



Lind Innovation  
124 W Polk #407  
Chicago, Illinois 60605

Jason Lind  
EVP / Chief Software Architect  
414.788.2820 (cell)  
[jason@lind-i.com](mailto:jason@lind-i.com)

## Foreword

Seven years ago, while enlisted in the United States Air Force, I read on Wikipedia that a consequence of P not equaling NP was that prime number distribution was random. Being the total armature mathematician I am I created a PowerPoint presentation entitled "P = NP and Riemann was Wrong" and presented it on eFnet IRC in #math under my usual pseudonym Odys3us. My attack was that since prime numbers are interdependent the series could not be defined as random and therefore if random number distribution was a requirement of P not equaling NP than clearly P was NP.

Most of the channel of course took this a joke, as did the man with the pseudonym Galois, until he realized my point was valid and I had demonstrated a legitimate attack on the problem. Galois, Dr. David Jao, educated at Harvard and MIT in math and then a crypto expert at Microsoft Research, and I became good friends and he eventually joined my firm in a non-compensated consulting role.

In the time that followed my research took me to a place that I could demonstrate that economic markets could be structured to make the entire world more intelligent and that that was the true definition of Artificial Intelligence that Turing was talking about. I wrote the following equation and used famous quotes to explain the variables in a paper that was widely panned as complete and utter insanity:

*Artificial Intelligence = Finite interaction is optimized through oligopolical competition, whereas non-finite processes are optimized by the free marketplace. Formal organizational group structure therefore must be oligopolical, but their interaction must be free. The individual is a monopoly.*

My paper, On Exchange Medium and Speculation <http://1drv.ms/1RelpRv>, released October 5<sup>th</sup>, 2011 demonstrates that statement to be true with game theory, Einsteinian physics and quantum physics and concludes: "As Gene Roddenberry, perhaps one of the greatest visionaries of all time, asked through the voice of Wesley Crusher "... so time and space and thought are not the separate concepts we understand them to be?" The answer is remarkably yes and so much more and you have the proof. Q.E.D."

For the original paper please see <http://1drv.ms/1RelrbP>.

Today I release the follow up paper which uses electronic circuit analysis techniques to define the structure of marketplaces and their relationship and influence to each other to mathematically demonstrate with set theory and differential equations how a Vinge-type singularity occurs. The processes to create such a singularity I define as Trans-Dimensional Engineering.

## Economic Circuitry: The Marketplace An Exercise in Trans-Dimensional Engineering

### Mathematical Notation

Symbol	Description
$\triangleq$	By definition, the author is defining the right and left side to mean the same thing
$\therefore$	Therefore, the author is saying the left statement therefore means the right statement
$\implies$	Implies, the author is saying the left statement implies the right statement
$\forall n$	For all $n$
$x \wedge y$	For $x$ and $y$
$X := Y$	For the statement $X$ statement $Y$ is true
$N \triangleq \overline{xy}$	A Boolean function with variables $x$ and $y$ that is defined by the statement $N$
$X \ni y$	Element $y$ is a member of set $X$
$f(n) = X$	Function definition, can take any number of parameters and produces $X$
$\bigcap_{n=j}^k f(n)$	For $n$ from $j$ to $k$ produce relational sets by $f(n)$ and perform an intersection operation across those sets
$\bigcup_{n=j}^k f(n)$	For $n$ from $j$ to $k$ produce relational sets by $f(n)$ and perform a union operation across those sets
$X_n$	Reads concept $X$ for variable $n$ , number of variables is not fixed

A relational set operation looks at the defined relationships between the elements on quantitative dimensional relationships and is not a simple intersection or union. Think of two groups of points in the three dimensional space that are partially interspersed with each other, the intersection is not about the points themselves but rather the boundaries their relationships define. They are finite in nature yet form something continuously recognizable.

A rudimentary attempt to mathematically define these relationships in ways that might be practicable in the future can be found here: <http://1drv.ms/1Reltk6>.

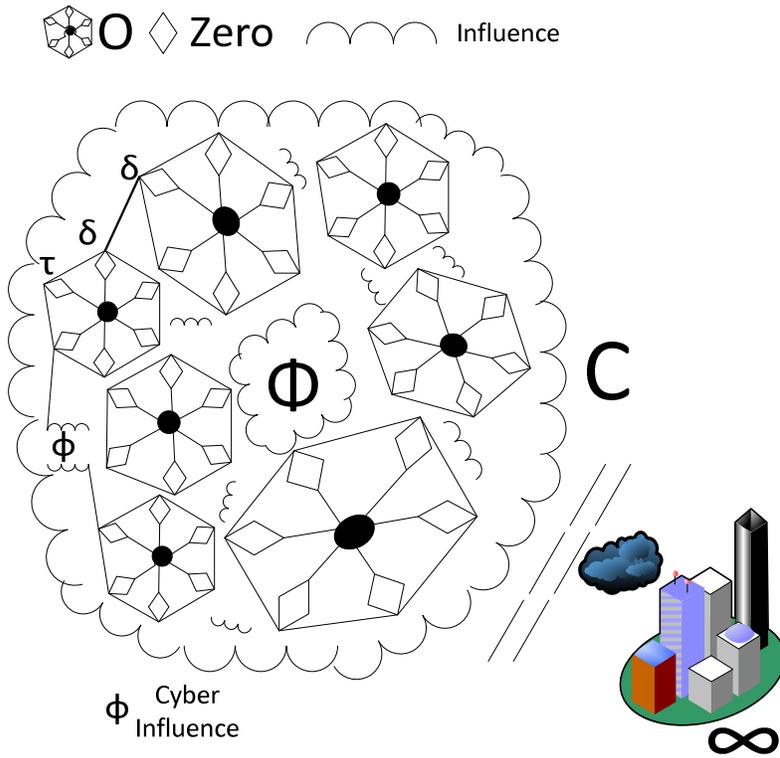
**Axiom 1.0 I think therefore I am**

To begin it is important to define what a person is, which according to my definition IS as singularity.

**Theorem 1 (Person):**  $+\infty = -\infty \triangleq \emptyset \triangleq \text{singularity} \triangleq \text{Self Awareness}$

**Theorem 2 (Current):**  $\text{Self Awareness} \Rightarrow \text{Thought} \therefore \text{Thought} \triangleq \text{Economic Current} \triangleq \{utility_{real}, utility_{imaginary}\}$

**Diagram 1: N-Dimensional Representation of a Corporation**



**Axiom 1.1 And one man in his time plays many parts**

For every person in the corporation there exists at least two organizations in which they are members.

**Theorem 3 (Delta-Delta):**

$$\forall O \wedge \forall \emptyset := O_n \ni \emptyset_k \wedge O_m \ni \emptyset_k \triangleq \overline{\delta\delta}$$

**Axiom 1.2 And all the men and women merely players**

An organization must be finite in nature for their connections, which are always cyber in nature, in order to approximate a delta-delta connection.

**Theorem 4 (Power):**  $\phi(\tau, \delta) = \{space_{\tau\delta}, time_{\tau\delta}, thought_{\tau\delta}\} \triangleq \text{Power}_{\tau\delta}$

**Theorem 5 (Influence):**

$$\bigcap_{\tau=-\infty}^{+\infty} \phi(\tau, \delta) \triangleq \text{Influence}_{\delta} \triangleq \Phi_{\delta}$$

**Axiom 1.3: They have their exits and entrances**

A person leaving or joining an organization warps the space-time-thought continuum of that organization causing the space-time-thought continuum of the entire corporation to warp. As a corollary cyber-connections between members that exist out of formal and finite organizations creates non-finite organizational structure that also warp the corporate continuum. Cyber-connections are both easy to create and difficult to completely destroy even after times of immense

conflict between the connecting people; such that even after a long hard battle the connections generally repair themselves with time. Even when someone formally leaves an organization their cyber-connection always remains.

**Theorem 6 (Transform):**

$$O_n + \emptyset_k = \Phi_{O_n + \emptyset_k} = \bigcup_{O_n = -\infty}^{+\infty} \phi(O_n, \emptyset_k) \triangleq \text{Transform}_{O_n \emptyset_k} \triangleq T_{O_n \emptyset_k}$$

**Axiom 1.4 All the world is stage; His acts being seven ages.**

The organizational inter-influence result in an artificial singularity, or corporation, which warps the space-time continuum of the physical world, effectively human minds ARE a force of nature no less significant than gravity.

**Theorem 7 (Transcend):**

$$\delta_{O_n} + \delta_{O_m} \Rightarrow T_{O_n O_m} \Rightarrow T_{C\infty}$$

My message to the finest pure mathematician of all time, Paul Erdős: This IS the book!

In the language of Gaius Julius Caesar:

*Quod Erat Demonstrandum* **In the Metaphysical Realm**

**Grand Hypothesis:** This is just as true in the physical as it is in the metaphysical. Our reality is defined by the bounds of our understanding as much as reality itself limited only by the natural laws of pure number theory. That P is simultaneously NP and vice versa. The critical points in number theory are primes, which are recursively defined and infinitely expand in many dimensions from the moment of big bang, making each point in time-space-thought a different point in the continuum, and consequently the laws of nature themselves change over vast differentials of time, space and thought.

$$s^2 = (\Delta r^2 + c^2 \Delta t^2) \Delta i^2$$