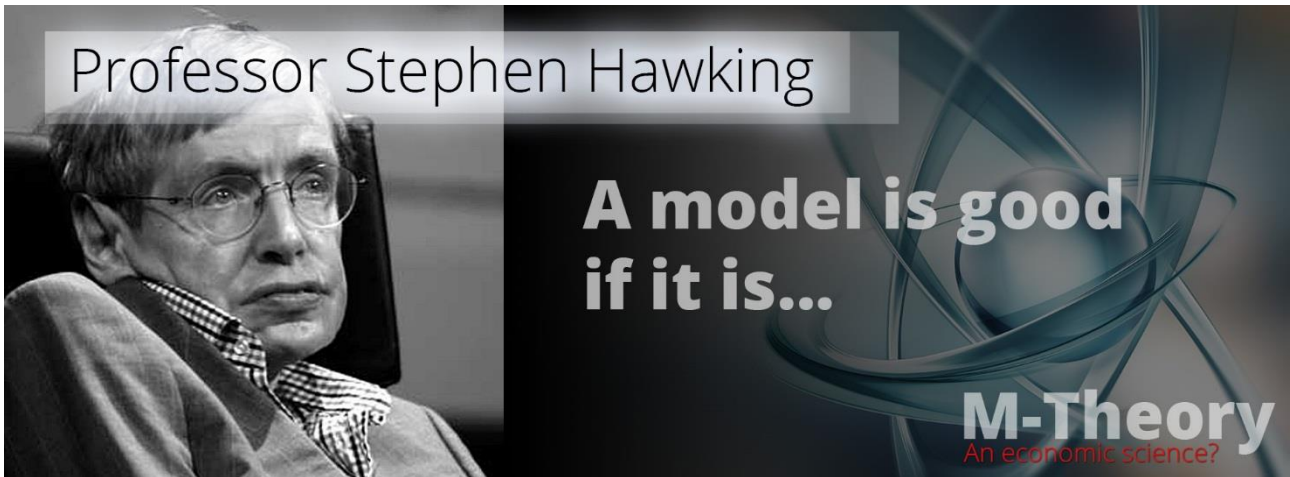


March 2015 to 6th June 2021

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**

! Important, the following was added on 6th June 2021

THE GRAND DESIGN

Chapter 3 What is Reality?

(Edited by Nick Ray Ball)

I Jump a few paragraphs in and after adding relevant copy.

A different kind of alternative reality occurs in the science fiction film *The Matrix*, in which the human race is unknowingly living in a simulated virtual reality created by intelligent computers to keep them pacified and content while the computers suck their bioelectrical energy (whatever that is). Maybe this is not so far-fetched, because many people prefer to spend their time in the simulated reality of websites such as *Second Life*. **How do we know we are not just characters in a computer-generated soap opera?** If we lived in a synthetic imaginary world, events would not necessarily have any logic or consistency or obey any laws. The aliens in control might find it more interesting or amusing to see our reactions, for example, if the full moon split in half, or everyone in the world on a diet developed an uncontrollable craving for banana cream pie. But if the aliens did enforce consistent laws, there is no way we could tell there was another reality behind the simulated one. It would be easy to call the world the aliens live in the “real” one and the synthetic world a “false” one. But if—like us—the beings in the simulated world could not gaze into their universe from the outside, there would be no reason for them to doubt their own pictures of reality. **This is a modern version of the idea that we are all figments of someone else’s dream.** These examples bring us to a conclusion that will be important in this book:

There is no picture- or theory-independent concept of reality. Instead we will adopt a view that we will call **model-dependent realism**: the idea that a physical theory or world picture is a model (generally of a mathematical nature) and a set of rules that connect the elements of the model to observations. This provides a framework with which to interpret modern science.

Philosophers from Plato onward have argued over the years about the nature of reality. Classical science is based on the belief that there exists a real external world whose properties are definite and independent of the observer who perceives them. According to classical science, certain objects exist and have physical properties, such as speed and mass, that have well-defined values. In this view our theories are attempts to describe those

objects and their properties, and our measurements and perceptions correspond to them. Both observer and observed are parts of a world that has an objective existence, and any distinction between them has no meaningful significance. In other words, if you see a herd of zebras fighting for a spot in the parking garage, it is because there really is a herd of zebras fighting for a spot in the parking garage. All other observers who look will measure the same properties, and the herd will have those properties whether anyone observes them or not. In philosophy that belief is called realism.

Though realism may be a tempting viewpoint, as we'll see later, what we know about modern physics makes it a difficult one to defend. **For example, according to the principles of quantum physics, which is an accurate description of nature, a particle has neither a definite position nor a definite velocity unless and until those quantities are measured by an observer.** It is therefore not correct to say that a measurement gives a certain result because the quantity being measured had that value at the time of the measurement. **In fact, in some cases, individual objects don't even have an independent existence but rather exist only as part of an ensemble of many. And if a theory called the holographic principle proves correct, we and our four-dimensional world may be shadows on the boundary of a larger, five-dimensional space-time.**

~

According to model-dependent realism, it is pointless to ask whether a model is real, only whether it agrees with observation. If there are two models that both agree with observation, like the goldfish's picture and ours, then one cannot say that one is more real than another. One can use whichever model is more convenient in the situation under consideration.

For example, if one were inside the bowl, the goldfish's picture would be useful, but for those outside, it would be very awkward to describe events from a distant galaxy in the frame of a bowl on earth, especially because the bowl would be moving as the earth orbits the sun and spins on its axis

We make models in science, but we also make them in everyday life. Model-dependent realism applies not only to scientific models but also to the conscious and subconscious mental models we all create in order to interpret and understand the everyday world. There is no way to remove the

observer—us—from our perception of the world, which is created through our sensory processing and through the way we think and reason. Our perception—and hence the observations upon which our theories are based—is not direct, but rather is shaped by a kind of lens, the interpretive structure of our human brains.

Model-dependent realism corresponds to the way we perceive objects. In vision, one's brain receives a series of signals down the optic nerve. Those signals do not constitute the sort of image you would accept on your television. There is a blind spot where the optic nerve attaches to the retina, and the only part of your field of vision with good resolution is a narrow area of about 1 degree of visual angle around the retina's center, an area the width of your thumb when held at arm's length. And so the raw data sent to the brain are like a badly pixilated picture with a hole in it. Fortunately, the human brain processes that data, combining the input from both eyes, filling in gaps on the assumption that the visual properties of neighboring locations are similar and interpolating. Moreover, it reads a two-dimensional array of data from the retina and creates from it the impression of three-dimensional space. **The brain, in other words, builds a mental picture or model.**

Model-dependent realism can provide a framework to discuss questions such as: If the world was created a finite time ago, what happened before that?

Some people support a model in which time goes back even further than the big bang. It is not yet clear whether a model in which time continued back beyond the big bang would be better at explaining present observations because it seems the laws of the evolution of the universe may break down at the big bang. If they do, it would make no sense to create a model that encompasses time before the big bang, because what existed then would have no observable consequences for the present, and so we might as well stick with the idea that the big bang was the creation of the world.

“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.”

For example, Aristotle’s theory that the world was made of four elements, earth, air, fire, and water, and that objects acted to fulfill their purpose was elegant and didn’t contain adjustable elements. But in many cases it didn’t make definite predictions, and when it did, the predictions weren’t always in agreement with observation. One of these predictions was that heavier objects should fall faster because their purpose is to fall. Nobody seemed to have thought that it was important to test this until Galileo. There is a story that he tested it by dropping weights from the Leaning Tower of Pisa. This is probably apocryphal, but we do know he rolled different weights down an inclined plane and observed that they all gathered speed at the same rate, contrary to Aristotle’s prediction.

The above criteria are obviously subjective. Elegance, for example, is not something easily measured, but it is highly prized among scientists because laws of nature are meant to economically compress a number of particular cases into one simple formula.

Nick Ray Ball:

The paragraph above, was the Holy Grail for me, in terms of encouragement. “Economically Compress,” bought me at least a years work to find out more, and I added the idea that we have had 3.77 billion years of natural finetuning to make what we see and enjoy today, and that by following nature, per quantum mechanics, then as if by magic, everything will fit together in the end.

(I must try to find the proper quote for this.)

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. Ptolemy added epicycles to the circular orbits of the heavenly bodies in order that his model might accurately describe their motion. The model could have been made more accurate by adding epicycles to the epicycles, or even epicycles to those. Though added complexity could make the model more accurate, scientists view a model that is contorted to match a specific set of observations as unsatisfying, more of a catalog of data than a theory likely to embody any useful principle.

We’ll see in Chapter 5 that many people view the “standard model,” which describes the interactions of the elementary particles of nature, as inelegant. That model is far more successful than Ptolemy’s epicycles. It predicted the existence of several new particles before they were observed, and described the outcome of numerous experiments over several decades to great precision. But it contains dozens of adjustable parameters whose values must be fixed to match observations, rather than being determined by the theory itself.

As for the fourth point, scientists are always impressed when new and stunning predictions prove correct. On the other hand, when a model is found lacking, a common reaction is to say the

experiment was wrong. If that doesn't prove to be the case, people still often don't abandon the model but instead attempt to save it through modifications. Although physicists are indeed tenacious in their attempts to rescue theories they admire, the tendency to modify a theory fades to the degree that the alterations become artificial or cumbersome, and therefore "inelegant."

If the modifications needed to accommodate new observations become too baroque, it signals the need for a new model. One example of an old model that gave way under the weight of new observations was the idea of a static universe. In the 1920s, most physicists believed that the universe was static, or unchanging in size. Then, in 1929, Edwin Hubble published his observations showing that the universe is expanding. But Hubble did not directly observe the universe expanding. He observed the light emitted by galaxies. That light carries a characteristic signature, or spectrum, based on each galaxy's composition, which changes by a known amount if the galaxy is moving relative to us. Therefore, by analyzing the spectra of distant galaxies, Hubble was able to determine their velocities. He had expected to find as many galaxies moving away from us as moving toward us.

Instead he found that nearly all galaxies were moving away from us, and the farther away they were, the faster they were moving. Hubble concluded that the universe is expanding, but others, trying to hold on to the earlier model, attempted to explain his observations within the context of the static universe. For example, Caltech physicist Fritz Zwicky suggested that for some yet unknown reason light might slowly lose energy as it travels great distances. This decrease in energy would correspond to a change in the light's spectrum, which Zwicky suggested could mimic Hubble's observations. For decades after Hubble, many scientists continued to hold on to the steady-state theory. But the most natural model was Hubble's, that of an expanding universe, and it has come to be the accepted one.

In our quest to find the laws that govern the universe we have formulated a number of theories or models, such as the four-element theory, the Ptolemaic model, the phlogiston theory, the big bang theory, and so on. With each theory or model, our concepts of reality and of the fundamental constituents of the universe have changed. For example, consider the theory of light. Newton thought that light was made up of little particles or corpuscles. This would explain why light travels in straight lines, and Newton also used it to explain why light is bent or refracted when it passes from one medium to another, such as from air to glass or air to water.

The corpuscle theory could not, however, be used to explain a phenomenon that Newton himself observed, which is known as Newton's rings. Place a lens on a flat reflecting plate and illuminate it with light of a single color, such as a sodium light. Looking down from above, one will see a series of light and

dark rings centered on where the lens touches the surface. This would be difficult to explain with the particle theory of light, but it can be accounted for in the wave theory.

According to the wave theory of light, the light and dark rings are caused by a phenomenon called interference. A wave, such as a water wave, consists of a series of crests and troughs. When waves collide, if those crests and troughs happen to correspond, they reinforce each other, yielding a larger wave. That is called constructive interference. In that case the waves are said to be “in phase.” At the other extreme, when the waves meet, the crests of one wave might coincide with the troughs of the other. In that case the waves cancel each other and are said to be “out of phase.” That situation is called destructive interference.

In Newton’s rings the bright rings are located at distances from the center where the separation between the lens and the reflecting plate is such that the wave reflected from the lens differs from the wave reflected from the plate by an integral (1, 2, 3,...) number of wavelengths, creating constructive interference. (A wavelength is the distance between one crest or trough of a wave and the next.) The dark rings, on the other hand, are located at distances from the center where the separation between the two reflected waves is a half-integral ($\frac{1}{2}$, $1\frac{1}{2}$, $2\frac{1}{2}$,...) number of wavelengths, causing destructive interference—the wave reflected from the lens cancels the wave reflected from the plate.

In the nineteenth century, this was taken as confirming the wave theory of light and showing that the particle theory was wrong. However, early in the twentieth century Einstein showed that the photoelectric effect (now used in television and digital cameras) could be explained by a particle or quantum of light striking an atom and knocking out an electron. Thus light behaves as both particle and wave.

The concept of waves probably entered human thought because people watched the ocean, or a puddle after a pebble fell into it. In fact, if you have ever dropped two pebbles into a puddle, you have probably seen interference at work, as in the picture above. Other liquids were observed to behave in a similar fashion, except perhaps wine if you’ve had too much. The idea of particles was familiar from rocks, pebbles, and sand. But this wave/particle duality—the idea that an object could be described as either a particle or a wave—is as foreign to everyday experience as is the idea that you can drink a chunk of sandstone.

Dualities like this—situations in which two very different theories accurately describe the same phenomenon—are consistent with model-dependent realism. Each theory can describe and explain certain properties, and neither theory can be said to be better or more real than the other. Regarding the

laws that govern the universe, what we can say is this: There seems to be no single mathematical model or theory that can describe every aspect of the universe. Instead, as mentioned in the opening chapter, there seems to be the network of theories called M-theory. Each theory in the M-theory network is good at describing phenomena within a certain range. Wherever their ranges overlap, the various theories in the network agree, so they can all be said to be parts of the same theory. But no single theory within the network can describe every aspect of the universe— all the forces of nature, the particles that feel those forces, and the framework of space and time in which it all plays out. Though this situation does not fulfill the traditional physicists' dream of a single unified theory, it is acceptable within the framework of model-dependent realism.

We will discuss duality and M-theory further in Chapter 5, but before that we turn to a fundamental principle upon which our modern view of nature is based: quantum theory, and in particular, the approach to quantum theory called alternative histories. In that view, the universe does not have just a single existence or history, but rather every possible version of the universe exists simultaneously in what is called a quantum superposition. That may sound as outrageous as the theory in which the table disappears whenever we leave the room, but in this case the theory has passed every experimental test to which it has ever been subjected.

! Important, the following page was retrospectively added on 6th June 2021. This was a page from another essay, but is relevant to the phrase; *"Elegance for example..."* Which is a quote from the Grand Design chapter 3, which I need for www.S-World.org June Home Page.

Nick Ray Ball:

"It sounds far-fetched, however In my opinion it's perfectly feasible, by mimicking the laws of nature, as are described by M Theory, the business model becomes elegant. On Elegant Models Professor Steven Hawking Says:

"Elegance for example is not something easily measured, but it is highly-priced among scientists because laws of nature are meant to economically compress a number of particular cases into one simple formula."

And so with an economically compressed business model, using principles from String Theory (one of) the world's most economic sets of mathematics, influenced and made safe by quantum mechanics powered by The Butterfly Effect and Financial Gravity one can see why such a model would be superior to our existing economics.

As S-World develops and grows it becomes an in-progress experiment in experimental and theoretic physics as a foundation for an improved economic and business model.

And as it succeeds the work is worthy of a Nobel prize, not in physics, but for applications from physics applied in economics."

Original Text Worth reading;

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 $A < > B^{st}$, 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 Beyond 87 Quintillion Histories.**

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

Currently, we are only using POP, RÉŚ, 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, RÉŚ, 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-ŘÉS™ holds).

3. Agrees with and explains all existing observations

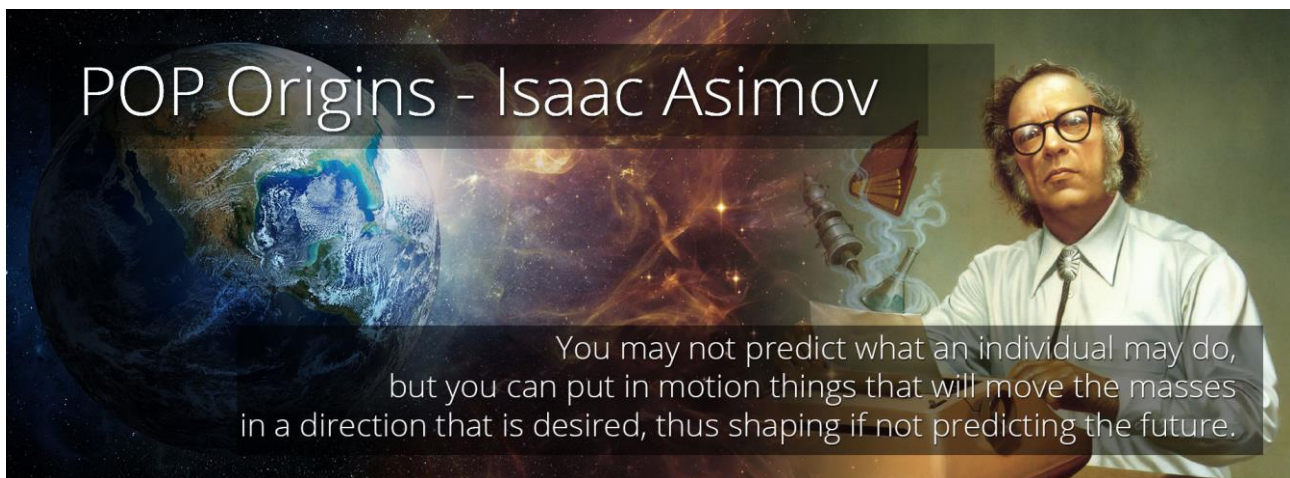
When it comes to the differences in opinion on what is the correct economic theory, there are many. The (As-If) M-theory design of S-World Angelwing allows for a map of many economic theories, some agreeing, some not, and then it throws them forwards and back from 2024 to 2080 about 87 quintillion times. 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 now to 2080) that will shine a light on the future and help us fulfil Asimov's quest.



“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

CHAPTER 7

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 THE WHAT, THE HOW and THE WHY are all built upon RES in 2019: Š-RÉS™ 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)

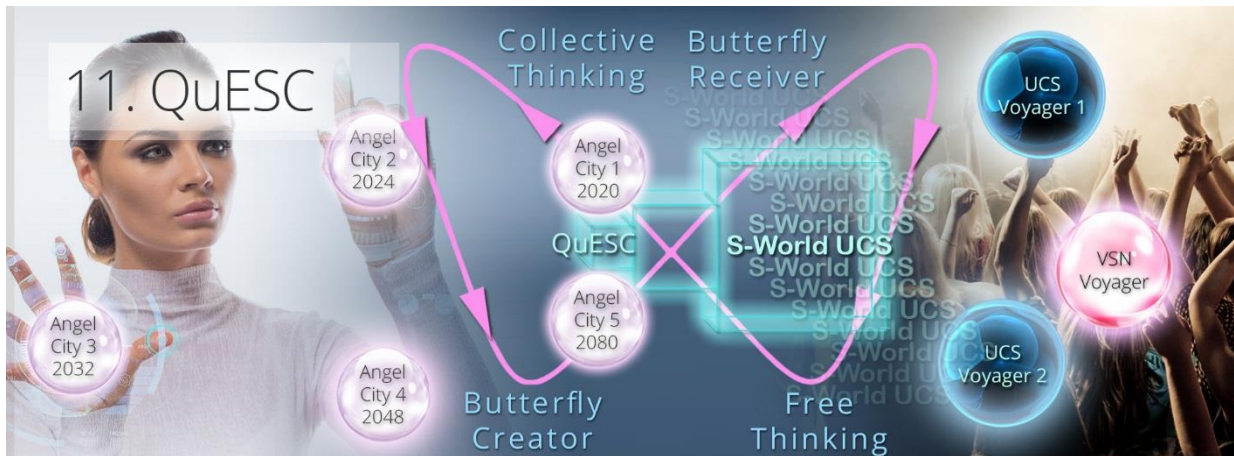
Later, we will talk about S-World UCS™ MARS Resort 1. Fact or fiction remains to be seen, but on Mars, we can implement the RES Equation with a 100% Efficiency, which is to say every cent spent is accounted for; where after we cut tax and spin, creating a supercharged economy unimaginable on earth. We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

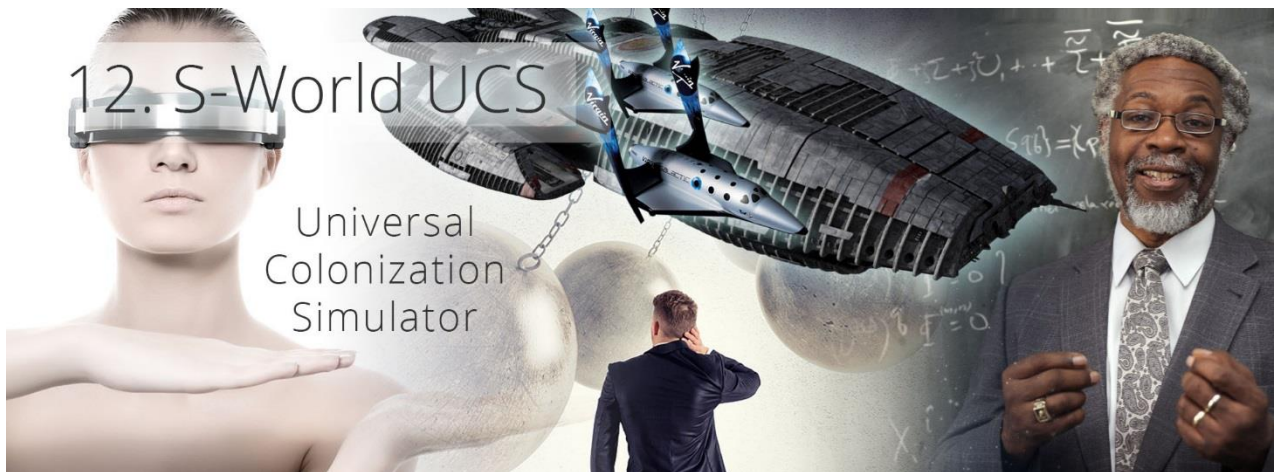
Originally imagined in 2003 as 'Villa Mogul,' the idea to create a management simulation game like Railway Tycoon. The 'hook' is that the game was based on a real business. By September 2012, it had developed into American Butterfly – The Theory of Every Business – Chapter 8: [S-World UCS - Universal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



M-SYSTEM 12B

S-World UCS™ MMO (2012 to 2017)

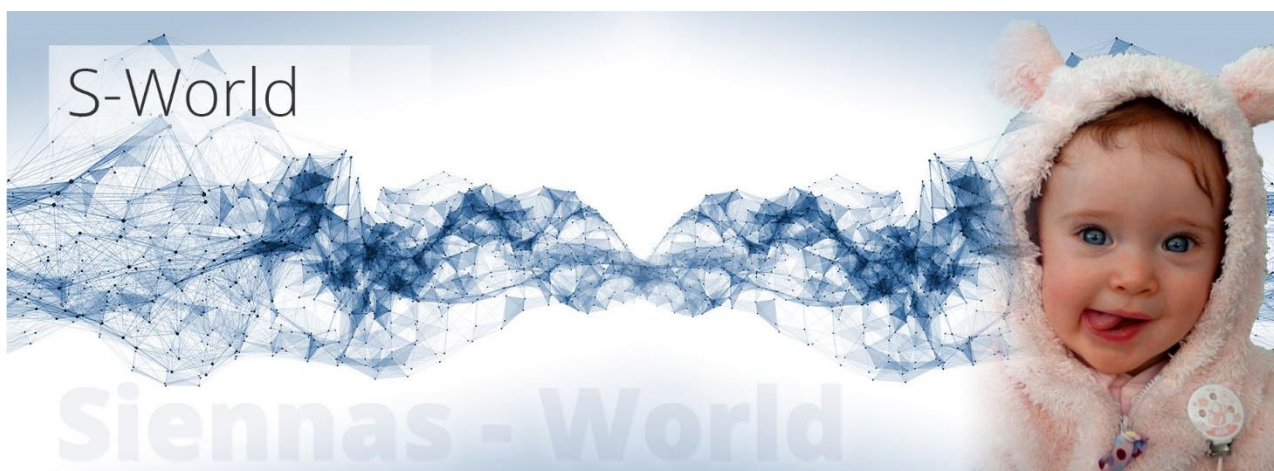
S-World UCS™ is a design for an MMO game that shows how to make a business and economic empire so rich - one could invest in super projects such as 'African Rain' or 'Universal Colonization.' The game teaches, simulates, and shines a light on the S-World Network's future ambitions.



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

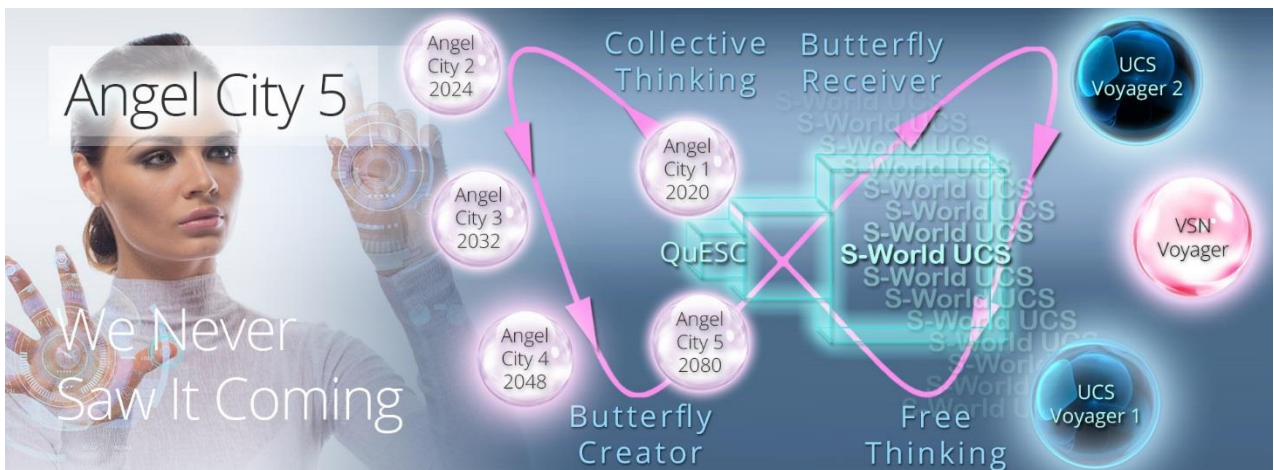
S-World UCS™ Angel Cities (2012 - 2017)



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

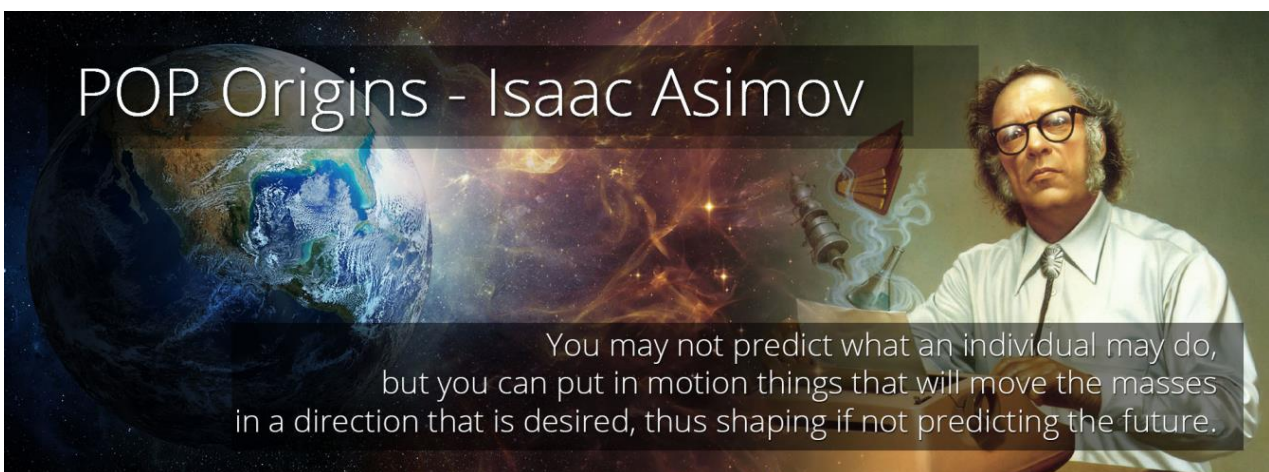
Set in the years 2048 and 2080, Angel Cities 4 and 5 are the nerve centre for the S-World network's long-term ambitions, described as a set of 'super projects.' In this simulation, we work within the M-Systems framework to plan the best Earth we can logistically create. And once the blueprint is set, 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

S-World Story 12. M-Systems and Special Projects then continues to list the first 16 Special Projects.

FROM S-WORLD STORY 12

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