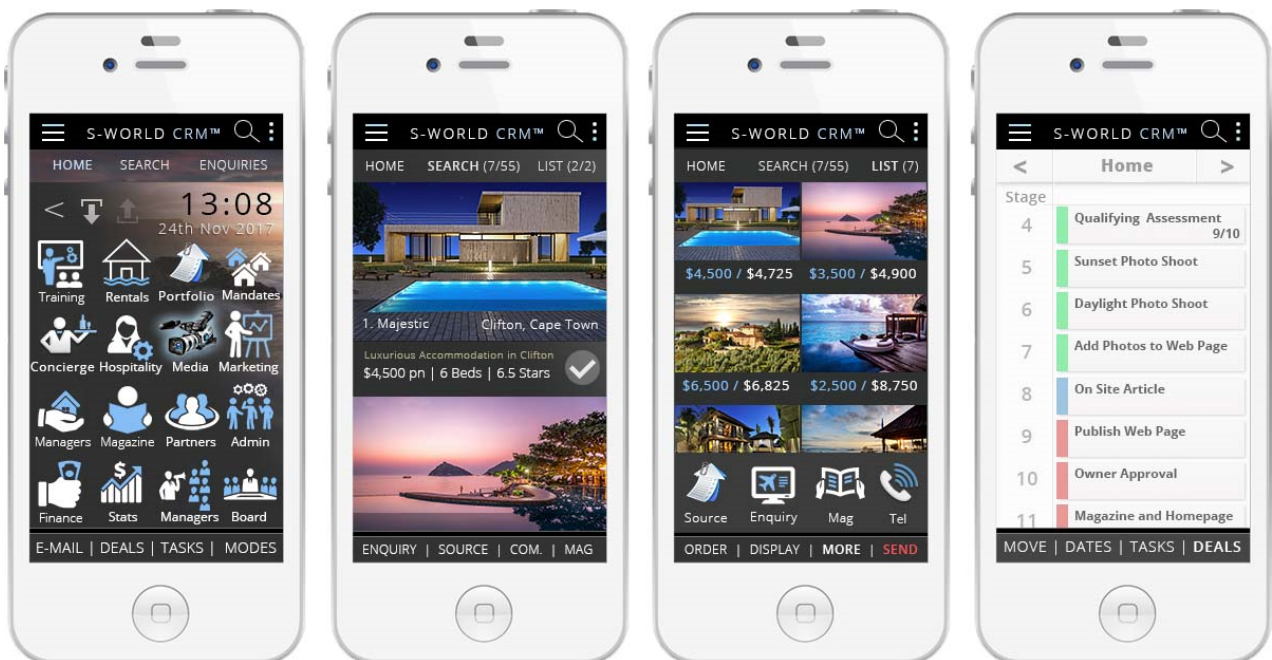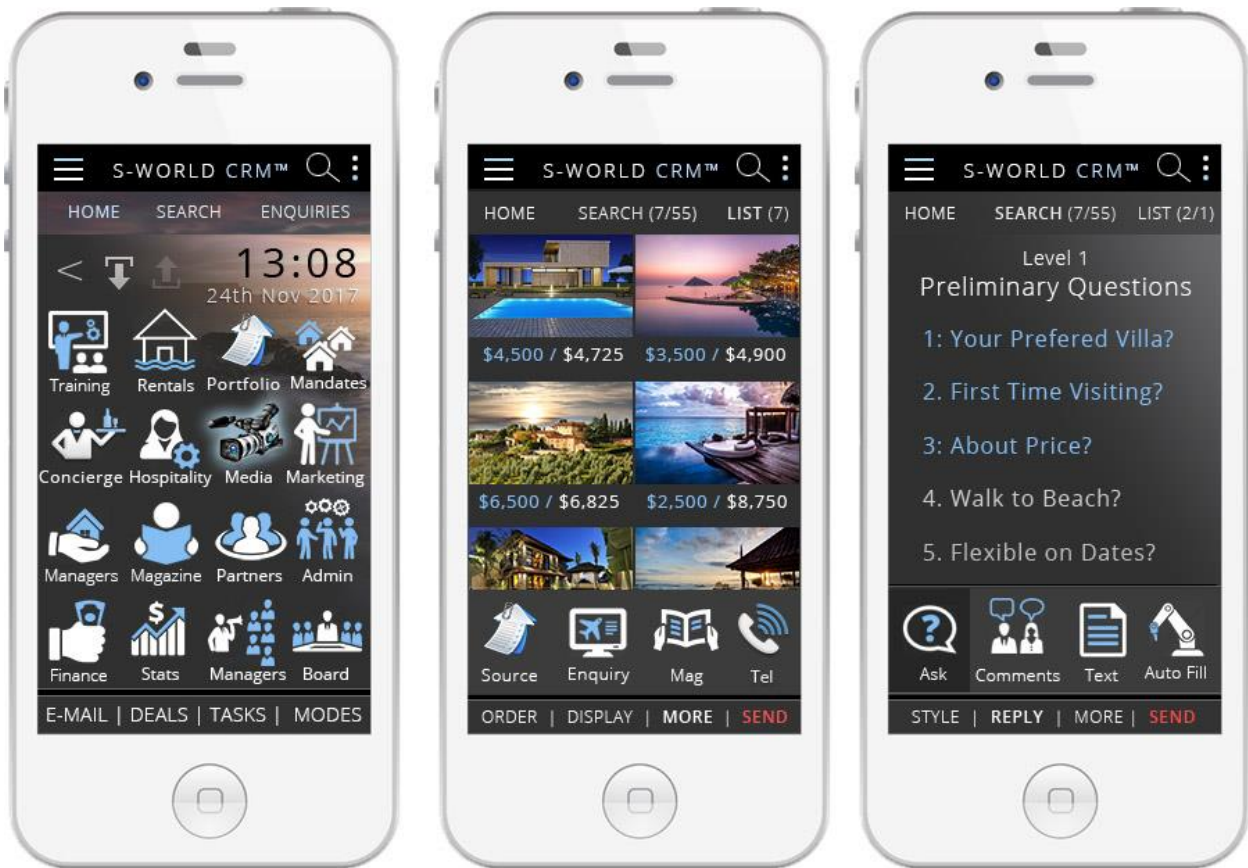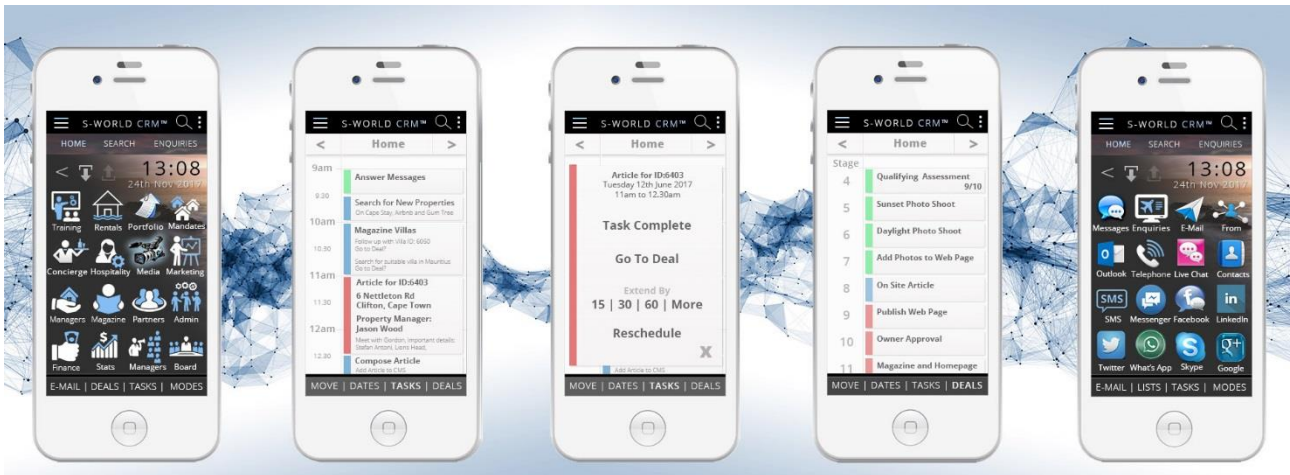
2012 Graphic

Should I move the future quotes and add them back to Man-Machine?
Yes, I think so, now is a good time to talk about Monopoly.

==3. But what makes the future distinctive and important isn't that it hasn't happened yet, but rather that it will be a time when the world looks different from today. In this sense, if nothing about our society changes for the next 100 years, then the future is over 100 years away. If things change radically in the next decade, then the future is nearly at hand. No one can predict the future exactly, but we know two things: it's going to be different, and it must be rooted in today's world.==

> *Answer*
>> a. In general, the S-World Network timeline is from now to 2080, but that's not to say it is not going to make much of a difference in the early decades. Within S-World UCS we create histories (scenarios between now and 2080). History 2 (see: www.angeltheory.org/video/25) and earlier versions were between now and the mid-century, and predict that Malawi can go from Zero two One percent of GDP by 2050.

Given the economic devastation, the coronavirus is causing, and given that it is expensive to start with a country without infrastructure such as Malawi, it's no longer out of the question that we could use Š-ŔÉŚ™ Financial Engineering in richer countries, and if this is so we will see a radical change from 2020 to 2030 and a paradigm shift between 2030 and 2040.

==4. Most answers to the contrarian question are different ways of seeing the present; good answers are as close as we can come to looking into the future."==

In Venture Deals, Jason Mendelson and Brad Feld stress the following:

"While you can create complex financial models that determine capital flows down to the penny, we know one thing with 100 percent certainty: these models will be wrong."

With this point agreed upon, the figure is still 24 trillion US dollars, for one Grand Śpin Network, but add that to another 50 or 100 Grand Śpin Networks in poor counties, and now what with the coronavirus and the economies of the world on a cliff edge – S-World can build the business structure for a COVID world. As a UK citizen, I feel obliged to consider the UK, but Italy and Spain have joined Greece on my Europe list. In fact, it may be a good idea to first

approach Italy, as they are upset with the EU, and a British/US lead initiative to save their economic asses would buy us support as we seek to terminate the antitrust laws in Europe and the US for S-World projects, because of S-World projects.

So really, we are talking about a paradigm shift in economics, stemming from digital monopoly software; the Supereconomics AI, also known as S-World Angelwing, previously known as M-Systems (in AngelTheory.org 2016 to 2019) and the PQS (Predictive Quantum Software) in AmericanButterfly.org 2012 to 2013).

let's have a quick listen to the combinatorial explosion concept. I first heard of this in 2018 from Nobel laureate Paul Romer from his 2018 Lecture in Economic Sciences. https://www.youtube.com/watch?v=vZmgZGIZtiM

> "But there's another concept that I need to flesh out about related to ideas, which is what computer scientists refer to as a **combinatorial explosion**. If you have a number of elements that you can combine; say you have 10 elements and combine them, we can calculate how many combinations can you make. If you have 20, we can calculate it again. Combinatorial explosion is a summary of the fact that the number of combinations explodes as you take more and more raw different elements that you can use to combine them."

Paul Romer

Growth Theory - Start-Up and Charter Cities

I came to admire and need Romer when I heard about his Charter City concept, from the book Poor Economics by Abhijit Banerjee and Esther Duflo. After reading, the following year, Paul Romer won the Nobel Prize in Economics and the year after Abhijit Banerjee and Esther Duflo win the Nobel Prize in economics, so a good source for some like-minded inspiration. The section on Romer Charter City concept follows;

Poor Economics

Esther Duflo & Abhijit Banerjee
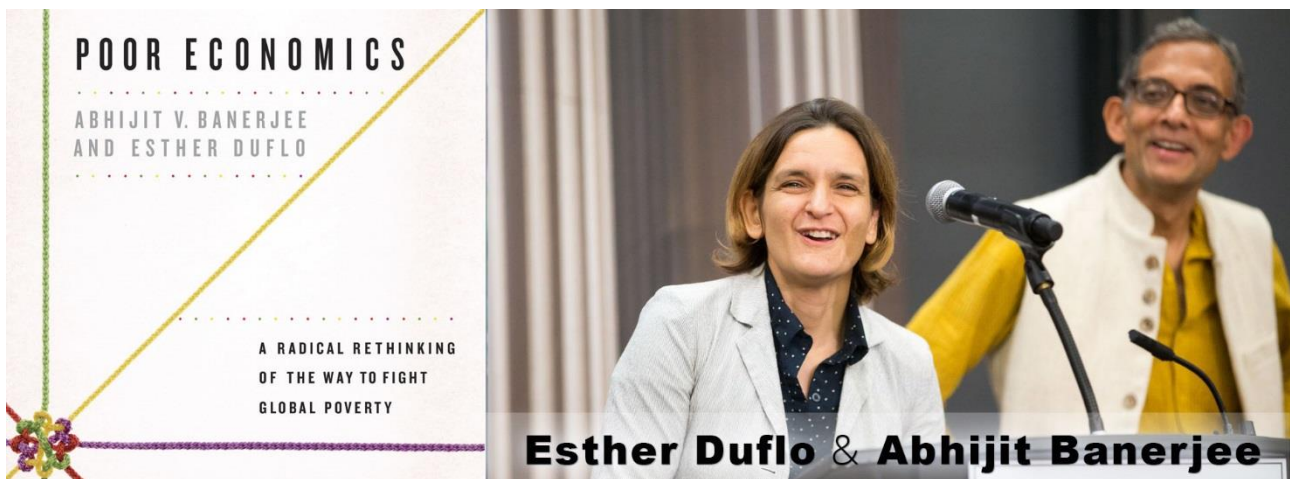
"One possible way to break the vicious cycle of bad institutions is to import change from the outside. Paul Romer, known for his pioneering work on economic growth a couple of decades ago, came up with what seems like a brilliant solution: If you cannot run your country, subcontract it to someone who can. Still, running an entire country may be difficult. So, he proposes starting with cities, small enough to be manageable but large enough to make a difference. Inspired by the example of Hong Kong, developed with great success by the British and then handed back to China, he developed the concept of "charter cities."

A Net-Zero Grand Śpin Network

Net-Zero DCA™ Software - **Dynamic** Comparative Advantage

Countries would hand over an empty strip of territory to a foreign power, who would then take the responsibility for developing a new city with good institutions. Starting from scratch, it is possible to establish a set of good ground rules (his examples range from traffic congestion charges to marginal cost pricing for electricity, and of course include legal protection of property rights). Because no one was forced to move there, and all new arrivals are voluntary—the strip was empty to start with—people would not have any reason to complain about the new rules.

One minor drawback with this scheme is that it is unclear that leaders in poorly run countries would willingly enter into an agreement of this sort. Moreover, even if they did, it is not clear they could find a buyer: Committing not to take over the strip of land once it is actually

successful would be quite difficult. So, some development experts go further. In his books; The Bottom Billion: Why the Poorest Countries Are Failing and What Can Be Done About It, and; Wars, Guns, and Votes: Democracy in Dangerous Places – Paul Collier, an Oxford University professor and former World Bank economist, argues that there are sixty "basket case" countries (think Chad, Congo, and so forth) in which about 1 billion people live. These countries are stuck in a vicious circle of bad economic and bad political institutions, and it is the duty of the Western world to get them out."

Poor Economics by Abhijit Banerjee and Esther Duflo

My first semi-serious attempt at a Charter City was 'New Sparta – City of Science' in 2011, the reason was to offer desired investors like Facebook, Microsoft Google and Virgin a hedge on the technology investment. They would invest in both the technology which we did not have a good prospectus for, and hedge it by building a City and each investor has their own Suburb. Given 'x' investment., the land value will rise to 'y'. The more PR worthy features the greater 'y' becomes. Here is the link but note this was back in 2011 and is just a bunch of ideas, not a plan.

www.s-world.biz/TST/saving_greece.htm
What made the difference between this plan and any other real estate plan was the POP System, also known as financial gravity.
www.s-world.biz/TST/EEE-14Billion_Years.htm

POP
A Good Model

Revenue Systems

MS 1 - The TBS™
MS 1 - S-Web™
MS 2 - Ripple Effects
MS 7 - S-World VSN™
MS 7 - S-World VBN™
MS 8 - S-World BES™
MS 16 - Angelverses

Virtual Companies

Villa Secrets
'Lx,' et al.

Logistics Systems

MS 1 - Sienna.Gov
MS 8 - S-World Film
MS 11 - QuESC
MS 12 - S-World UCS™
MS 13 - UCS Voyagers
MS 14 - Angel Cities
MS 14 - Angel City 5

POP
The Point of Profitability
MS 5
Financial Gravity

The POP Train
MS 5

The Green Symmetry
MS 9

Baby POP
MS 5

Super Coupling
MS 9

Angel POP
MS 15

MS 6
ŔÉŚ
The Law of Conservation of Ŕevenue
The Sienna Equilibrium

MS 10
The Theory of Every Business
Grand Networks Charter Cities
S-World Angelwing™ Economic Software Framework

MS 0 - The GGW String
MS 3 - The Susskind Boost
MS 4 - The Peet Tent

Special Projects 1 to 16 - Philanthropy, Ecology & Space

1. Experience Africa
2. The Ecological Economy
3. Advancing Human Potential
3b. Internet & Education
3c. Electricity
4. Cities of Science
4b. Infrastructure
4c. Network Cities
5. Equality & The Poverty Gap

6. Sienna's Forests
7. Global Cooling
8. Universal Knowledge
9. Spartan Contracts – Jobs, Jobs, Jobs
9b. Five-Star Social Housing
9c. The A&B String 2018 (Welfare)
10. Global Healthcare
10b. Limiting Antibiotics
11. African Rain

12. Their Oceans
13. Middle Earth
14. The Population Point
14b. Angel City 5
15. The Spartan Theory
15b. The Fort Malawi Garrison
15c. S-World Film
16. Universal Colonization

POP - Financial Gravity

POP is seen on the S-World AngelWing design – as M-Systems 5 POP, 9 Super Coupling and M-System 15 Angel POP

POP is most recently detailed in Supereconomics Book 3. 64 Reasons Why 1.0 for Kate Raworth, and from this link, one of my favourite pages; www.angeltheory.org/book/2-2/the-flap-of-a-butterflys-wings
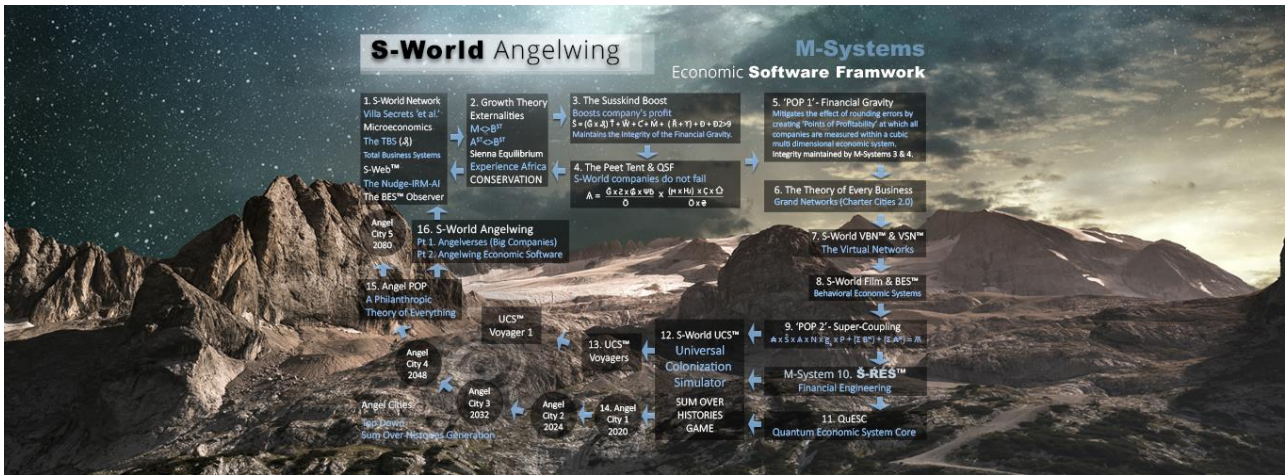
"**What would you** DO IF CAPITAL WERE FREE?"

The Hard Thing About Hard Things by Ben Horowitz

In creating New Sparta – City of Science I worked under the idea that I would get more capital than I needed, so essentially the thought experiment was as-if capital were free.

One of the first ideas was to make it Net-Zero, a full 8 years before the world started to care about such things. In particular, we wanted electric cars, and a mass planting of trees to make the developments more than Net-Zero in Carbon. In this idea, the trees required water, and so we looked at the price of desalinization and added this to the core design. The main problem with desalinization was the energy required, but if capital were free we could just build a load of solar to power it.

The following year; 2012 the New Sparta model was remade in Orlando Florida, this time on a real 9 square mile plot of land for sale for a hundred million US dollars; see American Butterfly book 1: The Theory of Every Business. http://americanbutterfly.org/pt1/the-theory-of-every-business/index. However looking back the development was not the star of the show, it took up the first six of eight chapters, but it was Chapter 7 on the S-World Virtual Social Network and chapter 8 on S-World UCS – Universal Colonization Simulator (Tutorial and game) that really shone out. This game or the plan for it was the beginning of the É recycle-Éfficiency in the Š-ŔÉŚ equation. http://americanbutterfly.org/pt1/the-theory-of-every-business/ch8-s-world-universal-colonization-simulator

This was all created in the first 9 months of 2012 until in the middle of the last chapter I came across quantum mechanics care of Garret Lisi and his theory of everything. Thinking upon and expanding upon his ideas led to book 2. Which had a few working titles; quantum economics was one, Superstring Economics was another, but as the chapters biggest contribution was the PQS software (Predictive Quantum Software) I named it Spiritually Inspired Software http://americanbutterfly.org/pt2/spiritually-inspired-software/index-

spiritually-inspired-software which really was my trying to get to grips with the basics of quantum and string theory, as I believed that if string theory was so economical, I wanted that type of economics in S-World. The result we see below, which was the pre-runner to the current M-Systems design.
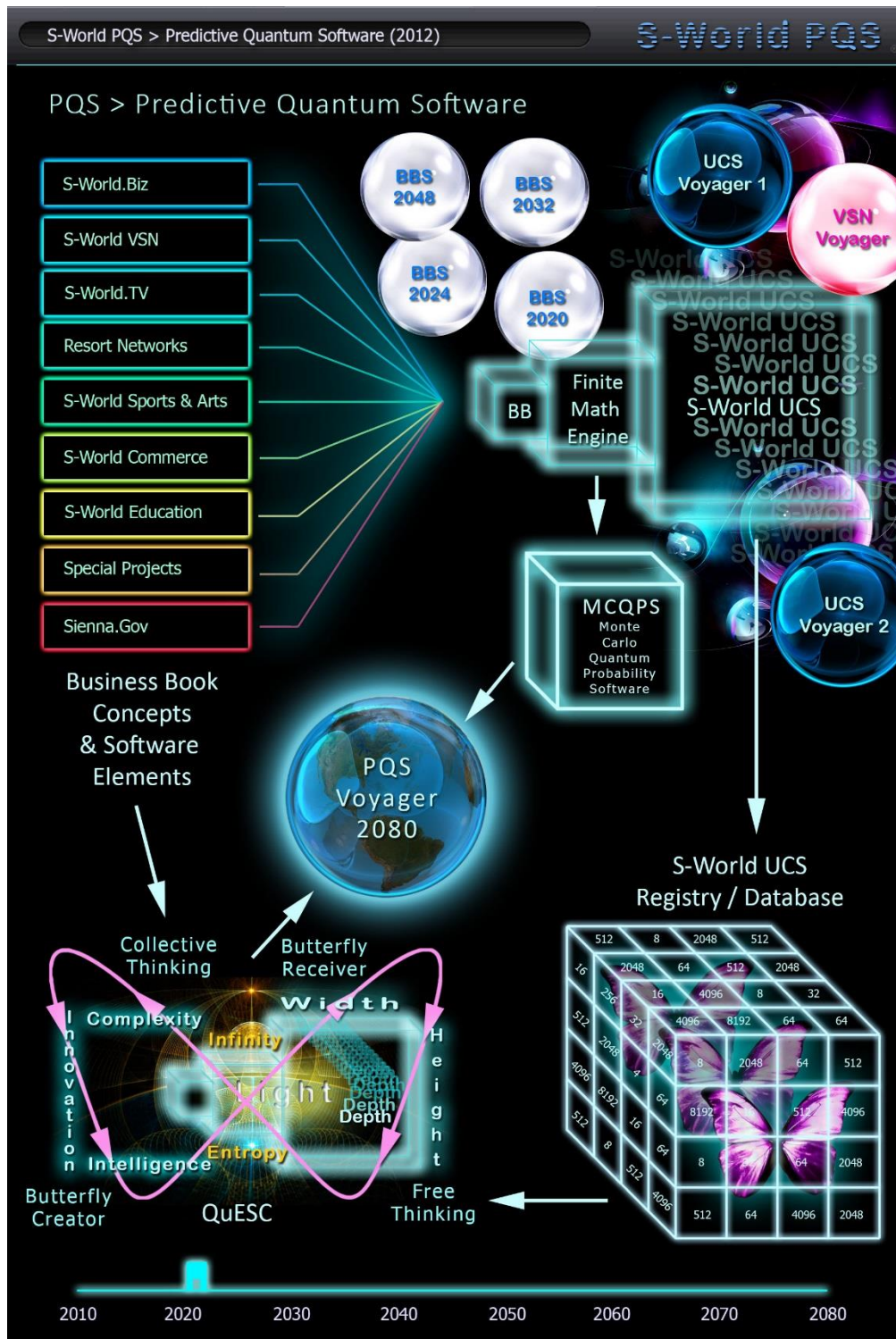
The third book in American Butterfly was fondly titled 'The Network on A String' http://americanbutterfly.org/pt3/the-network-on-a-string/index-the-network-on-a-string which assisted in starting the development journey which would take four years and end up

with the M-Systems design, as seen below.
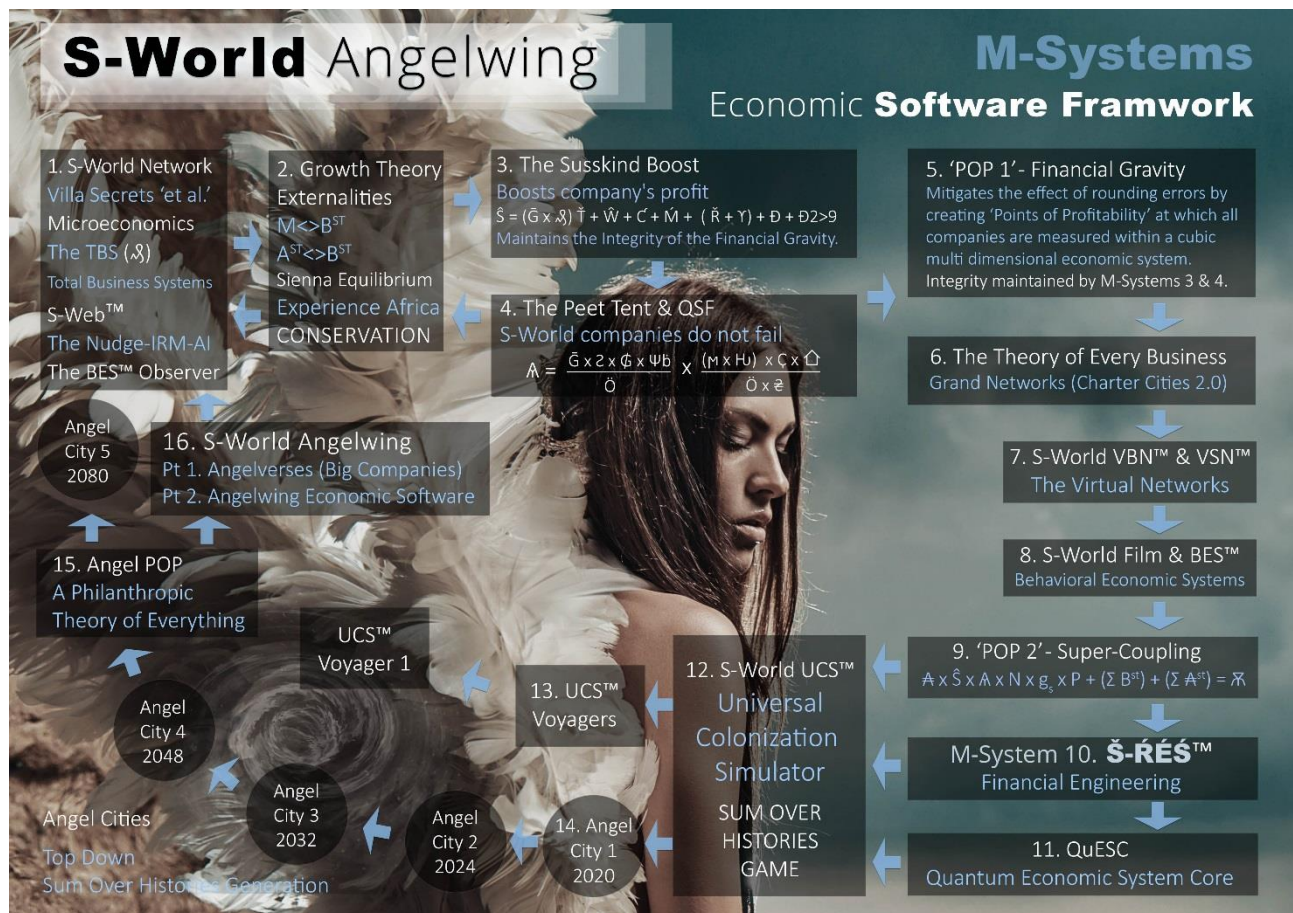
And the year after I created this system, now in 2017, I had another development idea, this time on MARS as Elon Mush and SpaceX outlined their MARS timetable, I thought if they are going to provide the transport, S-World will champion the property development, in part as a good end to the UCS MMO game design, but also because it was fun to do. However, the Game became very real when I realised that without a formal government we could tax based on output created, and use the RES equation, which had been ruled out in 2012 because of tax. So I did the math and wow, this was a good idea, and so I considered if we are going to do this on earth we need to pick a country with very low GDP, and as Malawi was already on the table and it has the lowest per Capita GDP in the world it was chosen and 2018, and 2019 were spent working on that theory whilst continuing to develop the S-Web product, and just starting to realize the TBS development was turning into an AI, and for the first time understanding what an AI is. It is whatever can help a human, be that an S-World Villa Secrets agent or my mom doing whatever needs to be done. It is not complicated code, per se, it is a clever way, AI is the combination of man and machine, the AI in S-World stems from M-System 11. QuESC.

S-World Angelwing

M-Systems
Economic **Software Framwork**

The S-World UCS™
M-Systems

1. S-World Network
Villa Secrets 'et al.'
Microeconomics
The TBS (♂)
Total Business Systems
S-Web™
The Nudge-IRM-AI
The BES™ Observer

Angel City 5 2080

16. S-World Angelwing
Pt 1. Angelverses (Big Companies)
Pt 2. Angelwing Economic Software

15. Angel POP
A Philanthropic
Theory of Everything

UCS™
Voyager 1

Angel City 4 2048

13. UCS™
Voyagers

12. S-World UCS™
Universal
Colonization
Simulator

SUM OVER
HISTORIES
GAME

M-System 10. **Š-RÉŚ™**
Financial Engineering

Angel Cities

Top Down
Sum Over Histories Generation

Angel City 3 2032

Angel City 2 2024

14. Angel City 1 2020

11. QuESC
Quantum Economic System Core

New Sparta – Net-Zero – City of Science (2011)

PQS > New Sparta > City of Science (Created in 2011)　　　S-World PQS

7. Agriculture
Free Fruit & Vegetables
Chaos Theory
Control The Weather

6 Transport
Mass Transit
Electric Cars
Particle Physics
Magnetic Propulsion

8 Manufacturing
Space Station &
Satellite Design
Quantum
Mechanics

16 Computers
Computer Science
ST - SIS - TOE

15 Pharmaceuticals
Free Drugs
The Happy Worker
Psychiatry/Chemistry

5. Finance
World Bank
Economics
Mathematics

1. Real Estate & Development Construction
GBPI
Economics
GHPI
Ecology

14. Mining, Metals Precious Stones
Quantum Mechanics
Robotic Mining

9. Flight
Space Flight
Particle Physics

13 Travel
Environment
Chaos Theory
Physics/Ecology

2 Oil & Gas Energy
Hydro
Solar
Wind
AlternativeEnergy
Chaos Theory

4 Film & Media
Entertainment
Biology
ST - TOE

10 Electrical
Physics
Robotics

11 S-World Internet & Social Networking
Virtual Technology
ST - TOE

3 Music
String Theory
Theory of Everything

12 Software
Computer Science
Mathematics
SIS - TOE

American Butterfly (2012)

MARS Resort 1 (2017)

Malawi Grand Śpin Network (2018)

Goes Here?

Part 10
Start-Ups and Distribution

Startups and Distribution

Answers to **Key Points** *from Zero to One by Peter Thiel with Blake Masters*

Chapters
6. YOU ARE NOT A LOTTERY TICKET
9. FOUNDATIONS
10 THE MECHANICS OF MAFIA
11 IF YOU BUILD IT, WILL THEY COME?
14. THE FOUNDER'S PARADOX

From Chapter 6 You are not a Lottery Ticket

1. From the 17th century through the 1950s and '60s, definite optimists led the Western world. Scientists, engineers, doctors, and businessmen made the world richer, healthier, and more long-lived than previously imaginable. As Karl Marx and Friedrich Engels saw clearly, the 19th-century business class created more massive and more colossal productive forces than all preceding generations together.

   While a definitely optimistic future would need engineers to design underwater cities and settlements in space, an indefinitely optimistic future calls for more bankers and lawyers. Only in a definite future is money a means to an end, not the end itself. We are more fascinated today by statistical predictions of what the country will be thinking in a few weeks' time than by **visionary predictions of what the country will look like 10 or 20 years from now**. Definite optimism works when you build the future you envision. Definite pessimism works by building what can be copied without expecting anything new.

   A startup is the largest endeavor over which you can have definite mastery and a company is the strangest place of all for an indefinite optimist: why should you expect your own business to succeed without a plan to make it happen? Darwinism may be a fine theory in other contexts, but in startups, intelligent design works best. We have to find our way back to a definite future, and **the Western world needs nothing short of a cultural revolution to do it.**

   Reply

   ### Can S-World inspire a cultural revolution, that shapes the future?

   By making games, virtual worlds, movies and implementing the 64 special projects I do hope so.
   S-World UCS 87 quintillion Histories created as a game for all to play will help change this mindset

Chapter 9. FOUNDATIONS

2. **I stress this so often that friends have teasingly nicknamed it "Thiel's law": a startup messed up at its foundation cannot be fixed.**
   Companies are like countries in this way. Bad decisions made early on—if you choose the wrong partners or hire the wrong people, for example—are very hard to correct after they are made.

   It may take a crisis on the order of bankruptcy before anybody will even try to correct

them. As a founder, your first job is to get the first things right, because you cannot build a great company on a flawed foundation.

Beginnings are special. They are qualitatively different from all that comes afterward. This was true 13.8 billion years ago, at the founding of our cosmos: in the earliest microseconds of its existence, the universe expanded by a factor of 10^{30}—a million trillion trillion. As cosmogonic epochs came and went in those first few moments, the very laws of physics were different from those we know today.

Answer

Right now, my team is at zero but can reach one by hiring my long-standing software engineer Vineeth. After this, however, I have no team. Worse I have no team, and 8 products all as important as each other.

However, I do have equity in an interesting startup and my list of people I wish to work with, whose companies are essential to avoid patent problems. I will refer to them as first-phase-desired-co-founders;

The 5 desired Technical and or business Co-Founders are

a. **Sir Richard and Holly Branson**
   S-Web, S-World Film, The TBS™, VSN™, UCS™, Š-ŔÉŚ™ and Net-Zero DCA™ Soft.

b. **Mark Zuckerberg**
   UCS™, S-Web, VSN, Š-ŔÉŚ™, Angelwing and the Supereconomics AI

c. **Elon Musk**
   UCS™, Supereconomics AI, Net-Zero DCA™ Soft, Š-ŔÉŚ™, VSN, TBS™, and S-World Film

d. Google (**Eric Schmidt**, Larry Page, Sergey Brin, Jonathan Rosenberg, Sundar Pichai)
   S-World VSN, S-Web, the TBS™, UCS™, Š-ŔÉŚ™ and Net-Zero DCA™ Soft.

e. **Bill Melinda and Phoebe Adele Gates**
   TBS™, Net-Zero DCA™, Soft. UCS™, VSN™, Š-ŔÉŚ™ and S-World Film

   Note that originally Paul G Allen and Stephen Hawking were on my first list.

   Also under consideration

f. Show Bizz
   Madonna, Leonardo De Caprio, Angelina Jolie and Bono

g. Political:
   Barack, Michelle, Malia Ann, and Sasha Obama, Chelsea Clinton, Arnold Schwarzenegger.

h. VCs:

Peter Thiel, Ben Horowitz, Michael Burry

i. Economists

Richard Thaler, Paul Romer, Joseph Stiglitz, Kate Raworth

j. M-Theory (Pure Math and Theoretical Physics)

Edward Witten, Leonard Susskind, James Gates, A.W. Peet, Michael Green, Brian Greene, Garrett Lisi and Michio Kaku

k. High-End Real Estate

Warren Buffet's Berkshire Hathaway, Dan Conn or other from Christie's International Real Estate, Philip A. White, Jr. or A. Bradley Nelson from Sotheby's International Realty.

3. **Executives who manage companies and directors who govern them have separate roles to play; + A board of three is ideal**

Equity is a powerful tool. Anyone who prefers owning a part of your company to being paid in cash reveals a preference for the long term and a commitment to increasing your company's value in the future. Equity can't create perfect incentives, but it's the best way for a founder to keep everyone in the company broadly aligned.

Answer

We need 8 boards, and once the music stops I can only be on some, I see my time spent on writing the books in better detail, in a team environment, and working with the development teams making sure that that the projects are all aligned

Chapter 10. The Mechanics of Mafia

4. **Why would someone join your company as its 20th engineer when she could go work at Google for more money and more prestige?**

Here are some bad answers: "Your stock options will be worth more here than elsewhere." "You'll get to work with the smartest people in the world." "You can help solve the world's most challenging problems." What's wrong with valuable stock, smart people, or pressing problems? Nothing—but every company makes these same claims, so they won't help you stand out. General and undifferentiated pitches don't say anything about why a recruit should join your company instead of many others. The only good answers are specific to your company, so you won't find them in this book.

But there are two general kinds of good answers: answers about your mission and answers about your team.

You'll attract the employees you need if you can explain why your mission is compelling: not why it's important in general, but why you're doing something important that no one else is going to get done.

That's the only thing that can make its importance unique. At PayPal, if you were excited by the idea of creating a new digital currency to replace the U.S. dollar, we wanted to talk to you; if not, you weren't the right fit.

However, even a great mission is not enough. The kind of recruit who would be most engaged as an employee will also wonder: "Are these the kind of people I want to work with?" You should be able to explain why your company is a unique match for him personally. And if you can't do that, he's probably not the right match.

Above all, don't fight the perk war. Anybody who would be more powerfully swayed by free laundry pickup or pet day care would be a bad addition to your team. Just cover the basics like health insurance and then promise what no others can:

The opportunity to do irreplaceable work on a unique problem alongside great people.

Answer

Well, this is a good answer, work on this project is irrepealable for the billions of people who will benefit, particularly the poor, but equally the rich who benefit from the stable world that is created. Working on a unique problem is also correct, whereas many are working on this or that unique problem, the problem of equality and dignity from the poorest Malawian to the middle classes in the west is a problem that is discussed in almost every book one will find on economics. And as for the great people, well I have my list of desired co-founders, and I hope they and advisors can assist the great people requirement. In this regard 'great people' in non-co-founder positions is my greatest weakness. The teams will need to be chosen from scratch, but I hope Peter Thiel and the likes of Ben Horowitz can assist with the early stages of this task when we are seeing to create the prototype for UCS and other systems. It's a shame Bill Campbell is no longer around to assist.

With this said, once UCS ™ is created, (UCS ™ is the next book I'm working on) it becomes the training and recruiting tool, assisted by the TBS and other systems.

5. The best thing I did as a manager at PayPal was to make every person in the company responsible for doing just one thing.
*[Nick Ray Ball - How about ~~assigning~~ asking each new team member to pick a special project, that is there one thing, and they should fight for it because they chose it*

The 80-20 rule may apply, 20% of the Special Projects get 80% of the funding, so there's a lot to fight for in the early days]

People at a successful startup are fanatically right about something those outside it have missed.

Chapter 11.
IF YOU BUILD IT, WILL THEY COME?
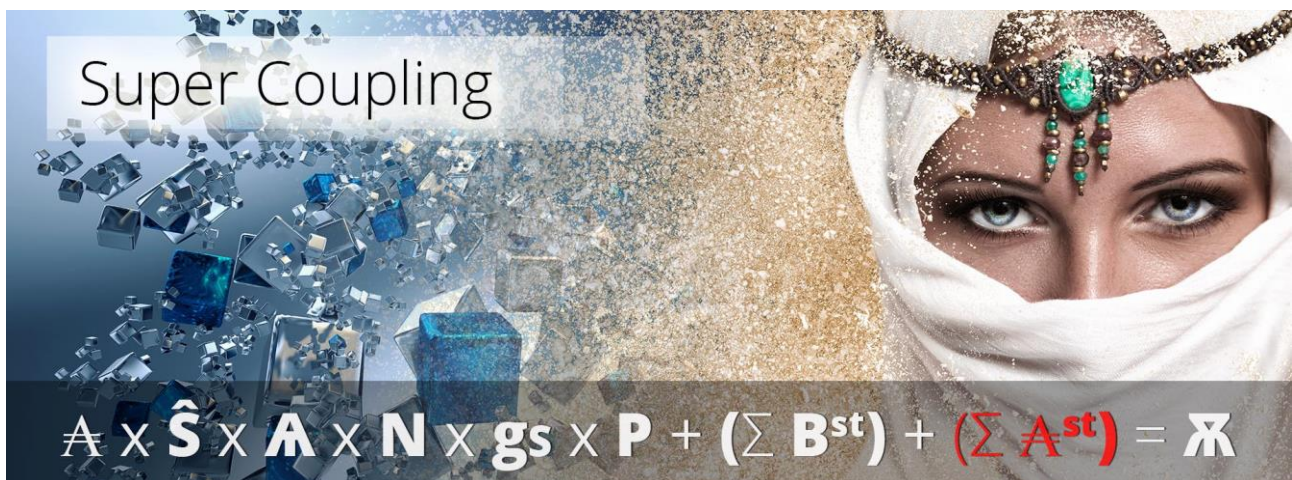
Even though sales is everywhere, most people underrate its importance. Silicon Valley underrates it more than most. The geek classic The Hitchhiker's Guide to the Galaxy even explains the founding of our planet as a reaction against salesmen. When an imminent catastrophe requires the evacuation of humanity's original home, the population escapes on three giant ships. The thinkers, leaders, and achievers take the A Ship; the salespeople and consultants get the B Ship; and the workers and artisans take the C Ship. The B Ship leaves first, and all its passengers rejoice vainly. But the salespeople don't realize they are caught in a ruse: the A Ship and C Ship people had always thought that the B Ship people were useless, so they conspired to get rid of them. And it was the B Ship that landed on Earth.

Distribution may not matter in fictional worlds, but it matters in ours. We underestimate the importance of distribution—**a catchall term for everything it takes to sell a product**—because we share the same bias the A Ship and C Ship people had: salespeople and other "middlemen" supposedly get in the way, and distribution should flow magically from the creation of a good product. The Field of Dreams conceit is especially popular in Silicon Valley, where engineers are biased toward building cool stuff rather than selling it. But;

Customers will not come just because you build it. You have to make that

happen, and it's harder than it looks.

NERDS VS. SALESMEN

What nerds miss is that **it takes hard work to make sales look easy**.

SALES IS HIDDEN

All salesmen are actors: their priority is persuasion, not sincerity.

That's why the word "salesman" can be a slur and the used car dealer is our archetype of shadiness. But we only react negatively to awkward, obvious salesmen—that is, the bad ones. There's a wide range of sales ability: there are many gradations between novices, experts, and masters. **There are even sales grandmasters.**

If you don't know any grandmasters, it's not because you haven't encountered them, but rather because their art is hidden in plain sight.
The most fundamental reason that even businesspeople underestimate the importance of sales is the systematic effort to hide it at every level of every field **in a world secretly driven by it.**

The engineer's grail is a product great enough that "it sells itself." But anyone who would actually say this about a real product must be lying: either he's delusional (lying to himself) or he's selling something (and thereby contradicting himself). The polar opposite business cliché warns that "the best product doesn't always win." Economists attribute this to "path dependence": specific historical circumstances independent of objective quality can determine which products enjoy widespread adoption. That's true, but it doesn't mean the operating systems we use today and the keyboard layouts on which we type were imposed by mere chance.

It's better to think of distribution as something essential to the design of your product.

The Challenger Sale & the Super Coupling Equation

6. In general, the higher the price of your product, the more you have to spend to make a sale—**and the more it makes sense to spend it.**
   [Nick Ray Ball]

   ## S-Web Products; About $50,000 each or for free?]

   One of the biggest dilemmas I have is the pricing of a standard S-Web villa Secrets company, such as www.CapeLuxuryVillas.com, I very nearly sold a white label version for $28,000, and would have if I had not been obsessed with Š-ŔÉŚ™ at the time.

   The cost of making one more website is almost nothing, and as for servicing the product, the 2.5% of turnover fee, is more than enough to cover all ongoing expenses.

   However, I have for now decided that I am not interested in servicing individual deals, instead I am targeting Pam Golding and Sotheby's Realty South Africa, Lew Geffen and Andrew Golding. In the case of Pam Golding, they have more than a few hundred agents across Africa, half of whom would benefit from their own S-Web products such as www.VillasinCampsBay.com

   Returning to Zero to One:

   At Palantir, the data analytics company I co-founded with my law school classmate Alex Karp, doesn't employ anyone separately tasked with selling its product. Instead, Alex, who is Palantir's CEO, spends 25 days a month on the road, meeting with clients and potential clients. **Our deal sizes range from $1 million to $100 million. At that price point, buyers want to talk to the CEO, not the VP of Sales.**

   The challenge here isn't about how to make any particular sale, but how to establish a process by which a sales team of modest size can move the product to a wide audience.

   This is why so many small and medium-sized businesses don't use tools that bigger firms take for granted. It's not that small business proprietors are unusually backwards or that good tools don't exist: **distribution is the hidden bottleneck.**

   If every new user leads to more than one additional user, you can achieve a chain reaction of exponential growth.

   One method is likely to be far more powerful than every other for any given business:

   If you can get just one distribution channel to work, you have a great business. If you try for several but don't nail one, you're finished.
   You should never assume that people will admire your company without a public relations strategy.

Everybody has a product to sell—no matter whether you're an employee, a founder, or an investor. It's true even if your company consists of just you and your computer.

Look around. If you don't see any salespeople, you're the salesperson.

Chapter 14. THE FOUNDER'S PARADOX

7. Almost all successful entrepreneurs are simultaneously insiders and outsiders. They may oscillate between sullen jerkiness and appealing charisma.

   As an example, take Sir Richard Branson, the billionaire founder of the Virgin Group. He could be described as **a natural entrepreneur: Branson started his first business at age 16, and at just 22 he founded Virgin Records.** But other aspects of his renown—the trademark lion's mane hairstyle, for example—are less natural: one suspects he wasn't born with that exact look. As Branson has cultivated his other extreme traits (Is kiteboarding with naked supermodels a PR stunt? Just a guy having fun? Both?), the media has eagerly enthroned him: Branson is "The Virgin King," **"The Undisputed King of PR," "The King of Branding,"** and "The King of the Desert and Space." When Virgin Atlantic Airways began serving passengers drinks with ice cubes shaped like Branson's face, he became "The Ice King."

   Is Branson just a normal businessman who happens to be lionized by the media with the help of a good PR team? Or is he himself a born branding genius rightly singled out by the journalists he is so good at manipulating? It's hard to tell— maybe he's both.

   ~~The most famous people in the world are founders, too: instead of a company, every celebrity founds and cultivates a personal brand~~

8. THE RETURN OF THE KING

   Just as the legal attack on Microsoft was ending Bill Gates's dominance, **Steve Jobs's return to Apple demonstrated the irreplaceable value of a company's founder.** In some ways, Steve Jobs and Bill Gates were opposites. Jobs was an artist, preferred closed systems, and spent his time thinking about great products above all else; Gates was a businessman, kept his products open, and wanted to run the world. But both were insider/outsiders, and both pushed the companies they started to achievements that nobody else would have been able to match.

   A college dropout who walked around barefoot and refused to shower, **Jobs** was also the insider of his own personality cult. **He could act charismatic or crazy, perhaps according to his mood or perhaps according to his calculations;** it's hard to believe that such weird practices as apple-only diets weren't part of a larger strategy. But all this eccentricity backfired on him in 1985: Apple's board effectively kicked Jobs out of his own company when he clashed with the professional CEO brought in to provide adult supervision

   Jobs's return to Apple 12 years later shows how the most important task in business—the creation of new value—cannot be reduced to a formula and applied by professionals. When he was hired as interim CEO of Apple in 1997, the

impeccably credentialed executives who preceded him had steered the company nearly to bankruptcy. That year Michael Dell famously said of Apple, "What would I do? I'd shut it down and give the money back to the shareholders." **Instead Jobs introduced the iPod (2001), the iPhone (2007), and the iPad (2010) before he had to resign in 2011 because of poor health**. **By the following year Apple was the single most valuable company in the world.** Apple's value crucially depended on the singular vision of a particular person. This hints at the strange way in which the companies that create new technology often resemble feudal monarchies rather than organizations that are supposedly more "modern." A unique founder can make authoritative decisions, inspire strong personal loyalty, and plan ahead for decades. Paradoxically, impersonal bureaucracies staffed by trained professionals can last longer than any lifetime, but they usually act with short time horizons.

The lesson for business is that we need founders. If anything, we should be more tolerant of founders who seem strange or extreme; we need unusual individuals to lead companies beyond mere incrementalism.

The lesson for founders is that individual prominence and adulation can never be enjoyed except on the condition that it may be exchanged for individual notoriety and demonization at any moment— **so be careful.**

Above all, don't overestimate your own power as an individual. Founders are important not because they are the only ones whose work has value, but rather because a great founder can bring out the best work from everybody at his company. That we need individual founders in all their peculiarity does not mean that we are called to worship Ayn Randian "prime movers" who claim to be independent of everybody around them. In this respect Rand was a merely half-great writer: her villains were real, but her heroes were fake. There is no Galt's Gulch. There is no secession from society. To believe yourself invested with divine self-sufficiency is not the mark of a strong individual, but of a person who has mistaken the crowd's worship—or jeering—for the truth. The single greatest danger for a founder is to become so certain of his own myth that he loses his mind. **But an equally insidious danger for every business is to lose all sense of myth and mistake disenchantment for wisdom.**

M-Systems

From M-Theory to M-Systems

Paradigm Shift

Angel Theory Volume 1

CHAPTER 11
QuESC

MAN, AND MACHINE

As mature industries stagnate, information technology has advanced so rapidly that it has now become synonymous with "technology" itself. Today, more than 1.5 billion people enjoy instant access to the world's knowledge using pocket-sized devices. **Every one of today's smartphones has thousands of times more processing power than the computers that guided astronauts to the moon. And if Moore's law continues apace, tomorrow's computers will be even more powerful.**

Computers already have enough power to outperform people in activities we used to think of as distinctively human. In 1997, IBM's Deep Blue defeated world chess champion Garry Kasparov. Jeopardy's best-ever contestant, Ken Jennings, succumbed to IBM's Watson in 2011. And Google's self-driving cars are already on California roads today. Dale Earnhardt Jr. needn't feel threatened by them, but the Guardian worries (on behalf of the millions of chauffeurs and cabbies in the world) that self-driving cars "could drive the next wave of unemployment."

Everyone expects computers to do more in the future—so much more that some wonder: 30 years from now, will there be anything left for people to do? "Software is eating the world," venture capitalist Marc Andreessen has announced with a tone of inevitability. VC Andy Kessler sounds almost gleeful when he explains that the best way to create productivity is "to get rid of people." Forbes captured a more anxious attitude when it asked readers: Will a machine replace you?

Futurists can seem like they hope the answer is yes. Luddites are so worried about being replaced that they would rather we stop building new technology altogether. Neither side questions the premise that better computers will necessarily replace human workers. But that premise is wrong**: computers are complements for humans, not substitutes. The most valuable businesses of coming decades will be built by entrepreneurs who seek to empower people rather than try to make them obsolete.**

SUBSTITUTION VS. COMPLEMENTARITY

Fifteen years ago, American workers were worried about competition from cheaper Mexican substitutes. And that made sense, because humans really can substitute for each other. Today people think they can hear Ross Perot's "giant sucking sound" once more, but they trace it back to server farms somewhere in Texas instead of cut-rate factories in Tijuana. **Americans fear technology in the near future because they see it as a replay of the globalization of the near past. But the situations are very different: people compete for jobs and for resources; computers compete for neither.**

Globalization Means Substitution

When Perot warned about foreign competition, both George H. W. Bush and Bill Clinton preached the gospel of free trade: since every person has a relative strength at some particular job, **in theory the economy maximizes wealth when people specialize according to their advantages and then trade with each other.** In practice, it's not unambiguously clear how well free trade has worked, for many workers at least. **Gains from trade are greatest when there's a big discrepancy in comparative advantage**, but the global supply of workers willing to do repetitive tasks for an extremely small wage is extremely large.

People don't just compete to supply labour; they also demand the same resources. While American consumers have benefited from access to cheap toys and textiles from China, they've had to pay higher prices for the gasoline newly desired by millions of Chinese motorists. Whether people eat shark fins in Shanghai or fish tacos in San Diego, they all need food and they all need shelter. And desire doesn't stop at subsistence—people will demand ever more as globalization continues. Now that millions of Chinese

peasants can finally enjoy a secure supply of basic calories, they want more of them to come from pork instead of just grain. **The convergence of desire is even more obvious at the top: all oligarchs have the same taste in Cristal, from Petersburg to Pyongyang.**

Technology Means Complementarity

Now think about the prospect of competition from computers instead of competition from human workers. On the supply side, computers are far more different from people than any two people are different from each other: men and machines are good at fundamentally different things. People have intentionality—we form plans and make decisions in complicated situations. We're less good at making sense of enormous amounts of data. Computers are exactly the opposite: they excel at efficient data processing, but they struggle to make basic judgments that would be simple for any human.

To understand the scale of this variance, consider another of Google's computer-for-human substitution projects. In 2012, one of their supercomputers made headlines when, after scanning 10 million thumbnails of YouTube videos, it learned to **identify a cat with 75% accuracy**. That seems impressive—until you remember that an average four-year-old can do it flawlessly. When a cheap laptop beats the smartest mathematicians at some tasks but even a supercomputer with 16,000 CPUs can't beat a child at others, you can tell that humans and computers are not just more or less powerful than each other—they're categorically different.

	SUPPLY (of labor)	DEMAND (for resources)
GLOBALIZATION (other humans)	Substitution: "The world is flat."	Mimetic consumer competition
TECHNOLOGY (better computers)	Mostly complementary	Machines don't demand: all value goes to people

The stark differences between man and machine mean that gains from working with computers are much higher than gains from trade with other people. We don't trade with computers any more than we trade with livestock or lamps. And that's the point: computers are tools, not rivals.

The differences are even deeper on the demand side. Unlike people in industrializing countries, computers don't yearn for more luxurious foods or beachfront villas in Cap Ferrat; all they require is a nominal amount of electricity, which they're not even smart enough to want. When we design new computer technology to help solve problems, we get all the efficiency gains of a hyperspecialized trading partner without having to compete with it for resources. Properly understood, technology is the one way for us to escape competition in a globalizing world. As

computers become more and more powerful, they won't be substitutes for humans: they'll be complements.

COMPLEMENTARY BUSINESSES

Complementarity between computers and humans isn't just a macro-scale fact. It's also the path to building a great business. I came to understand this from my experience at PayPal. In mid-2000, we had survived the dot-com crash and we were growing fast, but we faced one huge problem: we were losing upwards of $10 million to credit card fraud every month. Since we were processing hundreds or even thousands of transactions per minute, we couldn't possibly review each one—no human quality control team could work that fast.

So, we did what any group of engineers would do: we tried to automate a solution. First, Max Levchin assembled an elite team of mathematicians to study the fraudulent transfers in detail. Then we took what we learned and wrote software to automatically identify and cancel bogus transactions in real time. But it quickly became clear that this approach wouldn't work either: after an hour or two, the thieves would catch on and change their tactics. **We were dealing with an adaptive enemy, and our software couldn't adapt in response.**

The fraudsters' adaptive evasions fooled our automatic detection algorithms, but we found that they didn't fool our human analysts as easily. So, Max and his engineers rewrote the software to take a hybrid approach: the computer would flag the most suspicious transactions on a well-designed user interface, and human operators would make the final judgment as to their legitimacy. Thanks to this hybrid system—we named it "Igor," after the Russian fraudster who bragged that we'd never be able to stop him—we turned our first quarterly profit in the first quarter of 2002 (as opposed to a quarterly loss of $29.3 million one year before). **The FBI asked us if we'd let them use Igor to help detect financial crime. And Max was able to boast, grandiosely but truthfully, that he was "the Sherlock Holmes of the Internet Underground."**

This kind of man-machine symbiosis enabled PayPal to stay in business, which in turn enabled hundreds of thousands of small businesses to accept the payments they needed to thrive on the internet. None of it would have been possible without the man-machine solution—even though most people would never see it or even hear about it.

I continued to think about this after we sold PayPal in 2002: if humans and computers together could achieve dramatically better results than either could attain alone, what other valuable businesses could be built on this core principle? The next year, I pitched Alex Karp, an old Stanford classmate, and Stephen Cohen, a software engineer, on a new startup idea: we would use the humancomputer hybrid approach from PayPal's security system to identify terrorist networks and financial fraud. We already knew the FBI was interested, and **in 2004 we founded Palantir**, a software company that helps people extract insight from divergent sources of information. **The company is on track to book sales of $1 billion in 2014, and Forbes has called Palantir's software the "killer app" for its rumored role in helping the government locate Osama bin Laden.**

We have no details to share from that operation, but we can say that neither human intelligence by itself nor computers alone will be able to make us safe. America's two biggest spy agencies take opposite approaches: The Central Intelligence Agency is run by spies who

privilege humans. The National Security Agency is run by generals who prioritize computers. CIA analysts have to wade through so much noise that it's very difficult to identify the most serious threats. NSA computers can process huge quantities of data, but machines alone cannot authoritatively determine whether someone is plotting a terrorist act. Palantir aims to transcend these opposing biases: its software analyzes the data the government feeds it— phone records of radical clerics in Yemen or bank accounts linked to terror cell activity, for instance—and flags suspicious activities for a trained analyst to review.

Use Palantir for the 87 Quintillion Histories?

 In addition to helping find terrorists, analysts using Palantir's software have been able to predict where insurgents plant IEDs in Afghanistan; prosecute high-profile insider trading cases; take down the largest child pornography ring in the world; support the Centers for Disease Control and Prevention in fighting foodborne disease outbreaks; and **save both commercial banks and the government hundreds of millions of dollars annually through advanced fraud detection.**

Advanced software made this possible, but even more important were the human analysts, prosecutors, scientists, and financial professionals without whose active engagement the software would have been useless.

Think of what professionals do in their jobs today. Lawyers must be able to articulate solutions to thorny problems in several different ways—the pitch changes depending on whether you're talking to a client, opposing counsel, or a judge. Doctors need to marry clinical understanding with an ability to communicate it to non-expert patients. And good teachers aren't just experts in their disciplines: they must also understand how to tailor their instruction to different individuals' interests and learning styles. Computers might be able to do some of these tasks, but they can't combine them effectively. **Better technology in law, medicine, and education won't replace professionals; it will allow them to do even more.**

LinkedIn has done exactly this for recruiters. When LinkedIn was founded in 2003, they didn't poll recruiters to find discrete pain points in need of relief. And they didn't try to write software that would replace recruiters outright. Recruiting is part detective work and part sales: you have to scrutinize applicants' history, assess their motives and compatibility, and persuade the most promising ones to join you. Effectively replacing all those functions with a computer would be impossible. Instead, LinkedIn set out to transform how recruiters did their jobs. **Today, more than 97% of recruiters use LinkedIn and its powerful search and filtering functionality to source job candidates,** and the network also creates value for the hundreds of millions of professionals who use it to manage their personal brands. If LinkedIn had tried to simply replace recruiters with technology, they wouldn't have a business today.

The Ideology of Computer Science

Why do so many people miss the power of complementarity? It starts in school. Software engineers tend to work on projects that replace human efforts because that's what they're trained to do. Academics make their reputations through specialized research; their primary goal is to

publish papers, and publication means respecting the limits of a particular discipline. For computer scientists, that means reducing human capabilities into specialized tasks that computers can be trained to conquer one by one.

Just look at the trendiest fields in computer science today. **The very term "machine learning" evokes imagery of replacement**, and its boosters seem to believe that computers can be taught to perform almost any task, so long as we feed them enough training data. **Any user of Netflix or Amazon has experienced the results of machine learning firsthand: both companies use algorithms to recommend products based on your viewing and purchase history.** Feed them more data and the recommendations get ever better. Google Translate works the same way, providing rough but serviceable translations into any of the 80 languages it supports—not because the software understands human language, but because it has extracted patterns through statistical analysis of a huge corpus of text.

The other buzzword that epitomizes a bias toward substitution is "big data." Today's companies have an insatiable appetite for data, mistakenly believing that more data always creates more value. But big data is usually dumb data. **Computers can find patterns that elude humans, but they don't know how to compare patterns from different sources or how to interpret complex behaviors. Actionable insights can only come from a human analyst (or the kind of generalized artificial intelligence that exists only in science fiction).**

We have let ourselves become enchanted by big data only because we exoticize technology. We're impressed with small feats accomplished by computers alone, but we ignore big achievements from complementarity because the human contribution makes them less uncanny. **Watson, Deep Blue, and ever-better machine learning algorithms are cool. But the most valuable companies in the future won't ask what problems can be solved with computers alone. Instead, they'll ask: how can computers help humans solve hard problems?**

EVER-SMARTER COMPUTERS: FRIEND OR FOE?

The future of computing is necessarily full of unknowns. It's become conventional to see ever-smarter anthropomorphized robot intelligences like Siri and Watson as harbingers of things to come; **once computers can answer all our questions, perhaps they'll ask why they should remain subservient to us at all.**

The logical endpoint to this substitutionist thinking is called "strong AI": computers that eclipse humans on every important dimension. Of course, the Luddites are terrified by the possibility. It even makes the futurists a little uneasy; **it's not clear whether strong AI would save humanity or doom it.** Technology is supposed to increase our mastery over nature and reduce the role of chance in our lives; building smarter-than-human computers could actually bring chance back with a vengeance. Strong AI is like a cosmic lottery ticket: if we win, we get utopia; if we lose, Skynet substitutes us out of existence.

But even if strong AI is a real possibility rather than an imponderable mystery, it won't happen anytime soon: **replacement by computers is a worry for the 22nd century**. Indefinite fears about the far future shouldn't stop us from making definite plans today. Luddites claim that we shouldn't build the computers that might replace people someday; crazed futurists argue that we should. These two positions are mutually exclusive, but they

are not exhaustive: there is room in between for sane people to **build a vastly better world in the decades ahead. As we find new ways to use computers, they won't just get better at the kinds of things people already do; they'll help us to do what was previously unimaginable.**

THE FUTURE OF STRONG AI?
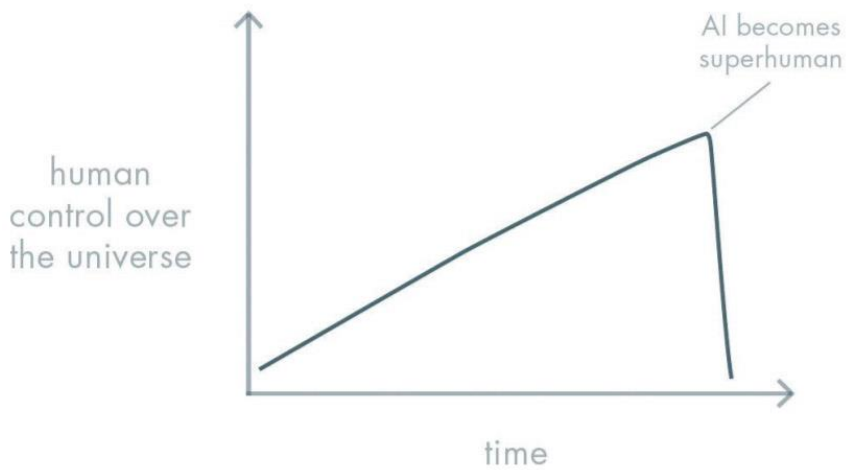
13. Minus 9.00

"Each one of us has to start out with developing his or her own definition of success.

And when we have these specific expectations of ourselves, we're more likely to live up to them.

Ultimately, it's not what we get or even what you give, it's what you become."

Mary Gates

Addendum 1

My Chaos Theory Joke – Mid 2011

What if God were bored?

Energy, the universe, and what most refer to as God are all intertwined in my mind. It does, however, help in telling stories to simplify "Energy, the Universe, & God" to simply "God," so I will.

When I think of God, I imagine a large entity made of many parts.

What if God's greatest creation was called "The Chaotic Earth Game." Here, the parts of God could travel and experience a lifetime, either because they were bored or to better aid their development. The catch, of course, was that as soon as the particles of God were born, they had no idea they were playing the game.

One could choose your own time and try life as a caveman, a 21st-century human, a dinosaur; or just take a vacation as a cat or plant, if say the chemical make-up of a plant or cat made them permanently happy (just something I've been pondering).

At the end of the journey, one could assess, there may even be a score. If one did well, applause from the rest of God. If one did badly, no one notices; it is, after all, just a game.

I wonder what my God's reaction would be to my discovering S-World and my desire to create a fairer world.

If implemented, would I have a huge score and be applauded? As I had done something significant in the universe, had I even added to God's plan?

Or...

Would every part of God just look at me with disappointment and say,

"You idiot, you broke the game!"

THE END

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Zero to One – Part 1

The Challenge of the Future (Reasons 2 to 10) – Page 9

Reasons 2 to 10.

Chapter 1. The Challenge of the Future

24. What important truth do very few people agree with you on?"
   Answer
   a. **Most people think that philanthropy, charity and aid are best for the poorest global citizens, but the truth is; monopoly is better.**

   To be specific, the S-World monopoly system is better for the poorest global citizens

   This leads us to a second important truth, which is that **most experts in monopoly do their best to hide, and invent stories of competition, whereas the S-World monopoly, can hide in plain sight, and boast about its monopoly rents because they fund the 64 Reasons Why.** (from book 1)

   Powered by the network monopoly rents created by the Š-ŔÉŚ™ equation, the S-World monopoly can deliver a 33x future for everyone, and in particular the poor, and because of this quality, this monopoly will not have to hide, it's a digital monopoly and it's the best future we can possibly hope to dream of. And those that oppose monopoly must back down, and if that means rewriting economics, then so be it.

   Let us call it Supereconomics, in part in reference to how string theory and supersymmetry helped forge the original RES equation in 2012 in my American Butterfly Trilogy; (book 3, chapter 4) Quantum Force Theory, Spin & the RES ⇔ Equation

   The important Supereconomics truth is that the monopoly equation Š-ŔÉŚ™, and the Net-Zero DCA (Dynamic Comparative Advantage) Software, **can 33x our future, for our children and our children's children,** constructing the future of the third world, and then remaking the first world in beautiful Net-Zero

~~See Video 34 E) Š ŔÉŚ™ Supereconomics & The Special Project Allocations~~
~~www.angeltheory.org/video/34e~~ ~~(35 minutes) (8th March 2020).~~

25. What makes the future distinctive and important isn't that it hasn't happened yet, but rather that it will be a time when the world looks different from today. In this sense, if nothing about our society changes for the next 100 years, then the future is over 100 years away. If things change radically in the next decade, then the future is nearly at hand. No one can predict the future exactly, but we know two things: it's going to be different, and it must be rooted in today's world.

Reply

a. In general, the S-World Network timeline is from now to 2080, but that's not to say it is not going to make much of a difference in the early decades. Within S-World UCS™ we create histories (scenarios between now and 2080). History 2 (see: www.angeltheory.org/video/25) and earlier versions were between now and the mid-century, and predict that Malawi can go from Zero two One percent of GDP by 2050.

b. Given the economic devastation, the coronavirus is causing, and given that it is expensive to start with a country without infrastructure such as Malawi, it's no longer out of the question that we could use Š-ŔÉŚ™ Financial Engineering in richer countries, and if this is so we will see a radical change from 2020 to 2030 and a paradigm shift between 2030 and 2040.

CAN YOU CONTROL YOUR FUTURE?

26. You can expect the future to take a definite form or you can treat it as hazily uncertain.

If you treat the future as something definite, it makes sense to understand it in advance and to work to shape it.

Answer

In 2011, during a conversation about predicting the future, a wise man introduced me to the following philosophical quote by Isaac Asimov.

Isaac Asimov:

"You may not predict what an individual may do, but you can put in motion things that will move the masses in a direction that is desired,

thus shaping if not predicting the future."

This philosophy became the S-World Network Mantra and is still at the heart of the system, and once we get past the indifference in the words, it makes a lot of sense. Consider the S-World Network and its component S-World UCS™ **as-if** they were a time machine, created to change the future, between now and 2080, pit stopping in 2024, 2032 and 2048 along the way.

The mechanics are complex but can be simplified down to eight ideas/technologies that I collectively call S-World Angelwing.