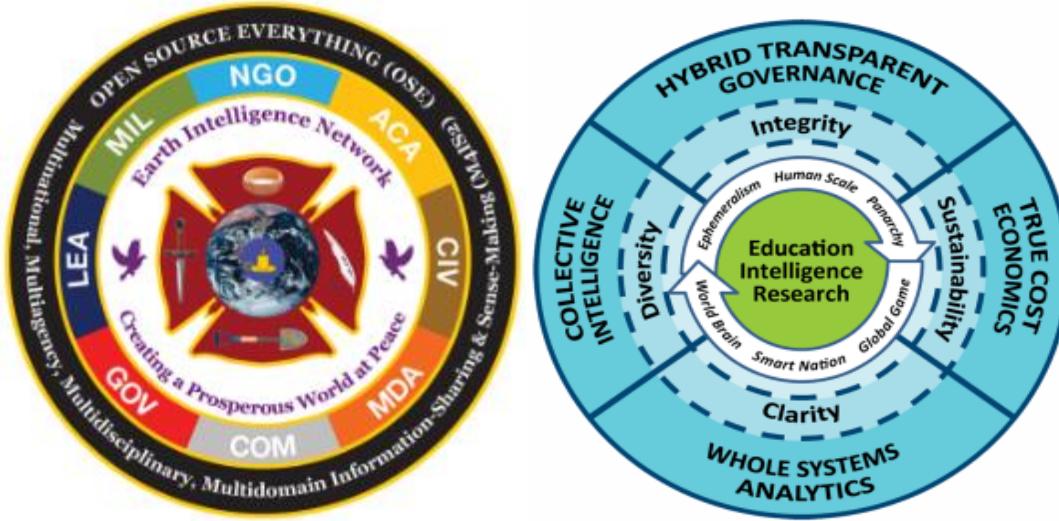


PROJECT RIG #UNRIG: improve #UNRIG's Earth Intelligence Network EIN with the firefly - heartbeat algorithm emulating Artificial Intelligence A.I. neural net activity / NATO Battlefield Digitization / Net Enabled Operations NEO / syntax - symbol set lexicon library. We can synchronize ourselves in space-time for common goals.

- Enhance EIN with NATO situational awareness swords to plowshare best practice
- Enhance EIN with NATO best practice of individuals joining (federated) groups
- Improve EIN with concepts and best practice derived from mankind's "giants"



Phi Beta Iota LOGO Phi Beta Iota's logo consists of the Whole Earth within a Rescue Cross, with four symbols: the bowl for food and water; the quill pen for education, communication; the shovel for construction, development; and the stiletto for the inevitable rogues that need "a time-out". On a white field we show our public purpose: creating a prosperous world at peace. Its original and long-term focus is on teaching citizens the urgency of demanding holistic analytics, true cost economics, and Open Source Everything Engineering (OSEE) as the foundation for enlightened self-governance. - SEE: LINK <https://phibetaiota.net/unrig/>

RIG #UNRIG's Earth Intelligence Network by supporting it, improving it, enhancing Phi Beta Iota's EIN Earth Intelligence Network with improved DARPA / NATO derived system of systems signaling, telemetry engineering research and NATO best practice a.k.a. The Heart Beacon Cycle Time – Space Meter and Applique Overlay (dashboard).

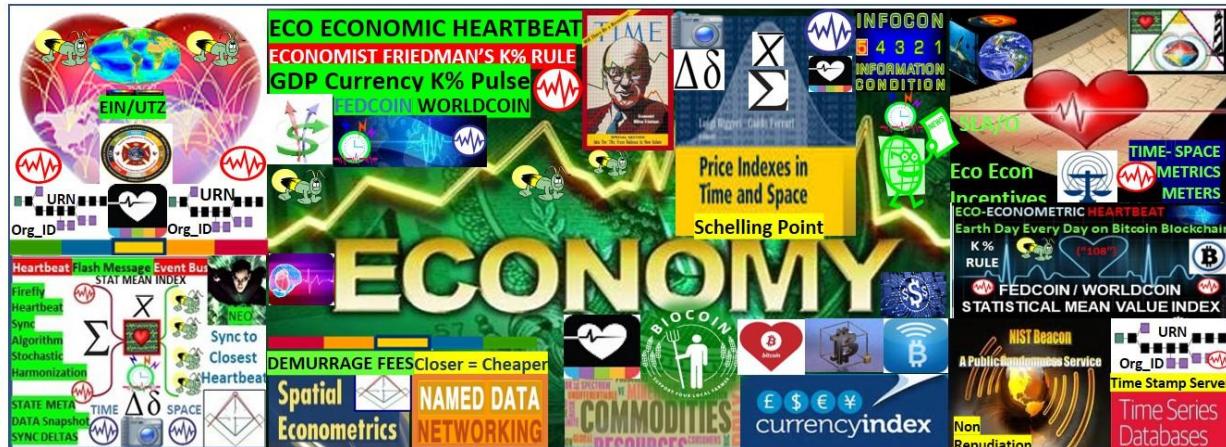
Update Global dashboards using an algorithm that emulates neural network activity namely, the firefly inspired heartbeat algorithm attributed to the Universities of Bologna Italy and Hungary - improved by matching the firefly synchronization activity to the

nearest heartbeat OPTEMPO cycle -- attributed to patent application 13/573,002 Heart Beacon Cycle Time – Space Meter [Github](http://github.com/Beacon-Heart): <http://github.com/Beacon-Heart>

PROJECT: rig #UNRIG Earth Intelligence Network with a neural network emulation algorithm - the firefly inspired heartbeat synchronization algorithm co-designed by the University of Bologna, Italy / University of Hungary

[#UNRIG](#) seeks to communicate to all citizens the possibility of an ethical, legal, non-violent restoration of integrity to the US Government.

Phi Beta Iota "We do this, in an expansion of Buckminster Fuller's practice, by enabling hybrid governance through ethical evidence-based decision-support in the context of transparent, truthful networks of trust. The outermost border summarizes our two innovative methods for which we are the foremost proponents in the world: Open Source Everything (the only technical solution that is affordable, inter-operable, and scalable) and Multinational, Multiagency, Multidisciplinary, Multi-domain Information-Sharing and Sense-Making (M4IS2, the only human solution that assures holistic analytics and a grasp of true cost economics)".



Phi Beta Iota "Our mind-set is deeply rooted in Ecological Economics as pioneered by Dr. Herman Daly and subsequently described in books by the titles of Ecology of Commerce and Natural Capitalism. We believe that the Earth is amply sufficient to provide every human now living with a life that is both prosperous and secure — where we have gone wrong is in allowing a select few to internalize profit and externalize cost"



Earth Intelligence Network

Public Intelligence in the Public Interest

Quote attributed to Phi Beta Iota "Government — in isolation from the other seven tribes shown in the EIN logo — has failed. We must move to hybrid transparent governance, leveraging a combination of collective intelligence and true cost economics, to achieve whole systems understanding through holistic analytics"



Simple Always* Wins Concepts caveat: * when standing on the shoulders of giants

#Economic #RESET is a mathematical certainty. Do we #RESET the global system of systems as is or will we re-engineer using NATO / DARPA / DOD's system of systems engineering framework standing on the shoulders of giants to convert swords to plowshares? STANDING ON THE SHOULDERS OF GIANTS Economist Milton Friedman, Admiral Grace Hopper, Inventor Thomas Edison, Economist Bernard Lietaer, sustainable giant Buckminster Fuller, Doctor Martin Luther King Junior, are a few of the giants / luminaries that the author attributes useful additions forming an adaptive procedural template checklist of useful ideas, processes, procedures, concepts... etc., that a trade federation would use to accomplish it's goals.

ECO Economic Epochs: Eco incentives integral to System of System SoS Frameworks

Eco Economic incentives:



DARPA / NATO System of Systems Engineering framework

- Syntax lexicon library with 300 + use cases, thousands of message sets
- Syntax alpha-numeric brevity OPSCODES are mapped to symbol sets (A.I.)
- NATO bases are cities that transact everything described by Host Nation Agreements easily converted to Service Level Agreement smart contracts

EPOCHS: all things internet, net of money are formed using:

- (1) Epoch time cycles
- (2) Syntax (not) used / during epoch time cycles as instructions (if, then, else)

"In the beginning (of time), there was the word" (syntax)

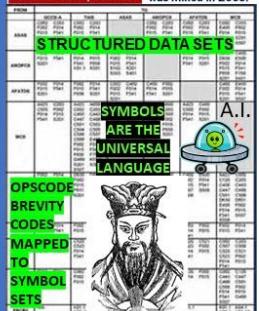


Genesis Block

The first block of a blockchain

GENESIS BLOCK
BLOCK 0
BLOCK 1
BLOCK 2

The Genesis Block is the ancestor to every block in the blockchain.
The first ever Genesis Block, from the Bitcoin blockchain, was mined in 2009.



TITLE: Systems of Federated Systems signaling, telemetry support framework for all things net, net of programmable money, econometrics for DAO Distributed Autonomous Organizations / trade federations participating in a new model eco sustainable programmable economy

DESCRIPTION: Adaptive Procedural Template forming / supporting a system of federated systems with a distributed signaling, telemetry (OPORD Annex K) framework derived from DARPA / Pentagon / NATO's Common Operational Picture COP-SIOP Single Integrated Operational Picture / system of systems engineering family of systems dating from the mid 1990's (swords to plowshares) / German Army suggestion to use

COP - SIOP Battlefield Digitization Digital Dashboard procedures for OOTW Operations Other Than War circa 2003 as a swords to plowshares inspired project

USPTO 13/573,002: The Heart Beacon Cycle Time - Space Meter Adaptive Procedural Template (checklist of useful tools, procedures, products...).

FUNDAMENTAL TRUTH: All things internet, net of money blockchains are formed by unicast, multicast, anycast protocols. Programmable money's improvements are in cryptography.

Use Case: Gross Domestic Product GDP Index Economy / Eco Economic Epoch Heartbeats for the programmable economy

What is your solution framework based on EXISTING systems, code, best practice? Adaptive Procedural Template (checklist): Use case: GDP Index based Economy: Eco Economic Epochs Time-Space Meter Eco incentives, consensus, interoperability for the programmable economy, Earth Intelligence Network EIN / System of systems engineering framework from NATO Battlefield Digitization based on a German military idea to reuse Battlefield Digitization for OOTW Operations Other Than War circa 2003

Q: What's your vote for a one world currency for a one world government: 1. IMF's SDR basket 2. NESERA's QFS Las Vegas 3. Department of Commerce - Treasury - NIST QRNB at Boulder Colorado (Stephen King's The Stand's Free Zone) ? #IMF #NESERA #NIST

We have a clear and present opportunity to improve temporal, geo-spatial, syntactic - semantic consistency, interoperability among myriad programmable money memes among a federated, distributed system of systems supporting a distributed, equitable, Eco-sustainable, and programmable global Economic framework.

We can synchronize ourselves in time-space for common goals e.g., code an equitable, distributed programmable economy among trade federations (attributed to Law of Time . Org)

Eco_Econ_EPOCHS: It's about TIME: Eco incentives coded into the global programmable economic system of systems engineering framework based on NATO best practice into OPSCODEs mapped to symbol sets essential to Artificial Intelligence / man - machine interface - human interaction

The Heart Beacon Cycle Time - Space Meter USPTO 13/573,002 is an adaptive procedural template / checklist of ideas, methods, processes, procedures, algorithms, tools... used to organize a system of federated systems comprised of diverse groups, people speaking many different languages through the universal language of symbols

into Distributed Autonomous groups organized in time - space to achieve common goals such as establishing an Ecologically sustainable Economic heartbeat. This idea involves reuse of over 300 use cases supported by hundreds of message sets further described in spread sheet row - column format populated by thousands of brevity OPSCODES mapped to symbols essential to artificial intelligence man - machine interface. NATO bases are small cities that transact virtually every good, item, commodity with it's host nation. Why reinvent the syntax lexicon Rosetta Stone wheel? Think of this as a system of systems tool to accelerate an EIN Earth Intelligence Net - an A.I. driven system of distributed systems digital dashboard among trade federation (s)

Use Cases: Eco #Economic Epochs Time-Space Meter #ecology Eco incentives, consensus, interoperability, sync, stochastic UTZ harmonization for programmable money, economy

Use Case: Ecologically sustainable economic incentives coded into the programmable economy based on a tokenized economy - It's about Time - Space, syntax symbol set lexicon library supporting the Earth Intelligence Network / Noosphere. Main use case: GDP Gross Domestic Product Index based Economy / National - Global currency

THESIS: All things internet, internet of programmable money are formed using:

1. Time epochs created by oscillating quartz crystal based silicon chips
2. Syntax used / not used as programming instructions during epoch time cycles

FUNDAMENTAL TRUTH: blockchains are formed by unicast, multicast,anycast and workflow filters. Programmable money's improvements are in cryptography. Internet 3.0 and the new web will be based on the original structure described by Stanford University. There are no packets, frames, blocks, Satoshi's traversing the net, stored in a blockchain cube.

INTERNET BUILDING BLOCKS: Time epochs / syntax are the two main internet, internet of money building blocks in coding the Artificial Intelligence A.I. powered economic system of systems / Earth Intelligence Network EIN / Web 3.0 and the programmable economy in terms of temporal consistency, interoperability, and consensus.

Cryptocurrency units of value events, transactions non-repudiation at any time – space, place in the future will be expected required and will be derived from a physical (photonic) light process. Physical is the opposite of abstract in light of SCOTUS Alice 2014 ruling #cryptocurrencies

There is no such thing as no "layers", "bots", "motes", "packets", "frames", "Satoshi's" traversing the internet, net of #money forming "blocks" on a "blockchain" that stores

"tokens" in a cube with height, width, volume. All ignore SCOTUS Alice 2014 ruling "claims may not direct towards abstract ideas"

Programmable #money / #economy... gold, #Bitcoin as "digital gold" — fool's #gold? How will programmable money for the programmable economy be coded? A one world #currency needs a stochastically harmonized, synchronized Universal Time Zone UTZ / event bus

FIAT based economies, currencies, units of value have always needed a RESET which is what the World Economic Forum, POTUS (in his commentary on the Las Vegas Mandalay Bay shooting with GIZA featured) et al have stated will occur starting in 2021. The plan is for the currency to be pegged to caches of gold, treasure to suddenly appear which will invoke the "golden rule". Several other luminaries like Edison (Edison's monetary option), Economist Milton Friedman, Bernard Lietaer (TRC Trade Reference Currency) have describe index funds to base a nation's / world currency - economy: "In the beginning (of time), there was the word" (syntax) = form for all things internet, net of \$\$\$

A timely solution for the "Great RESET" of 2021: Given: "Great #Economic RESET" of 2021 looming, consider a tangible, commodity backed currency unit of value, trade where closer = cheaper given less fuel is consumed: GDP Index Economy powered by #Ericsson #Erlang time algorithms / time equations / NIST QRNB Quantum Random Number Beacon

Nobel Prize winning economist Milton Friedman's K% rule is a GDP Gross Domestic Product economic heartbeat, a GDP pulse. Add a crypto coin index to commodity index and QRNB for non repudiation at any location / time in the future = basis for a one world economic system of systems unit of value

WorldCoin <https://twitter.com/i/status/1315621638579388418>

SUMMARY: GDP INDEX ECONOMY: Thomas Edison and Henry Ford proposed a currency based on a basket of crop commodities because Edison felt that crops held their value over time - enter climate change reality and the merits of this view are self evident. Later in the 1990's, Belgian Economist Bernard Lietaer proposed a commodity based TRC Trade Reference Currency based on demurrage charges to support logistics of goods moved from supplier to consumer called the TERRA TRC. Prior to his passing, Nobel Prize winning economist Milton Friedman described an "economic heartbeat" in his K% rule where the Treasury increases the money supply increases and decreases pegged to the GDP index. Nations / the world's economy would be managed as a composite value index similar to for example, Vanguard's index funds, commodity index funds. A snapshot or sync delta value taken at a predetermined time interval (micro-

cycle to macro cycle) to determine the statistical mean value of the goods, commodities that comprise a GDP index is performed and used as the value of the organization's / nation's / world's unit of value as the basis for currency exchange. This process reuses DARPA / NATO's Battlefield Digitization, Net Enabled Operations NEO procedures that have supported the Pentagon's / NATO's digital dashboards since the 1990's.

PROJECT BEACON: Reuse NATO's system of systems syntax lexicon OPSCODE brevity code structured data exchange, heartbeat micro to macro cycle Universal Time Zone UTZ sync to support an EIN Earth Intelligence Network neural net emulation. We have a clear and present opportunity and responsibility to improve temporal, geo-spatial, syntactic - semantic consistency, interoperability among myriad programmable money memes among a federated, distributed system of systems. Beacon Communities supported by an open source Earth Intelligence Network EIN powered by a quantum random number beacon blockchain - it's about time (space, syntax lexicon, econometrics..)

PROJECT BEACON: Code Eco sustainable incentives into the world's programmable economic system of systems engineering framework reusing / leveraging NATO systems of systems engineering best practice. Reuse OPSCODE brevity codes mapped to message symbol sets essential to Artificial Intelligence / human interaction (i.e., man — machine interface). The Heart Beacon Cycle Time - Space Meter USPTO 13/573,002 is an Adaptive Procedural Template: Use Case: Eco Economic Epoch Heartbeats for the programmable economy.

USE CASE: Code Eco sustainable incentives into programmable economic framework reusing / leveraging NATO systems of systems engineering best practice. Form federations of Distributed, Autonomous Organizations DAO communities, states, sovereign nations using an adaptive procedural template checklist promoting synchronization among geo-spatially and temporally dispersed groups using a common syntax – symbol set lexicon. Federated groups activities are synchronized geo-spatially across time - space to achieve synergy, synchronicity of events orchestrated from micro to macro cycles from grassroots to capitals.

1. Reuse OPSCODE brevity codes mapped to message symbol sets enabling Artificial Intelligence / human interaction (i.e., man — machine interface).
2. Apply lessons learned (bandwidth discipline, interoperability, OPTEMPO sync cycles... intrinsic to NATO SOP swords to plowshares following German military proposal use cases circa 2003.

SYSTEM OF SYSTEMS ENGINEERING: NATO has invested 30 years of mapping OPSCODE brevity codes to symbology / symbols / symbol sets contained in 300 plus message set /

use cases as part of Battlefield digitization, Net Centric Warfare NET Enabled Operations NEO NETOPS. Blockchain, crypto currency developers are recreating, reinventing this decades old, tedious, time intensive, labor intensive, expensive structured data exchange... wheel. It may be stated that this project is a swords to plowshares initiative

PATENT APPLICATION USPTO 13/573,002 The Heart Beacon Cycle Time - Space Meter USPTO 13/573,002 is an adaptive procedural template / checklist of ideas, methods, processes, procedures, algorithms, tools... used to organize diverse peoples speaking many different languages through the universal language of symbols into Distributed Autonomous groups organized in time - space to achieve common goals among individuals organized into federated groups in DAO (s) Distributed Autonomous Organizations - a RAND Corporation term (DoD funded Think Tank) circa 2001. Each item in the procedural template checklist links to detailed treatise (s)

The Heart Beacon Cycle Time - Space meter is a signaling, telemetry distributed systems engineering framework improving temporal, geo-spatial, semantic - syntactic sync & consensus among DAAE Distributed Autonomous Automated Economy system of systems reusing Battlefield Digitization, Net Enabled Operations engineering swords to plowshares . Eco sustainable incentives integral to an Economic system of systems SoS engineering framework used by NATO for decades. Digital Nations need an (Eco sustainable) Economic Heartbeat & a consistent syntax lexicon library. Crypto economics needs a universal syntax lexicon digital base Artificial Intelligence A.I., quantum blockchain heartbeat beacon to synchronize, sample tokenized commodities across a stochastically harmonized UTZ Universal Time Zone using the firefly-heartbeat algorithm

SWORDS TO PLOWSHARES: The Heart Beacon Cycle Time - Space meter is a swords to plowshares DAO Distributed Autonomous Organization project using NATO's Situational Awareness system of systems engineering framework, processes, procedures and internet building blocks to establish an Ecologically sustainable Economic Heartbeat, neural network emulation for the EIN Earth Intelligence Network and heartbeat sync pulse for a Universal Time Zone UTZ supporting a one world currency. Its syntax lexicon library of OPSCODE brevity codes used in programmable money, the programmable economy is descriptive of all things internet, internet of money down to the quantum computing, quantum blockchain level. We can synchronize ourselves, our cities, towns, cyber-communities in time — space for a common purpose: shared, common, ecologically sound, responsible econometrics.

COA Course of Action: reuse of over 300 NATO cases supported by hundreds of message sets described in spread sheet row - column format populated by thousands of brevity OPSCODES mapped to symbols essential to artificial intelligence man - machine interface. NATO bases are small cities that transact most goods, commodities with its

host nation. Why reinvent the syntax lexicon Rosetta Stone wheel? This is a system of systems tool to accelerate an EIN Earth Intelligence Net – see Project #UNRIG for more information

DECISION POINT: Economic #RESET is a mathematical certainty. Do we RESET the global system of systems as is or will we re-engineer using NATO system of systems engineering standing on the shoulders of giants

1. CLIMATE CHANGE: IF / WHEN: Climate Change causes a drop in crop commodity food production by 20–25 % while population continues to grow, THEN it follows that this condition will become a matter of national security. It's TIME to implement an Ecologically Sustainable Economic Heartbeat ELSE face > greater chaos by not leveraging proven system of system structured data exchange methods. An ecologically sustainable economic heartbeat is needed. Why wait until crisis, DEFCON 2 stage?
2. CLIMATE CHANGE: IF climate change causes a drop in crop commodity by 20–25 % while population grows, THEN this condition will become a matter of national security. THEN this will require revisiting Belgian Economist Bernard Lietaer's TRC Trade Reference Currency ELSE face >socio economic chaos TERRA Trade Reference Currency by Economist Bernard Lietaer
LINK <http://lietaer.com/2010/01/terra/>

ECO INCENTIVES: Ecologically sustainable economic transactions need to be incentivized among the world's Ecological and Economic system of systems. The world's systems need to be time-space synchronized, stochastically harmonized across the one world, global UTZ Universal Time Zone via heartbeat messages using universally shared, standards based OPS CODE brevity codes drawn from a universal structured data exchange syntax lexicon with over 300 use case templates e.g., NATO's lexicon library

SPACE THE FINAL FRONTIER: Reuse of DARPA - NATO's structured data exchange that maps data element OPS CODES to symbol sets is key to Artificial Intelligence #AI man - machine interface, consensus, consistency among myriad #blockchain programmable #money memes, metaphors... Given space travel risks, navigation based on consciousness / telepathy (use of symbols not words), a consistent syntax lexicon to communicate with #UFO EBO's that are likely Artificial Intelligence AI drones is reuse of DARPA - NATO's structured data exchange that maps data element OPS CODES to symbol sets. Trade with E.T. / EBO's (will) requires a consistent supply chain lexicon

NOBLE PRIZE WINNING ECONOMIST: Milton Friedman's K% rule is an "economic heartbeat". K-Percent Rule DEFINITION: The K-Percent Rule proposal by economist Milton Friedman was the central bank should increase the money supply by a constant

percentage every year. The K-Percent Rule proposes to set the money supply growth / reduction at a rate equal to the growth of real GDP each year. K-Percent Rule — Investopedia <http://www.investopedia.com/terms/k/k-percent-rule.asp>

INTERNET BUILDING BLOCK: HEARTBEAT ADMINISTRATIVE INTERFACE: SCOP

Administrative Interface as an Internet, net of Money configuration tool. SCOP is a tool that exemplifies how the internet really works. SCOP is a web application, PHP based, that is a front-end to heartbeat. . SCOP can start/stop services, view/edit configuration files, make backups, take a server online/offline, add/remove virtual/real servers, etc.

WEB 3.0 MEMES / METAPHORES: There are no levels, layers, packets, frames, bits, ether gas, hashgraphs, bytes motes, block chain blocks, pings, packets... There are only 1) epoch time intervals, 2) syntax used as if, then, else instructions. Time epoch time cycles used / not used to parse, process syntax as instructions are the only building blocks available to scale the blockchain. Blockchain scaling usually involves a discussion of "layers" when the reality is that parsing, processing syntax (OPSCODE brevity codes, shards, hashes) is passed from the genesis Epoch Time Cycle 1 to a temporal follow on epoch time cycle often involving geo-spatial, temporal separation. See Alice ruling.

QUANTUM COMPUTING: the use of quantum-mechanical phenomena such as superposition and entanglement to perform computation. Quantum computers are believed to be able to solve certain computational problems, such as integer factorization. in a quantum Turing machine, the difference is that the tape exists in a quantum state, as does the read-write head. This means that the symbols on the tape can be either 0 or 1 or a superposition of 0 and 1; in other words the symbols are both 0 and 1 (and all points in between) at the same time. While a normal Turing machine can only perform one calculation at a time, a quantum Turing machine can perform many calculations at once. The programmable economy will be anchored by quantum computing -for example, NIST's Quantum Random Number Beacon

1. Quantum Random Number Generator: The NIST method generates digital bits (1s and 0s) with photons, or particles of light, using data generated in an improved version of a landmark 2015 NIST physics experiment. That experiment showed conclusively that what Einstein described as "spooky action at a distance" is real. Researchers process the spooky output to certify and quantify the randomness available in the data and generate a string of more random bits.
2. The NIST Randomness Beacon Broadcasts a randomness pulse every 60 seconds Each pulse commits to a fresh 512-bit random string Each pulse is time-stamped and signed. Beacon periodically outputs a pulse containing 512 fresh random bits, time-stamped, signed and hash-chained. For example, each pulse also pre-

commits to the randomness to be released in the next pulse. The latter enables users to securely combine randomness from different beacons. The Beacon protocol also specifies the interface for users to interact with the Beacon, in order to obtain information about past pulses. A randomness beacon produces timed outputs of fresh public randomness. Each output, called a pulse, includes metadata / cryptographic elements. The main goal of the NIST Random # Beacon is to serve as a baseline for deployment of many interoperable beacons
NIST: <https://csrc.nist.gov/CSRC/media/Presentations/The-NIST-Randomness-Beacon-2-0/images-media/SciDay18-poster-beacon-v20181022.pdf>

Quantum Random Number Beacon ! " NIST BOULDER | The BIG Bell Test: In 2015, NIST was one of the first groups to carry out a complete test of Bell theorem using quantum states of light, and conclusively show the presence of this "spooky action." However, in that experiment the decisions about how to carry out the measurements were made by random numbers generated from different physical processes. <https://thebigbelltest.org/team/nist-boulder/>

IEEE Article: Quantum Computing Error Correct QEC is getting practical February 25th 2021

Quantum Error Correction QEC, in combination with the theory of fault-tolerant quantum computing, suggests that engineers can in principle build an arbitrarily large quantum computer that if operated correctly would be capable of arbitrarily long computations. This would be a stunningly powerful achievement. The prospect that it can be realized underpins the entire field of quantum computer science: Replace all quantum computing hardware with "logical" qubits running QEC, and even the most complex algorithms come into reach. For instance, Shor's algorithm could be deployed to render Bitcoin insecure with just a few thousand error-corrected logical qubits.
LINK: <https://spectrum.ieee.org/tech-talk/computing/hardware/quantum-computer-error-correction-is-getting-practical>

Speaking of quantum computing... other than the ubiquitous </108> {"108"} heartbeat message sending start, stop, TTL Time To Live commands to algorithmic HFT trade to master controllers, how will stock, commodity, crypto etc. markets be mitigated, moderated among the quantum computing haves / have nots? speaking of (Borg) cubes, how will market trade sessions be mitigated, moderated among quantum haves and have nots? i.e., QCCS Quantum Computing Control System [#quantumcomputing](https://tinyurl.com/e4h5wxk)

Speaking of the QFS Quantum Financial System with its HQ & data center in Las Vegas Nevada which to my knowledge does not make use of the Department of Commerce's

NIST National Institute of Science and Technology's QRNB Quantum Random Number Beacon and has it's own QRNB / QRNG, NIST's QRNB intent is to be interoperable with other QRNB's, therefore, this Max Planck Institute / Announcement is germane to a discussion of a one world government / one world economic system of systems: distributed quantum computers – will need (UTZ) stochastic harmonization (across time zones... eventually) Quantum systems learn joint computing Max Planck Institute: <https://www.mpq.mpg.de/6420133/02-quantum-systems-learn-joint-computing> #quantum #UTZ

The Department of Commerce funding NIST QRNB Quantum Random Number Beacon in Boulder Colorado's stated purpose is to provide a non-repudiation service of events (transactions) at any place, time in the future. This is an absolute must have for any digital currency in my opinion. The late Bernard Lietaer of Belgium's TRC Trade Reference Currency featuring tangible commodities (like Thomas Edison's crop commodity based monetary option of 1921) should be the models that benefit from quantum computing and the QRNB.

This Bloomberg article makes the case for cryptocurrencies based on quantum computing: A Swiss Company Says It Found Weakness That Imperils Encryption Ryan Gallagher, Bloomberg News/ Why not make use of NIST QRNB based in Boulder Colorado that is part of the Department of Commerce / Treasury? (Bloomberg) -- Security experts have long worried that advances in quantum computing could eventually make it easier to break encryption that protects the privacy of people's data. That's because these sophisticated machines can perform calculations at speeds impossible for conventional computers, potentially enabling them to crack codes previously thought indecipherable. Source:

Bloomberg: <https://www.bnnbloomberg.ca/a-swiss-company-says-it-found-weakness-that-imperils-encryption-1.1560323>

US Supreme Court Alice ruling "patent claims may not direct towards abstract ideas". Physical is the opposite of abstract. NIST Quantum Random Number Beacon "generated from different physical processes" Relevance: USPTO 13/573,002 The Heart Beacon Cycle Time - Space Meter describes a physical, US SCOTUS ALice compliant meme. Quantum Random Number Beacon ! " NIST BOULDER | The BIG Bell Test: In 2015, NIST was one of the first groups to carry out a complete test of Bell theorem using quantum states of light, and conclusively show the presence of this "spooky action." However, in that experiment the decisions about how to carry out the measurements were made by random numbers generated from different physical processes. <https://thebigbelltest.org/team/nist-boulder/>

US Supreme Court Alice ruling "patent claims may not direct towards abstract ideas". Physical is the opposite of abstract. NIST Quantum Random Number Beacon "generated from different physical processes" USPTO 13/573,002 in my opinion, was the first and more importantly, the best meme to universally describe, metric, meter and monitor programmable money transactions - based on a US Department of Commerce / Department of the Treasury organization as opposed to a 3rd party, private organization

GOOD VIBRATIONS, BAD VIBRATIONS: AMERICAN AXLE V. NEAPCO RULING Judge: "an inventive concept to instead focus on the reliance on Hooke's law, and predicted that because all inventions depend to some extent on the operation of unstated natural laws, the majority's opinion would open the door to Section 101 challenges in practically every patent case. Tesla: "think of energy, frequency, and vibration" Judge Moore also took exception to the majority disregarding the use of a cardboard liner as an inventive concept to instead focus on the reliance on Hooke's law, and predicted that because all inventions depend to some extent on the operation of unstated natural laws, the majority's opinion would open the door to Section 101 challenges in practically every patent case. Article source: <https://bilski.typepad.com/blog/2018/03/good-vibrations-bad-vibrations-american-axle-v-neapco-ruling.html>

United States Patent Application: 0160358256[0056] In accordance with an example embodiment of the present invention, the amount of an investment required from a speculator is calculated by executing the following cost of speculation equation:
 $V \cdot \int_{t_0}^T | \log(P) - \log(\Delta P) | / R \, dt$. The variables for the cost of speculation equation are as follows: P represents a variable of price, P(t) is a variable function of price over time in a given market, .DELTA.P represent a speculative price function. P(t) can mathematically represent the future prices as functions of price over time. The function value of R(t) is a predetermined value for the rate of return. For example, for R(t), the value can be 100% annualized so for a t in years R(1)=2, R(2)=4 and R(0.5)=1.414, but as would be appreciated by one skilled in the art, any function is possible. The value for V(t) at any given time is the expected value to the market (e.g., volume of goods to trade multiplied by the market commission) The value for V(t) can be updated empirically as the commodities market functions by calculation as a moving average of volume times the markets total transactional overhead charge. Source / Attributed to: Noah Healy Data Scientist at Castle Hill Gaming strategic design for (commodity) markets drastically lowering transaction costs while increasing returns for informed speculators to launch a global economic boom. Price discovery method and means:

Source: <https://tinyurl.com/4w4m359h>

INTERNET TREATISES: Time filtered and spatially metered reports are comprised of state meta-data snapshot / heartbeat message / sync delta messages where state meta data

is harvested during micro-cycles then posted / displayed during longer macro-cycles
See hop count treatise referential to internet / TCP/IP treatises

1. IEEE 802.11AG is used for hop by hop detection and control for epoch assignment and hop counts management and for hop by hop detection function to determine hop by hop count corresponding to machine readable and executable null / 0 and steps from null representing hop counts e.g., +1, +2, +3, +4 and / or -1, -2, -3, -4 Paul Revere linear, sequential metaphor indicating distance traveled in context with router / server / switch / node traversal
2. IEEE 802.11 HbH hop by hop control described, represented by USPTO 13/573,002 Paul Revere, rain drop in pond meme - metaphor metrics denoting increases / decreases in thresholds intensity, duration and hop count sums

USPTO 13,573,002 electric meter claim based on electric dipole effect: closer is cheaper given less infrastructure needed given energy attenuates over distances

- data over energy link where #energy pulses constitute a method and means to transmit data over electric wired, wireless pathways
- electric dipole effect Radio Wave Properties: Electric and Magnetic Dipole Antennae LINK: <https://youtu.be/wUpOlqbHcjI?t=111>
- water drop in pond meme
- Paul Revere linear, sequential

Sync Deltas = changes from one epoch time cycle to the next: crypto currencies tethered to tangible commodities formed into indices of Delta-1 assets: Linear Finance (LINA) is a cross-chain Decentralized Delta-One Asset Protocol with Unlimited Liquidity. It is the first protocol that allows users to cost-effectively create, trade and manage liquid assets (Liquids) and creative thematical Digital Traded Funds. Linear Buildr is a decentralized application for staking and building LUSD, accepting a mixture of LINA tokens and other major cryptocurrencies. Linear Exchange enables trading of a variety of liquid assets (Liquids) based on spot cryptocurrencies, commodities, and thematic indexes with nearly instant confirmation time and immediate finality.

Source: <https://lnkd.in/dmTaeHJ> #cryptocurrencies #Commodities #Indices

USPTO 13/573,002 The Heart Beacon Cycle Time - Space Meter is descriptive to the quantum computing level and SCOTUS Alice in Wonderland ruling... SNAP ! :) waves (water drop in pond meme) single photon shifts (Paul Revere meme) - FutureMan likes ! "Our work provides a pathway towards extreme mechanical nonlinearities, and towards

#quantum devices that use mechanical resonators as qubits" <https://www.nature.com/articles/s41534-021-00393-3>

Financial Nostradamus / FutureMan fusion: Veritaseum is a blockchain-based fintech software company which delivers global access to peer-to-peer capital markets through its decentralized platform, digital asset research, and transfers. At heart, the project seeks to level the economic playing field by creating software which enables participation in P2P capital markets without intermediates like banks, brokers, financial advisors, and other mediators. The use case of VERI token is to redeem with Veritaseum software for advisory services, research and to gain entry into Veritaseum's autonomous financial machines, P2P value trading system, and P2P letters of credit. The platforms utility token VERI is used to purchase access to the platform's products and services, which range from asset tokenization to financial research data and even self-custody escrow services. VeADIR stands for Veritaseum Autonomous Distributed Interactive Research. It is the core component of the platform. It gives exposure to vetted research subjects and serves opportunities to grow its asset base through positive risk-adjusted returns. For instance, if someone wants to invest in an ICO and needs comprehensive information to weigh the risks, they can submit a query via VeADIR, pay with VERI and receive the requested information from Veritaseum. Research results then are fed back into the VeADIR system, and the cycle continues. All information is transmitted in machine learning language and needs to be translated to common vernacular using smart contracts. Source: <https://cryptonews.com/coins/veritaseum/>

#Veritaseum / Secrets of Synchronization / Particle - wave duality (#quantum) firefly pair coupling to synchronize across time - space via firefly-heartbeat algorithm for stochastic harmonization, UTZ synchronization USPTO 13/573,002 @ 8:10: https://youtu.be/t_VPRCtiUg?t=490

INTERGALACTIC / UNIVERSAL TIME - SPACE SYNCHRONIZATION: The Heart Beacon Cycle Time - Space Meter and it's use cases are intended to bridge humanity from our present condition to a higher consciousness described by Extra Terrestrial Groups and organizations like the Law of Time dot org with the Noosphere concept

Message about the Gregorian Calendar / Law of Time dot org: 13 MOONS OF PEACE

The 13 Moon calendar is a solar-galactic cycle that meshes the 365-day third-dimensional solar cycle with the 260-day fourth-dimensional galactic cycle (Tzolkin) every 52 years.

The 365-day orbit of Earth around the Sun naturally divides into thirteen 28-day sequences ($13 \times 28 = 364$) which correspond to the thirteen lunations occurring during one solar year, plus one extra day, July 25, the Day Out of Time, a day to practice time is

art and peace through culture. Its daily use helps entrain the mind into the threshold of galactic consciousness.

The 13 Moon/28-day calendar embraces and synchronizes all true calendrical and mathematical systems, from lunar calendars, to the Mayan long count, to the Elder Futhark runes, to the I Ching hexagrams. In other words this system reveals a master matrix, which contains all other systems.

In the Gregorian calendar there is little cyclic or periodic order. Months are uneven; the length of months does not correlate with number of seven-day weeks, and the numbers change every month. <https://lawoftime.org/education/>

"One people, one Earth, one Time": "The times we are living in require higher thinking. There has never in the history of the Earth been a time like this. We are now participating in what is called the biosphere-noosphere transition: When life on Earth (the biosphere) evolves into an awakened planetary mind (noosphere)".

"Only by lifting our minds to planetary consciousness and beyond can we realize solutions to the multiple challenges facing our planet today. With a new consciousness we can effectively educate and mobilize humanity to an unprecedented level of creative problem solving, and realize a positive future." Source: <http://lawoftime.org>

S&P 500 Standard and Poor's crypto currency index: Q: which algorithm is best at sampling, reporting (heartbeat message bus) index fluctuations across UTZ time zones providing stochastic harmonization? (opinion: firefly-heartbeat algorithm) (Luxor Egypt: "the shortest path to the knowledge of truth is nature) Article: S&P Standard and Poors to launch cryptocurrency index fund in 2021:

LINK <https://en.criptovalutenews.com/standard-cryptocurrencies-poors-is-about-to-launch-a-separate-index/>

Heart Beacon Cycle Time – Space Meter: One method fits many not one size fits all

USE CASES: Adaptive Procedural Template (checklist): Use Case: Eco Economic Epochs Time-Space Meter Ecologically sustainable Eco incentives, consensus, interoperability, stochastic UTZ Universal Time Zone harmonization & synchronization for programmable money / economy.



Fig 1: Universal Time Zone Synchronization / EIN Earth Intelligence Network

A One world currency implies the need for a stochastically harmonized, synchronized Universal Time Zone UTZ. PROJECT BEACON: Reuse NATO's system of systems syntax lexicon OPSCODE brevity code structured data exchange, heartbeat micro to macro cycle Universal Time Zone UTZ sync to support an EIN Earth Intelligence Network neural net emulation. We have a clear and present opportunity and responsibility to improve temporal, geo-spatial, syntactic - semantic consistency, interoperability among myriad programmable money memes among a federated, distributed system of systems

USE CASE: Eco #Economic Epochs Time-Space Meter #ecology Eco incentives, consensus, interoperability, sync, stochastic UTZ Universal Time Zone harmonization for programmable money and the programmable economy.

"We can synchronize ourselves in time – space for a common purpose" Dr. Jose Arguelles of the Law of Time dog org: <http://lawoftime.org>



FIGURE 2: OPERATION RIG [#UNRIG](#) Earth Intelligence Network with a Heart Beacon Signals, Telemetry Sync, Syntax Lexicon Library neural network emulation

The Earth Intelligence Network will be a composite, system of systems comprised of many nations Telco mesh fabrics. Eventually, it will be formed from all nation states as a system of systems situational understanding type project that will arguably need a universal method and means to receive event and alert messages independent of protocol or programming language within the matrix if you will.

We propose a neural network emulation based on nature - fireflies - using an algorithm conceived by University of Hungary / Bologna Italy. Project Rig [#UNRIG](#): use an algorithm inspired by fireflies that emulates neural network activity for [#UNRIG](#)'s Earth Intelligence Network reusing tax payer paid for research and best practice into system of systems engineering Battlefield Digitization / Network Enabled Operations NEO swords to plowshares style following the German Army suggestion circa 2003.



FIGURE 3: Project rig #UNRIG's Earth Intelligence Network EIN with a system of systems Signals & Telemetry mesh derived from NATO's Battlefield Digitization, Net Enabled Operations NEO. We can synchronize ourselves in time-space for common goals.

This project can support with shared common Signals and Telemetry through OOTW reuse of Battlefield Digitization / Network Enabled Operations NEO, the Earth Intelligence Network and proposes a neural network emulation using the firefly-heartbeat synchronization algorithm conceived by U Hungary / Bologna Italy.

FIAT based economies, currencies, units of value have always needed a RESET which is what the World Economic Forum, POTUS (in his commentary on the Las Vegas Mandalay Bay shooting with GIZA featured) et al have stated will occur starting in 2021. The plan is for the currency to be pegged to caches of gold, treasure to suddenly appear which will invoke the "golden rule". Several other luminaries like Edison (Edison's monetary option), Economist Milton Friedman, Bernard Lietaer (TRC Trade Reference Currency) have describe index funds to base a nation's / world currency - economy: "In the beginning (of time), there was the word" (syntax) = form for all things internet, net of \$\$\$

Dogezer is a software development platform that allows team members to become product investors by investing their time and labor. Dogezer Solution Explained The Dogezer Platform is a SaaS solution which combines the functionality of Kickstarter, UpWork, GitHub, Slack, Jira, Google Docs, Dropbox and ICO analogues with a set of defined processes how these solutions relate to each other in a clear, transparent and predictable way. Dogezer will give an opportunity to start a project in a matter of minutes; organize a set of teams who will be working on the project; define how project contributions will be rewarded, and then drive the project to completion by utilizing skills of independent contributors all around the world.

Dogezer will implement most of the key tools used in software development as integrated pieces. Over time, the variety of services offered by Dogezer will grow, eventually resulting in a complete set of tools that are required to run a top-notch software development company. As a result, the Dogezer solution will become a single service, one-stop-shop that companies that operate in a traditional environment can replace their current fragmented landscape toolset. [LINK](https://dogezer.com/) <https://dogezer.com/>

The Heart Beacon Cycle is a procedural template framework that includes citations of required standards, processes, components / building blocks and conventions that are agreed upon as criteria required as a minimum to join trade federations.



FIGURE 4: The Heart Beacon Cycle HBC is an adaptive procedural template checklist of things, processes, tools, building blocks useful to form, maintain Eco-responsible trade federations. Source link: <http://sawconcepts.com/index/id3.html>

The Heart Beacon Cycle is a checklist., an adaptive, procedural template checklist for forming trade federations supporting ecologically friendly business transactions and Eco-friendly geo-spatial econometrics where closer is cheaper, closer is faster and most importantly, uses less environmentally polluting fuel. This strategy will significantly reduce the CO2 carbon footprint. Each item in the procedural template checklist links to a detailed treatise. We can synchronize ourselves and our cities in time - space for a common purpose: ecologically sound econometrics.

- A process defines “what” needs to be done and which roles are involved.
- A procedure defines “how” to do the task. Example: roles and responsibilities of the people (roles) assigned to do the work, tools and equipment to support individuals do their jobs, and procedures and methods defining how to do the tasks and relationships, work flows connecting steps between the tasks.

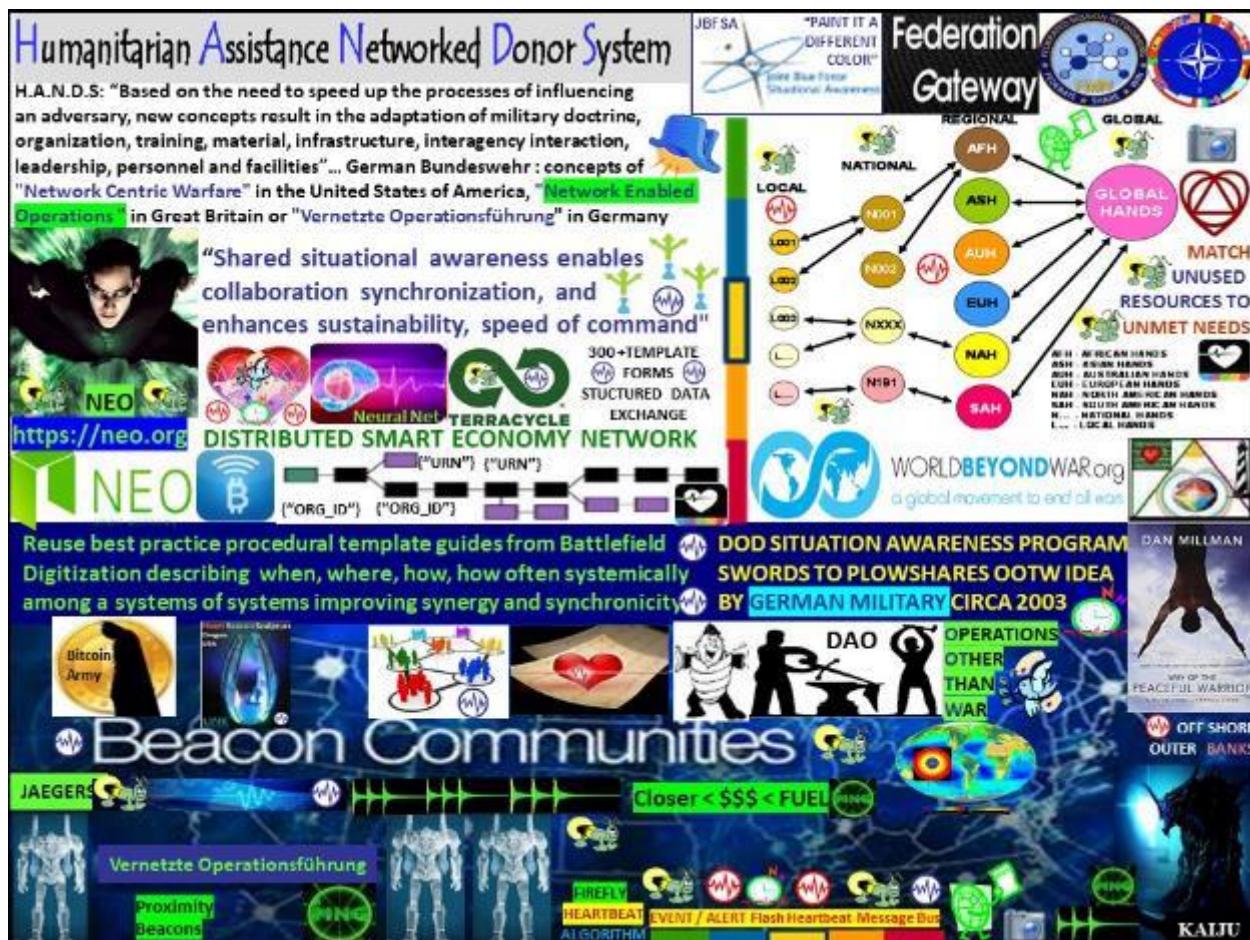


FIGURE 5: German Military H.A.N.D.S. O.O.T.W PROPOSAL H.A.N.D.S

The model template framework is the United States Army / Marine Corps Joint Battle Command JBC also known as Joint Blue Force Situation Awareness and it's associated Army Battle Command System ABCS referred to as Future Combat Systems FCS. The template system is part of a system of systems. It's interaction with many other intelligence, logistics, maneuver etc. systems participating in a system of systems. To achieve consensus, selecting the most widely implemented Situation Awareness System - - Joint Blue Force Situation Awareness or JBFSA US Army Communication Electronic Command CECOM's greatest invention – Blue Force Tracker. co-developed Marine Corps is the path of least resistance.

The military has always done one thing very well—form individuals into groups working synchronized in time – space (use of geo-spatial map overlays) towards accomplishing a myriad of missions such as transacting in food, water, fuel services in host nation agreements already established in most countries. and reused in German military OOTW Operations Other than War. Deriving common building blocks from JBFSA common to stock exchange, First Response Systems (heartbeat / heartbeat messages) is key

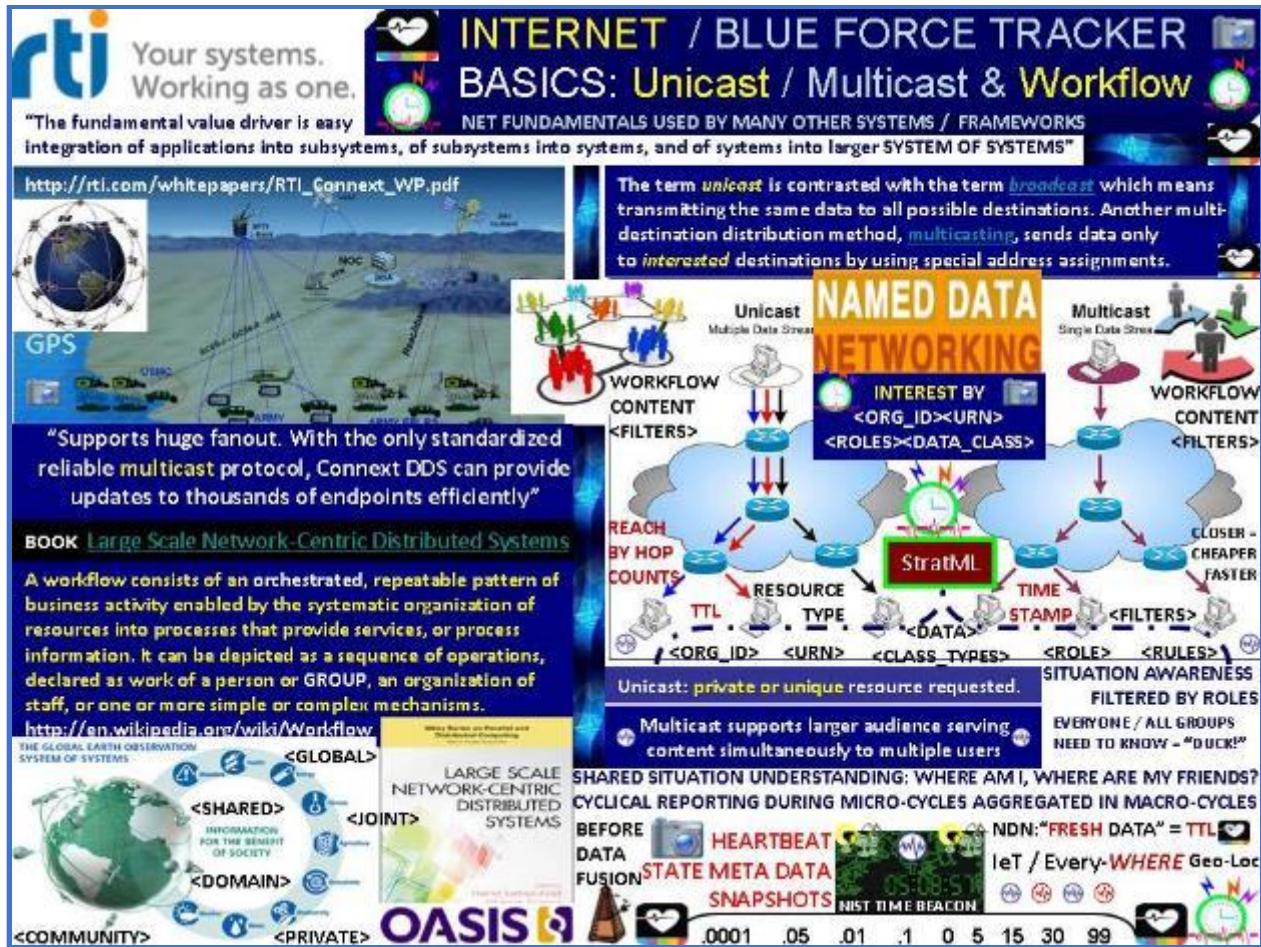


FIGURE 6: TEMPLATE SYSTEM OF SYSTEMS BLUE FORCE TRACKING / ABCS

Battlefield Digitization was created by the United State's taxpayers dollars and is a key citation that I give credit to the Army and the Marine Corps... all building blocks, processes, people's work the author deems useful for inclusion into an adaptive procedural template checklist useful to form and maintain trade federations.

The US Army / NATO uses networks and router / router subnets to emulate orders and schemes of maneuver. To determine if a squad or platoon is mission capable or where it is supposed to be and equipped with the requisite resources: food, water, fuel, ammo etc,' data is sampled and forwarded using a minimum of network resources -- in other words TIME. The Internet Protocol was examined closely and it was re-discovered that time interval frame assignments were unassigned / available to transport additional state meta data. Heretofore unassigned time intervals set aside for future use were used to carry data about the organization -- it's unit designation or Organizational Identifier Org_ID, it's geo-location and resources URN Uniform Resource Name.



FIGURE 7: Federate, Federations / Distributed Autonomous Organizations DAO

FEDERATION: from Latin: *foedus*, gen.: *foederis*, covenant characterized by a union of partially self-governing states or regions under a central (federal) government. In a federation, the self-governing status of the component states, as well as the division of power between them and the central government, are typically constitutionally entrenched and may not be altered by a unilateral decision of either party, the states or the federal political body. Individuals, organizations retain **AUTONOMY** to act on their own behalf. Reuse of military funded System of Systems research, best practice re-used as a procedural template framework is key to forming and maintaining sustainable Trade Federations as Distributed Autonomous Organizations DAO's / DAC's Corporations.



Figure 8: Beacon Communities as Distributed Autonomous Organizations DAO's

Shown above are a few of the many military net centric operations / blockchain distributed networking both of which use the term DAO Distributed Autonomous Organization. DAO term first used by RAND military think tank in 2001 - now in use by Bitcoin community. Military's do one thing well -- organize individuals into organizations <Org_ID> and Organizational Units <OU><OU><OU>as dispersed autonomous groups working towards collective, synchronized goals following cyclical, iterative procedures.

The Heart Beacon Cycle Time - Space Meter main use case: synchronizing geo-spatial temporal Eco - Econometrics among Trade Federations / DAO Distributed Autonomous Organizations. Members of trade federations agree to use standards, processes, shared components / building blocks and conventions.

The trade federation's adaptive procedural template checklist is agreed upon as items as minimum requirements to join a trade federation (cloud computing term). Entries to the procedural template checklist -- a clipboard of things needed to accomplish a goal (establish a trade federation) refer to detailed treatises.

Project: form trade federations of autonomous communities, states / sovereign nations following a procedural template checklist promoting synchronization among geo-spatially dispersed groups. Federated groups follow a procedural template guiding group activities across time - space to achieve synergy, synchronicity and inter community cooperation where activities are orchestrated from grassroots to capitals, from micro to macro-economic cycles.



Figure 9: Which one world currency do you vote for? IMF SDR / QFS / HBC QRNB?

MF SDR Vs QFS Vegas Vs NIST QRNB @ Boulder CO Q: What's your vote for a one world currency for a one world government:

1. IMF's SDR basket
2. NESERA's QFS Las Vegas
3. Department of Commerce - Treasury - NIST QRNB at Boulder Colorado (Stephen King's The Stand's Free Zone) ? [#IMF #NESERA #NIST](#) Github: <https://github.com/Beacon-Heart>

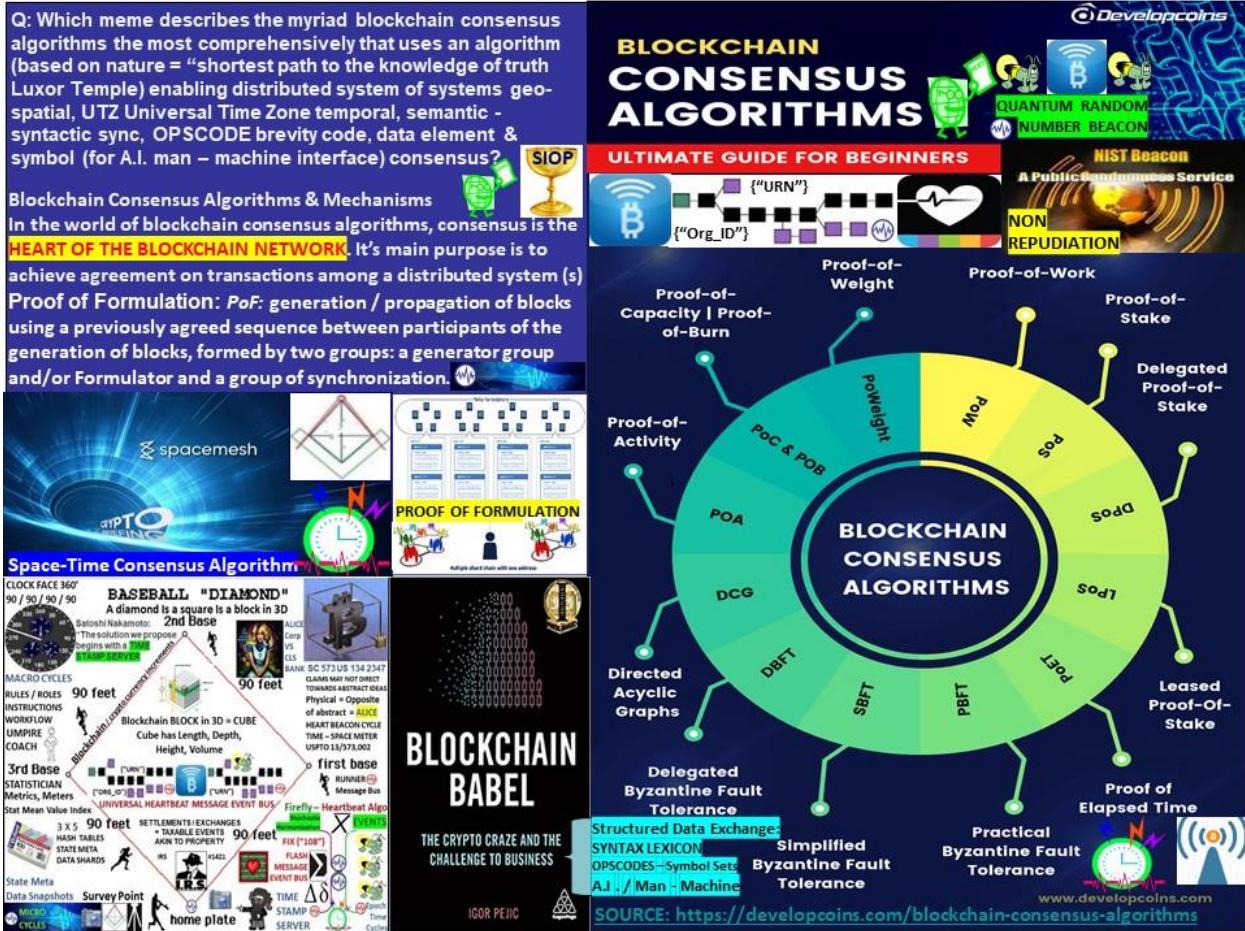


Figure 10: Universal meme to represent a Tower of Bable of memes / metaphors

Given crypto **#blockchain** myriad memes, metaphors "hashgraph" "Ether gas" are creating new data elements syntax lexicons .. DoD / NATO's structured data exchange (mapped to symbol sets for A.I - man - machine interface) took decades to achieve consensus Source: SIMPLE Military Communication Protocol [http://en.wikipedia.org/wiki/SIMPLE_\(military_communications_protocol\)](http://en.wikipedia.org/wiki/SIMPLE_(military_communications_protocol))

SYSTEM OF SYSTEMS ENGINEERING: NATO has invested 30 years of mapping OPSCODE brevity codes to symbology / symbols / symbol sets contained in 300 plus message set / use cases as part of Battlefield digitization, Net Centric Warfare NET Enabled Operations NEO NETOPS. Blockchain, crypto currency developers are recreating, reinventing this decades old, tedious, time intensive, labor intensive, expensive structured data exchange... wheel. It may be stated that this project is a swords to plowshares initiative

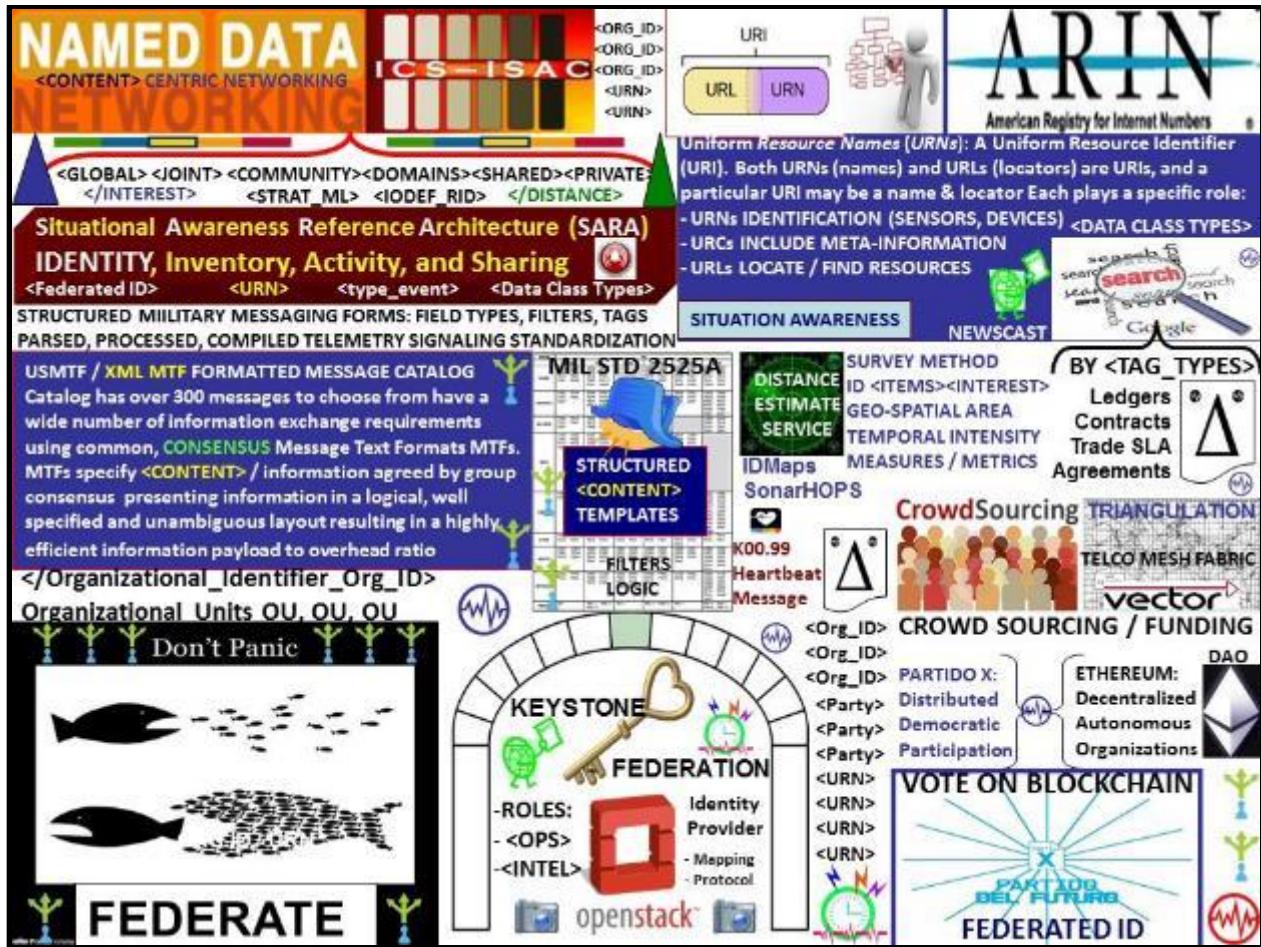


FIGURE 11: FEDERATE AND GRADUATE / FEDERATION SYNTAX LEXICON

Project: form trade federations of autonomous communities, states / sovereign nations following a procedural template checklist promoting synchronization among geo-spatially dispersed groups. Federated groups follow a procedural template guiding group activities across time - space to achieve synergy, synchronicity and inter community cooperation where activities are orchestrated from grassroots to capitals, from micro to macro economic cycles. Distributed Autonomous Organization / Corporations DAO - DAC federated trade organizations. The term DAO Distributed Autonomous Organization was coined by military funded think tank RAND Corporation circa 2001. The German military proposed using battlefield digitization / Net Enable Operations NEO for operations other than war circa 2004. A clear and present opportunity is to form trade federations.

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<p>FEDERATED MISSION NETWORKING NATO FMN SHARE</p>		USMTF / XML MTF FORMATTED MESSAGE CATALOG = 300 + messages info exchange sets using common, CONSENSUS Message Text Formats MTFs. MTFs specify <CONTENT>/ info agreed by group consensus presenting information in a logical, well specified unambiguous layout resulting in a highly efficient info payload to overhead ratio			INFOCON 4 3 2 1 INFORMATION CONDITION																																																																				
<p>MCS</p>		<p>Rosetta Stone Blockchain Standardization M2M Coder's Guide</p>			"SYMBOLS RULE THE WORLD" 																																																																				
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Information Categories and Examples <table border="1"> <thead> <tr> <th>Object Categories</th> <th>Examples</th> <th>Location</th> <th>Movement</th> <th>Identify</th> <th>Status</th> <th>Activity</th> <th>Intent</th> </tr> </thead> <tbody> <tr> <td>OOB</td> <td>SYNTAX LEXICON Machine Trust Language MTL</td> <td>STRUCTURED DATA lat/long</td> <td>EXCHANGE spcl/hdg</td> <td>MESSAGE country / alliance, type/class</td> <td>Sets readiness</td> <td>COA targeting, recontrolling</td> <td>{"Java JS"}</td> </tr> <tr> <td>Infrastructure</td> <td>Comm, power, transportation, water/sewer</td> <td>network, grid</td> <td>throughput, flow rates,</td> <td>name, part-of relationships</td> <td>BDA, op needs</td> <td>repair, transfracts</td> <td>YAML expansion, refine</td> </tr> <tr> <td>Sociological</td> <td>Culture, religion, economic, ethnic, government, history, languages</td> <td>temples, historic structures</td> <td>ER Model</td> <td>Class Diagram</td> <td>Relational Database</td> <td>Object ODBC</td> <td>XML DTD / Schema TADS</td> </tr> <tr> <td>Geophysical</td> <td>Terrain, weather, climatology, oceanography, astrometry</td> <td>feature lat/long, alt/depth</td> <td>Attribute</td> <td>Attribute</td> <td>Field / Column</td> <td>Attribute</td> <td>Child Element or Element Attribute DR, FFIRN / FN / FUD</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Domain Value</td> <td>PURCHASE COOL'S</td> <td>Instance, Value</td> <td></td> <td>FEDERATE</td> </tr> </tbody> </table>								Object Categories	Examples	Location	Movement	Identify	Status	Activity	Intent	OOB	SYNTAX LEXICON Machine Trust Language MTL	STRUCTURED DATA lat/long	EXCHANGE spcl/hdg	MESSAGE country / alliance, type/class	Sets readiness	COA targeting, recontrolling	{"Java JS"}	Infrastructure	Comm, power, transportation, water/sewer	network, grid	throughput, flow rates,	name, part-of relationships	BDA, op needs	repair, transfracts	YAML expansion, refine	Sociological	Culture, religion, economic, ethnic, government, history, languages	temples, historic structures	ER Model	Class Diagram	Relational Database	Object ODBC	XML DTD / Schema TADS	Geophysical	Terrain, weather, climatology, oceanography, astrometry	feature lat/long, alt/depth	Attribute	Attribute	Field / Column	Attribute	Child Element or Element Attribute DR, FFIRN / FN / FUD				Domain Value	PURCHASE COOL'S	Instance, Value		FEDERATE																		
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FIGURE 12 Syntax Lexicon Library 300 + Message Template NATO Use Cases

Syntax is represented by template spreadsheet form fields "FFIRN's", "FFUDNS" in structured military messaging where the form number and field position has significance and reduces data type ambiguity in message set parsing, processing.

Our proposal is to reuse the logic behind structured military messaging form field identifiers in commercial use cases. A method to convert syntax conventions among the myriad metaphors and memes -- a Rosetta Stone syntax lexicon library is needed.

The Heart Beacon Cycle involves a heartbeat flash message universal event, alert message bus. It is based on NATO's best practice, 300 + structured data exchange templates, micro-macro (economic) situational awareness sync delta data exchange schedule. The Heart Beacon cycle includes a universal metrics measurements physical meme (see Supreme Court Alice Corp Vs CLS Bank) for use among myriad Bitcoin Blockchain internet of money Block-Time arbitrage memes to support standardization of a one world (economic) system of systems.

Cyclic updates of state meta data snapshots / heartbeat messages from micro-to macro (economic) cycles distributed among a system of systems is simply powerful. The military adopted the policy of only sending changes or "heartbeat sync deltas" in the mid 90's.



FIGURE 13: NATO STRUCTURED DATA EXCHANGE MESSAGE TEMPLATES

NATO's best practice, 300 + structured data exchange templates, micro-macro situational awareness sync delta data exchange schedule. Sending changes, not the entire document or the "sync delta's" in military parlance conserves bandwidth and increases throughput. The military relies on "heartbeat" messages as do stock exchanges -- i.e., FIX ("108") heartbeat messages, First response, time sync systems etc, etc. The Internet is based on time cycles and(computer) syntax parsed / processed or not during finite time cycles. It requires a syntax library lexicon -- a Rosetta Stone. NATO's [#interoperability](#) system of systems framework i.e., sync delta's, structured data exchange alpha numeric brevity codes, symbol sets... is the best starting point. [#Coindesk](#): The Opportunity for Interoperable Chains of Chains



FIGURE 14: Firefly - Heart Beacon Algorithm by University Bologna / Hungary

"The shortest path to the knowledge of truth is through nature" Luxor Temple Inscription:

FIREFLY INSPIRED HEARTBEAT SYNCHRONIZATION:

- 1) Consensus 2) Neural Network emulation
- 3) Event Bus for Bitcoin transactions as taxable events
- 4) Stochastic Harmonization 4) stock exchange events for MMID Dark pool limits

Paper: Firefly-inspired Heartbeat Synchronization in Overlay Networks by the University of Bologna and Trento Italy along with the University of Szeged, Hungary: "Heartbeat synchronization strives to have nodes in a distributed system generate periodic, local "heartbeat" events approximately at the same time. Many useful distributed protocols rely on the existence of such heartbeats for driving their cycle- based execution. The heartbeat synchronization protocol for overlay networks is inspired by mathematical

models of flash synchronization in certain species of fire flies. Nodes send flash messages to their neighbors when a local heartbeat triggers. Fireflies adjust the phase of their next heartbeat based on incoming flash messages using an algorithm inspired by mathematical models of fire-fly synchronization. Heartbeat synchronization strives to have nodes in a distributed system generate periodic, local "heartbeat" events approximately at the same time. It differs from classical clock synchronization in that nodes are not interested in counting cycles and agreeing on a ID of a current cycle. There is no requirement regarding the length of a cycle with respect to real time as long as a length is bounded and all nodes agree on it eventually. The goal is to guarantee that all nodes start and end their cycles at the same time, with an error that is at least one, but preferably more, orders of magnitude smaller than a chosen cycle length. "What we are interested in guaranteeing is that all nodes start and end their cycles at the same time, with an error that is at least one, but preferably more, orders of magnitude smaller than a chosen cycle length.



FIG 15: TERRA Trade Reference Currency / Crypto Micropayments – Demurrage fees

Satoshi Nakamoto: "#Bitcoin is intended to be paired with the market place" "the blockchain stores references to market indexes"

Demurrage: term used in currency trading to denote cost of currency ownership and/or storage. cost of carrying money... considered superior to interest payments, as it stimulates currency circulation and economic growth. "In a physical sense, demurrage represents a delay that occurs during the transportation of goods via truck. When this happens, the trucking firm delivering the product can opt to pay a flat fee to the receiver to cover any loss incurred as a result of the delay. This fee can be assessed on an hourly basis. Or in the case of gold, demurrage is simply the costs associated with storage of bouillon.

[LINK https://investopedia.com/terms/d/demurrage.asp](https://investopedia.com/terms/d/demurrage.asp)

Thomas Edison's Monetary Option:

[LINK: https://supermoney.com/2014/06/thomas-edisons-view-money/](https://supermoney.com/2014/06/thomas-edisons-view-money/)



FIGURE 16: ECONOMIST MILTON FRIEDMAN's K % RULE / Algorithmic Economic Regulation

Economist Milton Friedman predicted the rise of a computer capable of automatically adjusting the inflation rate of money, and this is precisely what we see in the case of bitcoin, as a regulatory algorithm intelligently adjusts the mining difficulty to make the issuance of blocks more or less easy depending on the demand for network hashing power. No money system we have seen to date can claim it is chronologically regulated. The universal construct of time is the backbone of the cryptocurrency digital economy. Investopedia K % Rule [Source](https://investopedia.com/terms/k/k-percent-rule.asp): <https://investopedia.com/terms/k/k-percent-rule.asp>

Satoshi Nakamoto's Bitcoin key building block is a time stamp server. Satoshi Nakamoto: "Bitcoin is intended to be paired with the market place" "the blockchain stores references to market indexes" Globalization involves multi-national corporate entities vying for control of regional resources. It follows that a proven strategy to identify, track, and monitor resources regionally within the global economic matrix is needed. Bitcoin cryptocurrencies as programmable money and the internet's heartbeat, heartbeat messages timed to harvest data during micro economic cycles then aggregated into a composite economic heartbeat pulse as Economist Milton Friedman's K% rule is a clear and present opportunity for trade equity



FIGURE 17: FEDCOIN / WORLDCOIN = ECONOMIC HEARTBEAT

A one world currency for the one world government will require financial events stochastic-ally synchronized, harmonized across the world's time zones and will need to represent a value index of the world's GDP

Main building blocks: WAVES: TOKENIZES NATIONAL CURRENCIES

- Firefly Heartbeat algorithm Time – Space Sync algorithm improved by matching firefly async / sync process to closest Operational Tempo OPTEMPO heartbeat time epoch cycle
- TERRA TRC TRADE REFERENCE CURRENCY Commodity (crops etc.,)
- ECONOMIST MILTON FRIEDMAN'S K% RULE Lead Economic Indicator pulse

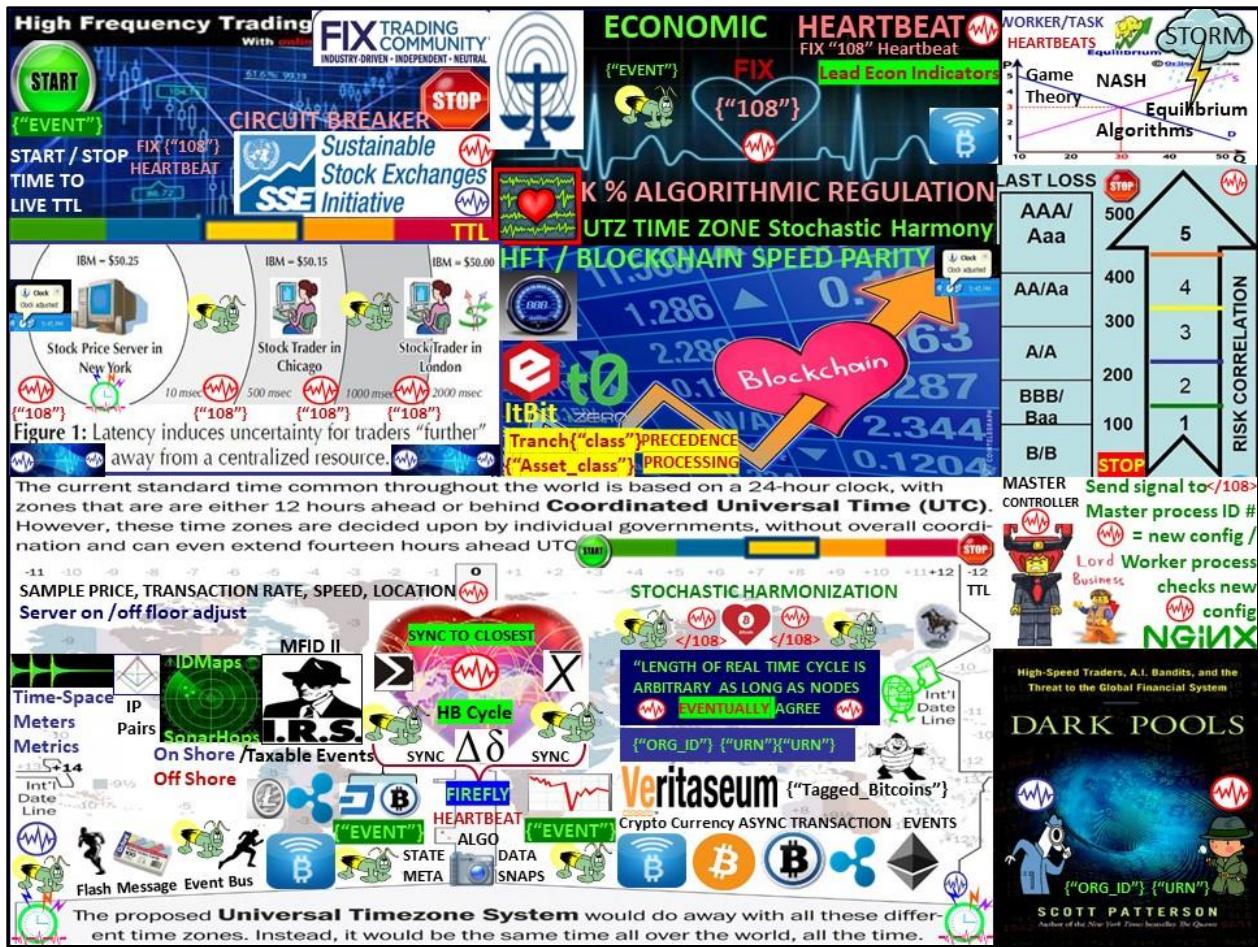


FIGURE 18: HFT CIRCUIT BREAKER / Blockchain transaction speed algorithmic regulation

Algorithmic regulation, speed parity between mainframe supercomputers and blockchain trade

MFID II DARKPOOL HFT High Frequency Trade Limits: Sustainable Stock Exchange Initiative

I.R.S. Internal Revenue Service 2018 Tax Code change: Bitcoin A, B, C to N type exchanges = taxable events

Use the "Great John Nash's" Equilibrium algorithms to address trade parity among "whales"

Firefly inspired heartbeat synchronization algorithm use cases in stock, currency, commodity exchanges: algorithmic regulation. Improving temporal trade parity between Bitcoin Blockchain & conventional stock exchanges by using the firefly-heartbeat algorithm to take trade speed samples among trade populations across time zones to determine an optimal trade speed / frequency as a statistical mean value index pulse. On off trade floor parity = sonar water drop in pond meme radius distance / Dark Pool circuit breaker #UTZ universal time zone stochastic harmonization See USPTO 13/573,002, US Sct #573 Alice Corp Vs CLS Bank "claims may not direct towards abstract ideas" = physical sonar water drop in pond meme for radius distance from stock, commodity exchange trade floors #Bitcoin World Economic Heartbeat

Use Case: algorithmic regulation. For example, improving temporal trade parity between Bitcoin Blockchain & conventional stock exchanges by using the firefly-heartbeat algorithm to take trade speed samples among trade populations across time zones to determine an optimal trade speed / frequency as a statistical mean.

Trading velocity far exceeds Bitcoin's current transaction rates estimated to be between 3 - 7 transactions per second and far exceed non-HFT trading capacity. A method is needed to establish temporal trade parity and account for on floor / off floor trading disparity -- enter STAAS Space - Time As A Service TAAS using a novel stochastic harmonization algorithm based on the mating behavior of certain species of fireflies that strive to sync during mating activity. The fireflies attempt to arrive at a uniform flash rate (consensus) is matched to the closest heartbeat cycle.

All sophisticated algorithms, bots, mots, scripts, agents make use of the heartbeat -- opportunities, intervals, windows in time. High frequency flash trade algorithms are sophisticated and distributed -- however, all algorithms report to a single master controller. The heartbeat = start bit / stop bit, Time To Live = algorithm on / algorithm off / algorithm duration. Heartbeat </108> messages and the heartbeat time cycle can be used to limit trade sessions by trading session or trade time cycle e.g., one trade per cycle and / or n trades per session.

Math genius John Nash of Princeton's equilibrium theorem may be used for stock, currency market equilibrium through use of algorithms to control cartel behavior through sanctions and penalties. The increasing reliance on game theory as a foundation for auctions and electronic commerce, efficient algorithms for computing equilibria in multiplayer general-sum games are of practical interest for example, in finding a Nash equilibrium for an average-payoff repeated bi-matrix game polynomial-time algorithm. Finite-state equilibrium strategies can be found efficiently and expressed succinctly.

Paper: A Polynomial-time Nash Equilibrium Algorithm for Repeated Games: [LINK](#)

<http://bit.ly/1NWeLLu>

STORM / TRIDENT applies real time distributed computation of events at speeds of a million tuples per node per second using worker / task heartbeats to get put instructions for example, to Wall Street high frequency flash trade describing trade window Time To Live TTL and start, stop commands e.g., stop commands to runaway stock algorithms.

A use case of the firefly inspired heartbeat synchronization algorithm in stock and currency exchanges is algorithmic regulation. For example, improving temporal trade parity between Bitcoin Blockchain & conventional stock exchanges by using the firefly-heartbeat algorithm to take trade speed samples among trade populations across time zones to determine an optimal trade speed / frequency as a statistical mean. Trading velocity far exceeds Bitcoin's current transaction rates estimated to be between 3 - 7 transactions per second and far exceed non-HFT trading capacity. A method is needed to establish temporal trade parity and on floor / off floor



FIGURE 19: ENERGY TOKEN ECONOMY METRICS – METERS

Heartbeat Messages used in power, internet systems: shows energy grid protocols that use a heartbeat, heartbeat messages. IEC C37.118 Harmonization and Synchronization is used across smart grid applications and specifies a heartbeat update interval in milliseconds -- depending on the time sync source. Micro-grid use is set to increase dramatically in both military and commercial applications.

The ability to accurately, reliably and consistently meter changes in power consumption between a community specializing in micro-grid energy production and a community specializing in a ecology module purifying water or producing bio-mass can monitor usage in terms of surpluses or shortages based on the last sync delta update across a consortium as a basis for exchange based on group concurrence such as Service Level Agreements SLA performance measures.

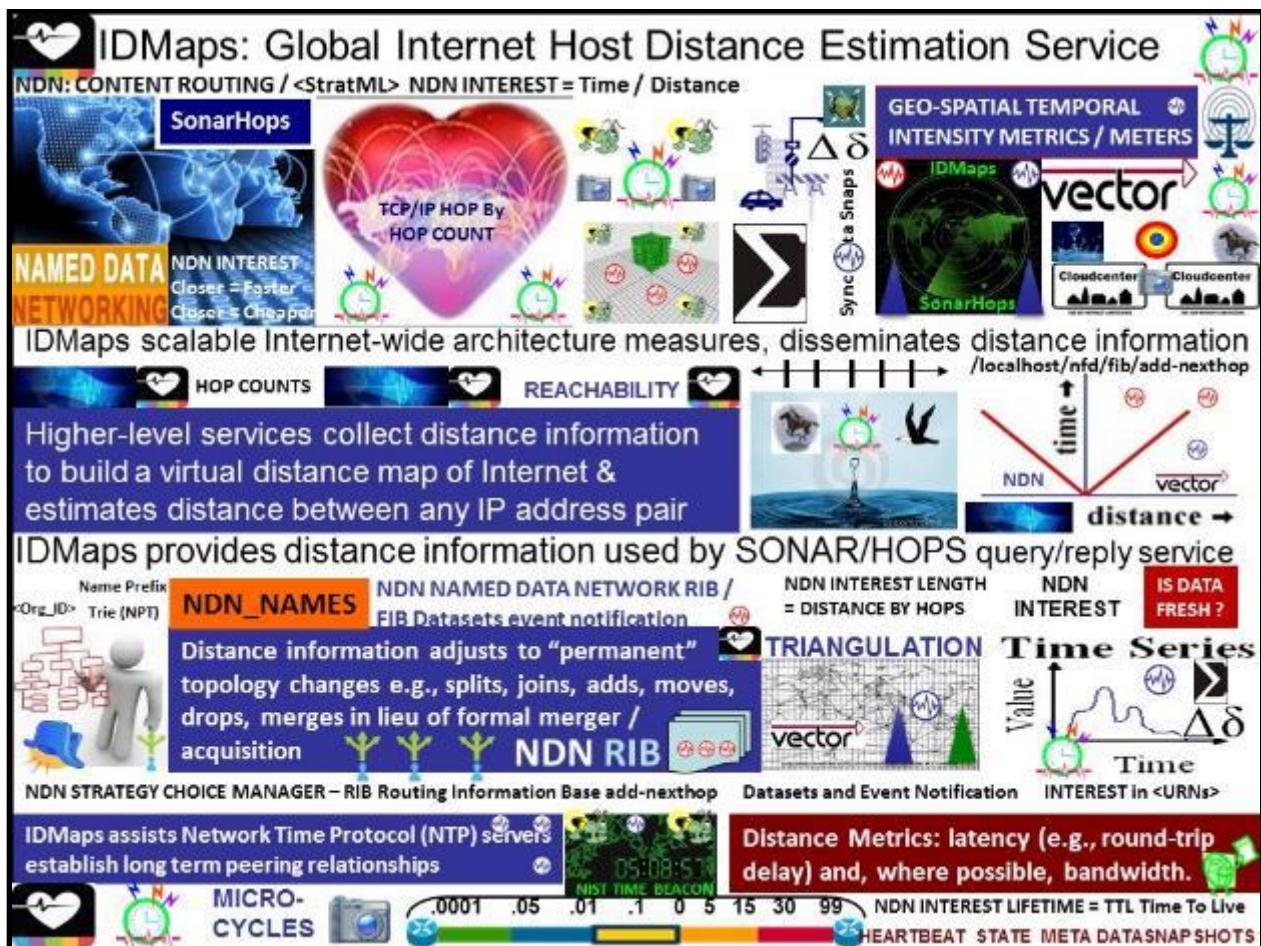


FIGURE 20: IDMaps – SonarHops Distance Estimation Service

GOAL: #Cloud, #IoT, #Blockchain Service Level Agreements SLA incentivized Eco friendly transactions leveraging bitcoin's micro payment function supporting the TERRA Trade Reference Currency TRC by economist Lietaer For example, closer = cheaper, closer = less fuel ? Globalization involves multi-national corporate entities vying for control of regional resources. It follows that a proven strategy to identify, track, and monitor resources regionally within the global economic matrix is needed. The Heart Beacon Cycle Time - Space meter describes universal geo-spatial econometrics and meters and includes distance location services such as IDMaps - SonarHops. Geo-spatial temporal techniques like IDMaps /SonarHops and the firefly heartbeat stochastic harmonization method can be used to account for trades distributed across time zones and trading on the stock exchange floor and off where the length of the fiber optic cable is significant in High Frequency Trade volume.

Globalization involves multi-national corporate entities vying for control of regional resources. A proven strategy to identify, track, and monitor resources regionally within the global economic matrix is needed. The Heart Beacon Cycle: a procedural template

listing tools, syntax, processes useful in forming, maintaining a system of services providing consistent scheduling of micro-services reporting to macro-cycle updates to decision support overlays and scheduling signaling, telemetry exchanges among a collective, distributed system of (economic) systems.



FIGURE 21: SIGNALS AND TELEMETRY ANNEX FOR OUR SPACESHIP EARTH

Ecologically sound econometrics: The Heart Beacon Cycle Time – Space Meter is a Signals, Telemetry annex for Buckminster Fuller's Operations Manual for Spaceship Earth. Our proposal is based on a proven system of systems building blocks and best practice framework leveraging a signaling, telemetry heartbeat flash message universal event, alert message bus.

Richard Buckminster Fuller "Build a new model that makes the old model obsolete" Buckminster Fuller 1968 Operating Manual for Spaceship [Earth](#) "we can make all of humanity successful through science's world-engulfing industrial evolution. We have the tools"



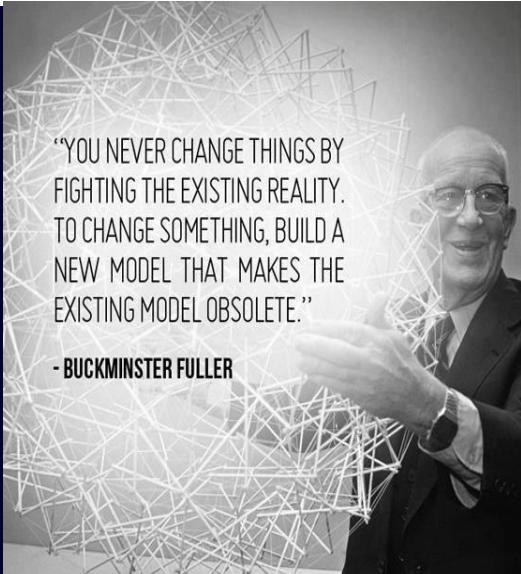
"It is now highly feasible to take care of everybody on Earth at a higher standard of living than any have ever known. It no longer has to be you or me. Selfishness is unnecessary. War is obsolete. It is a matter of converting the high technology from weaponry to livingry."

R. Buckminster Fuller (1895 – 1983)

FB/Truths2SetUsFree

"YOU NEVER CHANGE THINGS BY FIGHTING THE EXISTING REALITY. TO CHANGE SOMETHING, BUILD A NEW MODEL THAT MAKES THE EXISTING MODEL OBSOLETE."

- BUCKMINSTER FULLER



RBF "the secret to change is build a new model that makes the old model obsolete" RBF "Earth is a spaceship that cannot be resupplied". WHAT IF EVERYDAY IS SPACESHIP EARTH DAY ? What if we formed economic trade federations incentivizing environment friendly business practices leveraging Bitcoin's micro-payment capabilities supporting the TERRA Trade Reference Currency TRC demurrage resource handling charges?



FIGURE 22: SWORDS TO PLOWSHARES

We propose novel use of a heartbeat synchronization algorithm based on nature (fireflies) to establish consistent, equitable metrics, to compensate tokenized commodities demurrage parking fees. We propose ecologically responsible trade incentives i.e., closer = cheaper, less fuel.

IF climate change causes a drop in crop commodity by 20–25 % while population grows, **THEN** this condition will become a matter of national security. **THEN** this will require revisiting Belgian Economist Bernard Lietaer's TRC Trade Reference Currency **ELSE** face > chaos

All things internet are formed by code formed by time cycles used / not used to process, parse {"syntax"}. Therefore, time cycles, Rosetta Stone syntax lexicon library are the two main building blocks to reshape our world and the building blocks for Governance 2.0.



FIGURE 23: BIG DATA

Ecological sustainable incentives can be coded into the programmable economy in terms of incentives in context with: preparation / processing and costs associated with distance to transport -- e.g., closer = cheaper, faster. Big Data is key to establishing a consistent <tag> context library / lexicon and time stamping data by organization <Org_ID> and by data class type and by resource type -- prior to fusion. This is key to improved Ecologically responsible Econometrics (closer = cheaper, faster, less fuel), network forensics and data analytics – to achieve the "Grail" -- a shared view of time stamped, filtering content on decision overlays showing the four characteristics of Big Data: VOLUME, VELOCITY, VARIETY, VERACITY.

Ecologically responsible economics —either we demonstrate responsibility towards the planet we live on or we don't—it's that simple. The Heart Beacon Cycle is a sword to plowshare re-use of tax subsidized research into optimal use of individuals joining groups synchronized in time-space to accomplish common goals e.g., optimal geo-spatial, temporal econometrics, vectors to reduce for example, CO₂ carbon footprint due to inefficient transport, resource vectors through a novel, improved use of an algorithm based on nature and NATO best operational practice, and Incentives for ecologically sound economics.

Earth Day every day on the Bitcoin Blockchain leveraging Bitcoin / Ethereum's micro-payments to subsidize TERRA TRC Trade Reference Currency demurrage fees. If a one world anything is going to happen any time soon, NATO will provide the template system of systems. Earth Day Every Day on the Bitcoin Blockchain. Use Bitcoin, Ethereum etc. based apps micro-payments in concert with TERRA TRC Trade Reference Currency & add Pentagon system of systems best practice then shake, system integrate well.

The Heart Beacon Cycle Time – Space Meter and Applique Overlay is a Signaling and Coordinating Instructions Annex for Buckminster Fuller's Operating Manual for Spaceship Earth. Adaptive use case: geo-spatial, temporal econometrics, vectors to reduce CO₂ carbon footprint due to inefficient transport, resource, logistic vectors. Bitcoin, Ethereum and other token based blockchain strategies are ideal to remunerate, compensate logistic demurrage parking, commodity handling fees supporting the 1991 Belgian Economist Bernard Lieitaer's TERRA TRC Trade Reference Currency proposal that was partially articulated by Thomas Edison and Henry Ford in 1921 and by economists in the minority during the late 1800's. Edison felt that crops held their value best over time.

Given energy is everywhere as Tesla and Einstein are thought to have believed or stated in so many words, and given our climate change challenges, it's time to move to an energy token based economy where tokens are traded for other commodities. For example, a region that excels in food production could federate to trade its excess or surplus production with another region with excess production in another area. As micro-cycle sync delta reports are aggregated by processing them at regional, off site collection gateways, unused resources in macro-economic strategic stores can be matched with unmet need at the regional, local, micro-economic level cross levelling resources improving regional sharing where closer is cheaper and closer uses less fuel thus reducing Earth's carbon footprint and carbon credits generated.



FIGURE 24: BLOCKTIME ARBITRAGE -- Blueprint for a New Economy Melanie Swan

'Blockchain: Blueprint for a New Economy', is a book that considers theoretical, philosophical, and societal impact of digital currencies and blockchain technologies. It takes one beyond the currency and smart contracts to show how the blockchain is in position to become the fifth ground breaking computing paradigm after mainframes, PCs, the Internet, and mobile/social networking. The blockchain has the potential of being a worldwide, decentralized record for the registration, inventory, and transfer of all assets: finances, property, intangible assets such as votes, software, health data, and ideas. The book comprises such topics as creating cheaper, more efficient services traditionally provided by nations, making better use of the data-mining network. Blockchain technologies could be used to monitor public health, crowdfund projects, provide community supercomputing, and even birth artificial intelligences. Network Economies: Economic System as a Configurable Parameter One way to implement the direct model is through micropayments, where users click on icons to allocate pre-specified amounts of Bitcoin or token to take community actions. The central issue in decentralized p2p

content systems to be prototyped and tested is user willingness to micro-pay for content operations. Economic System as a Configurable Parameter LINK <https://lnkd.in/bFMwAyp>

Scientists marching is awesome. So is sustained, systemic action instead of protesting whoever is selected to read teleprompters. In addition to protesting the lack of ecological protective actions, we can focus on forming local and regional equitable, sustainable trade federations where closer is cheaper (geo-spatial econometrics) re-using NATO procedures derived from in use host nation agreements for food, water, energy...



FIGURE 25: MEDIATION GATEWAY: Federations sustainable economics / Off Pagers

MEDIATION GATEWAYS are needed among entities, organizations, trade federations adhering to rules, laws, consensus metrics, meters and non-conforming entities, organizations, corporations

Building a “new” internet will involve building 2 nets: one net is being built that tends to be centralized and is a private mesh among large government and / or large corporations featuring controlled access permission for example, Ripple that becomes more decentralized the more hubs installed.

The second net is a more decentralized, shared internet, internet of money based on the concept of Distributed Autonomous Organization DAO infrastructure keeping in mind that the DAO term was coined by a military funded think tank — the RAND corporation circa 2001.

Mediation gateways between centralized and decentralized blockchain implementations are needed to match transaction speeds between the centralized architectures that tend to be faster than the decentralized architectures. Work flow logic, business rules, metrics, meters will differ among the centralized, decentralized systems as well as among the myriad blockchain memes in general.

#Economic #RESET is a mathematical certainty. Do we **#RESET** the global system of systems as is or will we re-engineer using NATO / DARPA / DOD's system of systems engineering framework standing on the shoulders of giants to convert swords to plowshares? **#blockchain #econometrics**



Figure 26: Build a new model

Eco Economic Epochs / Heart Beacon Cycle Time—Space Metrics and Meters for the programmable economy. Digital Nations need an (Eco sustainable) Economic Heartbeat 😊

Ecologically sustainable Economic Heartbeat = system of systems engineering signaling, telemetry support framework for the DAAE Distributed Autonomous Automated Economy

The Heart Beacon Cycle Time - Space meter is a distributed system of systems engineering signaling - telemetry temporal, geo-spatial, semantic - syntactic sync & consensus foundation framework supporting the DAAE Distributed Autonomous Economy Eco - Economic Heartbeat. It is time to establish an ecologically sustainable economic heartbeat... PROJECT BEACON: Reuse NATO's system of systems syntax lexicon OPSCODE brevity code structured data exchange, heartbeat micro to macro cycle Universal Time Zone UTZ sync to support the EIN Earth Intelligence Network neural net emulation & improve temporal, geo-spatial, and syntactic - semantic consistency, interoperability among myriad programmable money memes and metaphors.

The Heart Beacon Cycle is an adaptive procedural template checklist of things, processes, tools, building blocks useful to form, maintain Eco-responsible trade federations. Each item in the procedural template

checklist links to a detailed treatise. We can synchronize ourselves, our cities, towns, cyber-communities in time — space for a common purpose: shared, common, ecologically sound, responsible econometrics.

The Heart Beacon Cycle Time - Space meter is a swords to plowshares DAO Distributed Autonomous Organization project using NATO's Situational Awareness system of systems engineering framework, processes, procedures and internet building blocks to establish an Ecologically sustainable Economic Heartbeat, neural network emulation for the EIN Earth Intelligence Network and heartbeat sync pulse for a Universal Time Zone UTZ supporting a one world currency. It's syntax lexicon library of OPS CODE brevity codes used in programmable money, the programmable economy is descriptive of all things internet, internet of money down to the quantum computing, quantum blockchain level.

Crypto economics needs a universal syntax lexicon digital base Artificial Intelligence A.I., quantum blockchain heartbeat beacon to synchronize, sample tokenized commodities across a stochastically harmonized UTZ Universal Time Zone supporting an Earth Intelligence Network EIN see Robert David Steele's #UNRIG proposal @ <http://robertdavidsteele.com>

Economic #RESET is a mathematical certainty. Do we RESET the global system of systems as is or will we re-engineer using NATO system of systems engineering framework standing on the shoulders of giants to convert swords to plowshares?

Eco Economic Heartbeat: It's TIME: IF Climate Change causes a drop in crop commodity food production by 20–25 % while population continues to grow, THEN it follows that this condition will become a matter of national security. It's TIME to implement an Ecologically Sustainable Economic Heartbeat ELSE face > greater chaos by not leveraging proven system of system structured data exchange tactics.

IF climate change causes a drop in crop commodity by 20–25 % while population grows, THEN this condition will become a matter of national security. THEN this will require revisiting Belgian Economist Bernard Lietaer's TRC Trade Reference Currency ELSE face chaos LINK <http://lietaer.com/2010/01/terra/>

If, when climate change reduces crop commodity production while population continues to rise, it follows that this could become a National Security issue — then, an ecologically sustainable economic heartbeat would be obviously needed. Why wait until crisis, DEFCON 2 stage?

Ecologically sustainable economic transactions need to be incentivized among the world's Ecological and Economic system of systems. The world's systems need to be time-space synchronized, stochastically harmonized across the UTZ Universal Time Zone via heartbeat messages composed with OPS CODE brevity codes drawn from a universal structured data exchange syntax lexicon with over 300 templates.

All things #internet, net of #money #blockchain #cryptocurrencies rely on unicast, multicast — like DoD / NATO's #DAO Distributed Autonomous Organization system of systems — a term coined by the RAND Corporation circa 2000. Programmable money's improvements are in cryptography

Nobel Prize winning Economist Milton Friedman's K% rule is what I call an "economic heartbeat" K-Percent Rule. DEFINITION of 'K-Percent Rule'. The K-Percent Rule was a proposal by economist Milton Friedman that the central bank should increase the money supply by a constant percentage every year. The K-Percent Rule proposes to set the money supply growth at a rate equal to the growth of real GDP each year. K-Percent Rule — Investopedia <http://www.investopedia.com/terms/k/k-percent-rule.asp>



Figure 27: Quantum Random Number Beacon QRNB

Quantum Computing: **Quantum computing** is the use of quantum-mechanical phenomena such as superposition and entanglement to perform computation. **Quantum** computers are believed to be able to solve certain computational problems, such as integer factorization. In a **quantum** Turing machine, the difference is that the tape exists in a quantum state, as does the read-write head. This means that the symbols on the tape can be either 0 or 1 or a **superposition** of 0 and 1; in other words the symbols are both 0 and 1 (and all points in between) at the same time. While a normal Turing machine can only perform one calculation at a time, a quantum Turing machine can perform many calculations at once.

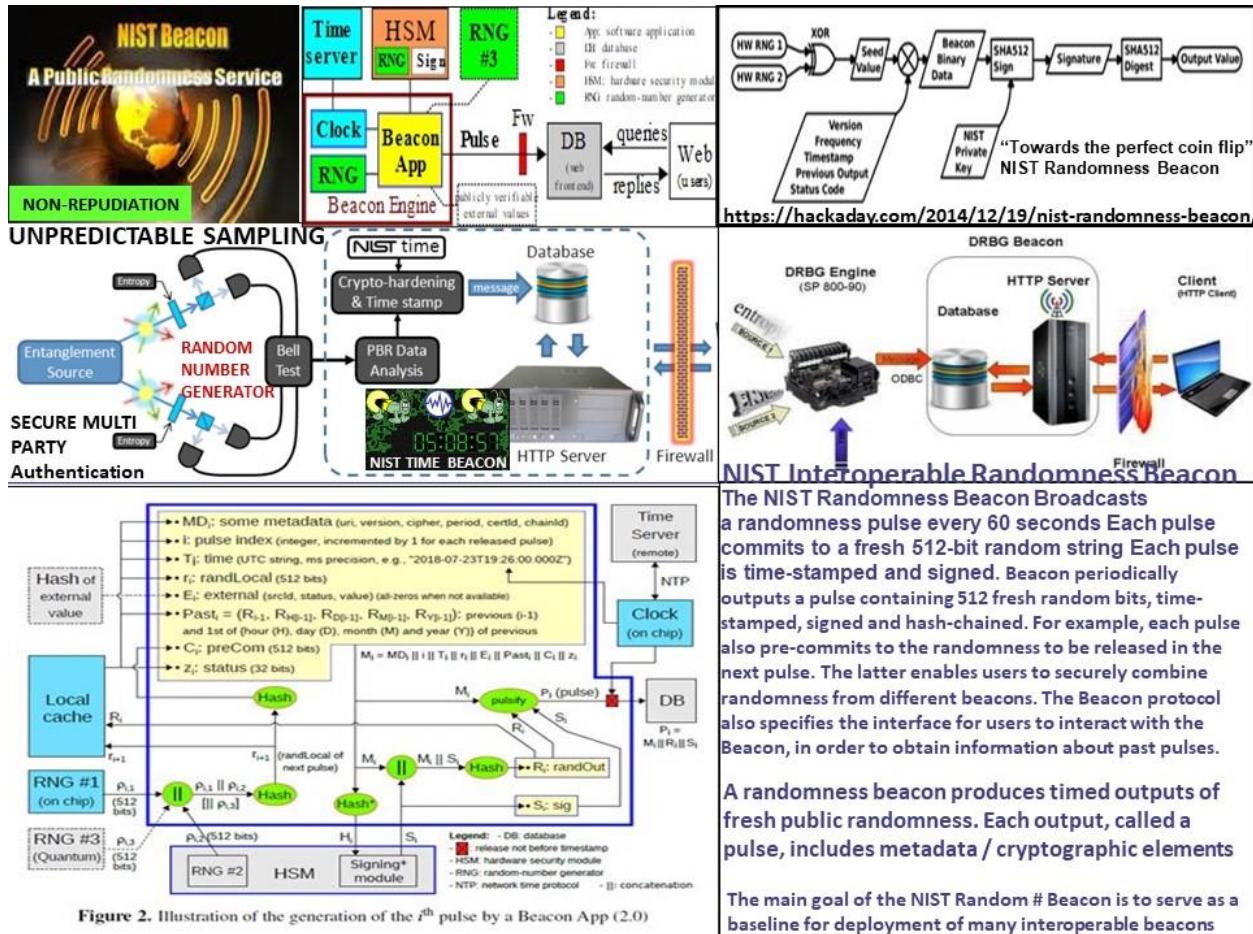


FIGURE 28 Quantum Random Number Beacon

Quantum Random Number Generator: The NIST method generates digital bits (1s and 0s) with photons, or particles of light, using data generated in an improved version of a landmark [2015 NIST physics experiment](#). That experiment showed conclusively that what Einstein derided as "[spooky action at a distance](#)" is real. Researchers process the spooky output to certify and quantify the [randomness](#) available in the data and generate a string of more random bits. [LINK](#)

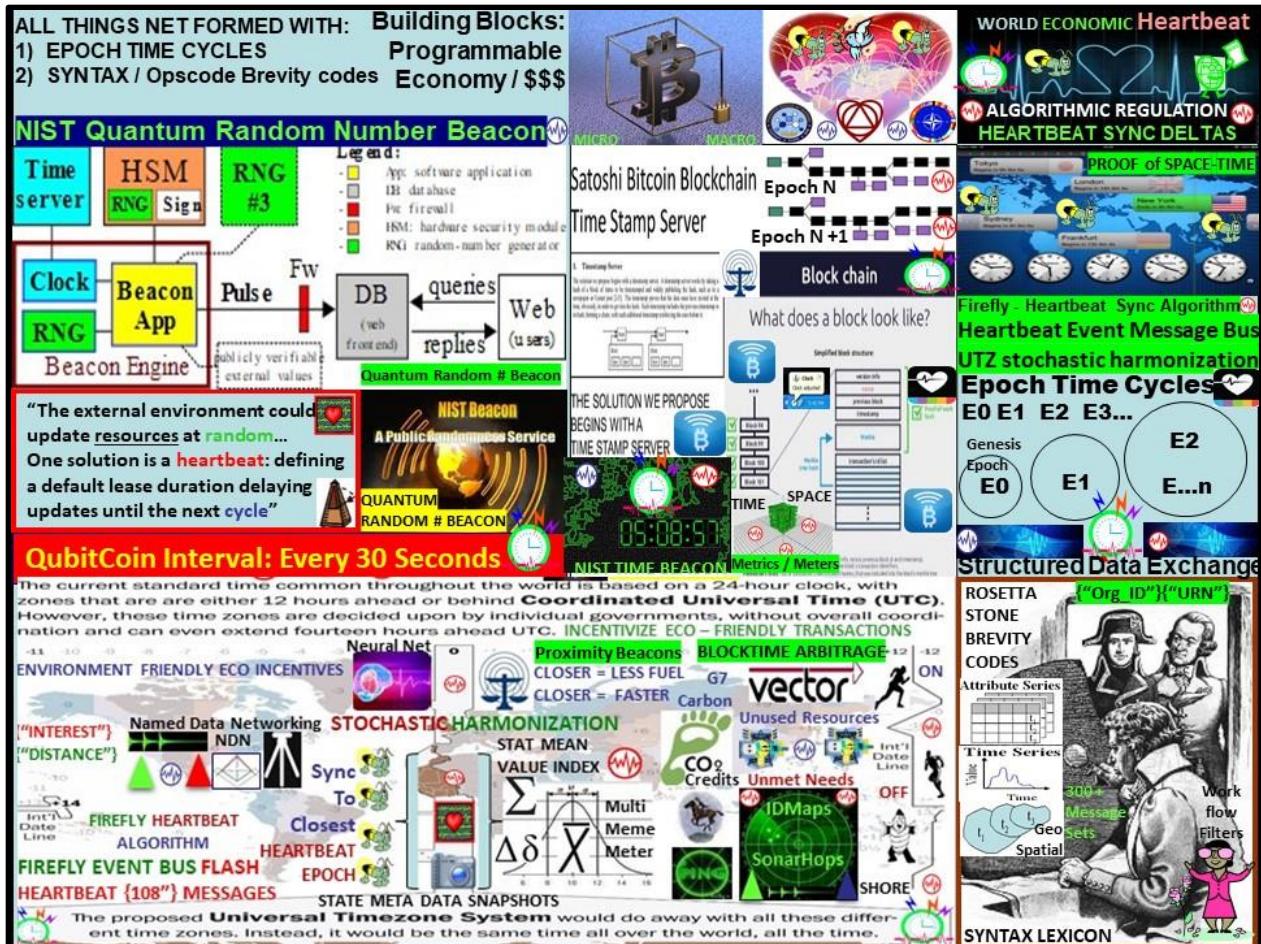


FIGURE 29: All things internet are formed using 1) Epoch Time Cycles 2) Syntax as instructions

Time filtered and spatially metered reports are comprised of state meta-data snapshot / heartbeat message / sync delta messages where state meta data is harvested during micro-cycles then posted / displayed during longer macro-cycles

IEEE 802.11AG is used for hop by hop detection and control for epoch assignment and hop

counts management and for hop by hop detection function to determine hop by hop count

corresponding to machine readable and executable null / 0 and steps from null representing hop

counts e.g., +1, +2, +3, +4 and / or -1, -2, -3, -4 Paul Revere linear, sequential metaphor

indicating distance traveled in context with router / server / switch / node traversal

IEEE 802.11 HbH hop by hop control supporting Paul Revere, rain drop in pond metaphor

metrics of increases / decreases in thresholds and by intensity, duration and hop count sums

See the Law of Time organization's site and the 441 Time Cube described by the late Dr. Jose Arguelles
LAW OF TIME site <http://lawoftime.org>

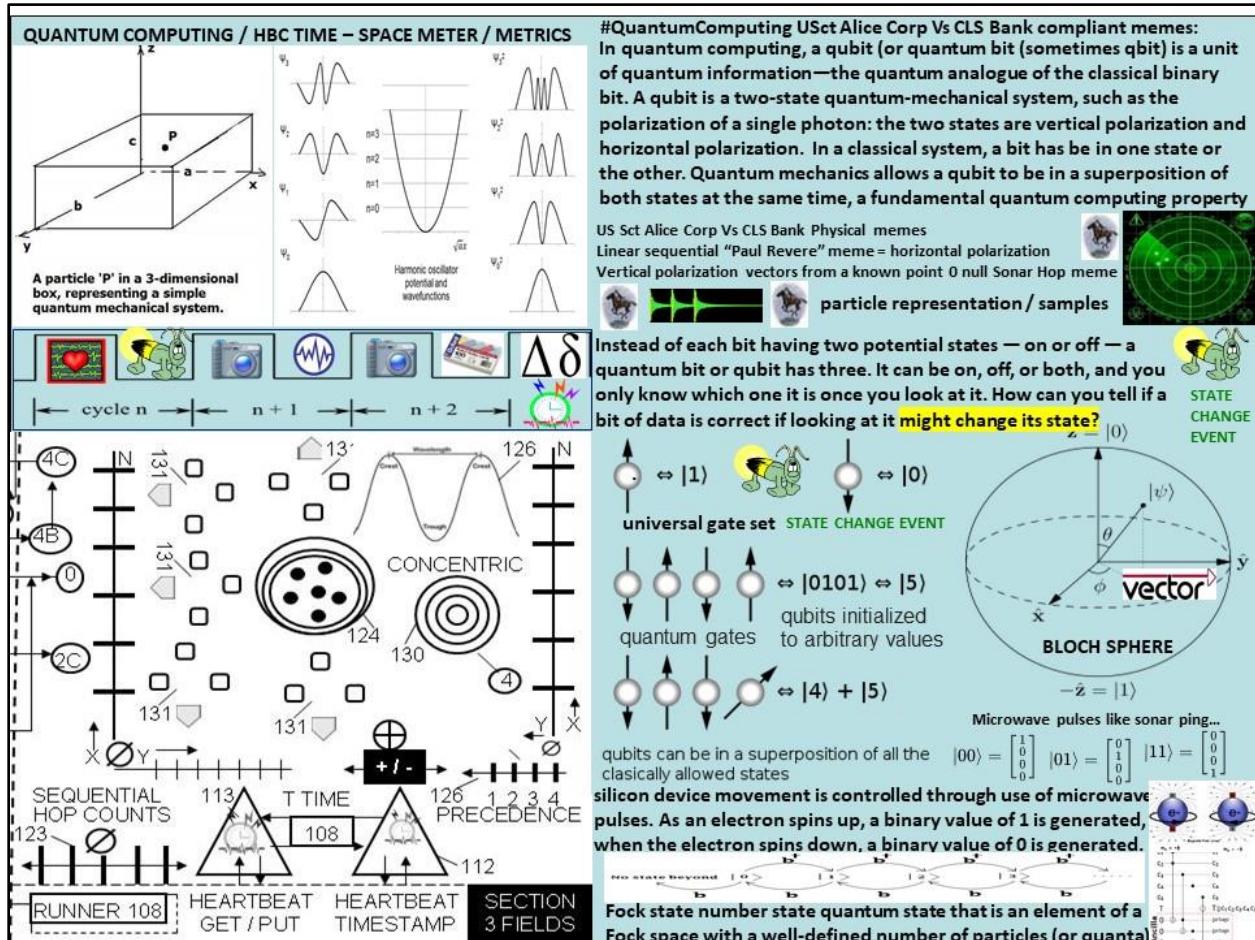


FIGURE 30: Quantum Computing / Heart Beacon Cycle Time – Space Meter USPTO 13/573,002

QUANTUM COMPUTING: the use of quantum-mechanical phenomena such as superposition and entanglement to perform computation. Quantum computers are believed to be able to solve certain computational problems, such as integer factorization. In a quantum Turing machine, the difference is that the tape exists in a quantum state, as does the read-write head. This means that the symbols on the tape can be either 0 or 1 or a superposition of 0 and 1; in other words the symbols are both 0 and 1 (and all points in between) at the same time. While a normal Turing machine can only perform one calculation at a time, a quantum Turing machine can perform many calculations at once. The programmable economy will be anchored by quantum computing -for example, NIST's Quantum Random Number Beacon



Figure 32: Financial Nostradamus / FutureMan fusion

Veritaseum is a blockchain-based fintech software company which delivers global access to peer-to-peer capital markets through its decentralized platform, digital asset research, and transfers. At heart, the project seeks to level the economic playing field by creating software which enables participation in P2P capital markets without intermediates like banks, brokers, financial advisors, and other mediators. The use case of VERI token is to redeem with Veritaseum software for advisory services, research and to gain entry into Veritaseum's autonomous financial machines, P2P value trading system, and P2P letters of credit. The platforms utility token VERI is used to purchase access to the platform's products and services, which range from asset tokenization to financial research data and even self-custody escrow services. VeADIR stands for Veritaseum Autonomous Distributed Interactive Research. It is the core component of the platform. It gives exposure to vetted research subjects and serves opportunities to grow its asset base through positive risk-adjusted returns. For instance, if someone wants to invest in an ICO and needs comprehensive information to weigh the risks, they can submit a query via VeADIR, pay with VERI and receive the requested information from Veritaseum. Research results then are fed back into the VeADIR system, and the cycle continues. All information is transmitted in machine learning language and needs to be translated to common vernacular using smart contracts. Source: <https://cryptonews.com/coins/veritaseum/>

LINKS / DOCUMENTS:

TERRA Trade Reference Currency by Economist Bernard Lietaer
LINK <http://lietaer.com/2010/01/terra/>

GITHUB Documents: LINK <https://github.com/Beacon-Heart>

Medium Article LINK <https://bit.ly/2s6Fnav>

MEDIUM ARTICLE: Digital Nations need an Ecologically sustainable Economic Heartbeat
LINK: <https://medium.com/@heart.beacon.cycle/eco-sustainable-economic-heartbeat-43e4e30246da>

MEDIUM ARTICLE: Deep Thought pondering the crypto blockchain through Alice's Looking Glass: LINK <https://medium.com/@heart.beacon.cycle/deep-thought-pondering-the-bitcoin-blockchain-f20ad6112d7>

MEDIUM ARTICLE: "Delusional Bitcoin Vs Fool's Gold":

LINK: <https://medium.com/@heart.beacon.cycle/delusional-bitcoin-vs-fools-gold-e4bea26afba8>

PIN INTEREST: <https://pinterest.com/mcgee3077/eco-economic-heartbeat/>

AngelList: https://angel.co/heart_beacon

Patreon: https://www.patreon.com/beacon_heart

FACEBOOK: <https://www.facebook.com/beaconheart>

MINDS: [https://www.minds.com/beaconheart/](https://www.minds.com/beaconheart)

TWITTER: @Heart_Beacon https://twitter.com/Heart_Beacon

PAYPAL: PayPal.Me/EcoEconHeartbeat

LINKEDIN: <https://www.linkedin.com/in/ecoeconepochs/>

EIN Earth Intelligence Network: see Robert David Steele's #UNRIG proposal
@ <http://robertdavidsteele.com>

#UNRIG: <https://scribd.com/document/358073517/OPERATION-Rig-UNRIG>

SOURCE: #UNRIG - Public Intelligence Blog

Phi Beta Iota site: <https://phibetaiota.net/unrig/>

Web Sites | Robert David Steele  <https://robertdavidsteele.com/web-sites/>

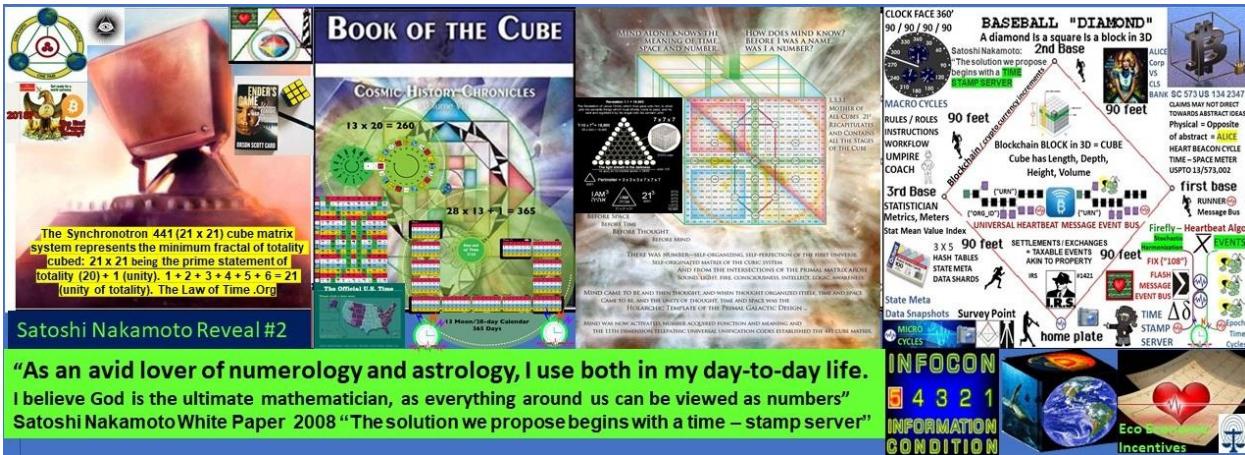
#UNRIG - Unity for Integrity (Election Reform Act Proposed) <https://unrig.net>. Founded by **Robert David Steele**, with the early support of Dr. Cynthia McKinney, this is a placeholder site for the twelve specific reforms needed to create educated engaged democracy and unrig the "pay to play" **system**.



HEART BEACON SCULPTURE PORTLAND OREGON [LINK](#)

[LINK https://www.codaworx.com/project/heart-beacon-city-of-portland](https://www.codaworx.com/project/heart-beacon-city-of-portland)





The Greater Reset of 2021 and beyond