

## MAPPING – CIQ unit of measurement

### Introduction

The connecting glue between data, peers on the network and information across the universe is called mapping. All Dsensor protocol peers are called Mappers. The purpose of the network is to “map out” the environment, life and the Cosmos at large. Each peer in the network has the right to participate in mapping activities, whether that be sensor data recording, computation or 3D printing. Mapping activities will be 'rewarded' by a value or voting outcome granted by each individual peer on the network. The proof of data mechanism on the blockchain preventing the gaming of mapping.

### Function of Mapping

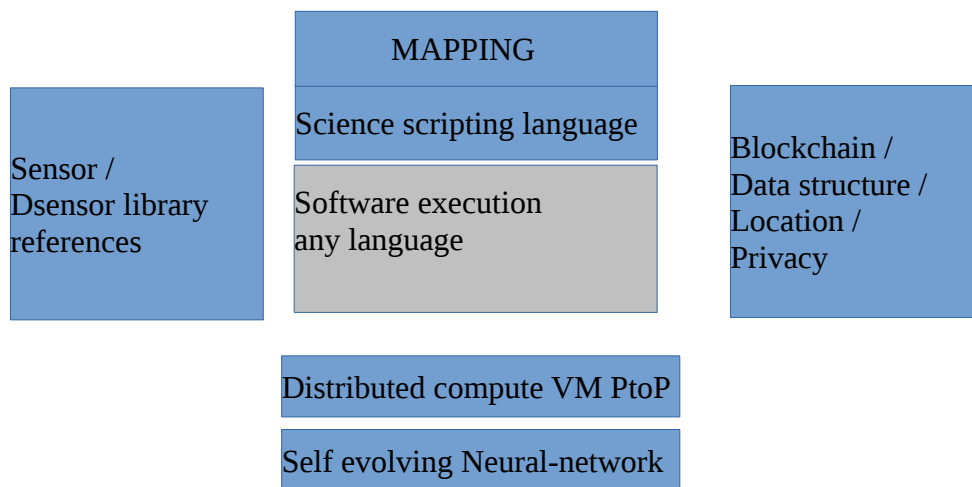
The act of mapping covers the following:

### Networked Sensor Science & Collaboration

#### Introduction

Two forms on science value needs to be mapped out. Existing knowledge in the form of information and scientific hypothesis set out in information. A mechanism to map both types will be required.

The first stage is to establish Networked Sensor Science based protocol. And from these crude beginnings expand the range of science activities to be mapped out. Evolving the protocol over time will be built into the protocols software design.



### Science Scripting Language

To provide a standardized/ constrained set of commands to summaries a scientific network hypothesis or summarized equation or proof. This will be mapped an execution environment where any software language can actually preform the computation.

A hypothesis is an equation that states the relationship between independent variables to dependent variables. Where all variables are traceable back to sensor captured data.

### Software Execution Language

An extension/API library will allow the network hypothesis equation to be mapped to software code written in any software language.

### Distributed Compute VM Peer to Peer

The networking protocol that unites a network of peers on a single compute hypothesis.

### **Self Evolving Neural Network**

The interconnecting of hypothesis equation and autonomous execution of new compute cycles.

## **Deeper look at Network Sensor Science & Collaboration**

### **Network Hypothesis & equation**

All hypothesis and supporting equation (computation model) will be authored in a structure that makes them accessible by the network of peers.

### **Network Collaboration**

A network becomes establish by the participation of peers in adding sensor data for providing computation resources. The starting hypothesis and supporting equation can also be 'forked' or added to or extended or altered. Thus providing an audit trail of connected hypothesis and it is envisioned these will act as a neural network computational resource and data pool for the peers.

### **Example Network Science & Collaboration**

Lets take the hypothesis that an increase in environment temperature increase mobility of humans? The sensors would record the environment temperature and activity movement e.g. an accelerometer on an activity tracker.

All variables must be declared in the context of a sensor hardware.

$$T = Ax + e$$

Measuring temperature is a good variable to compare the difference between traditional science and network science approach. The Stevenson screen provide a standardized environment for taking the temperatures. However, the reality is temperature will vary place to place, and for an individual that may be inside or outside, outside in the shade or light, direct sunlight or via a reflection. In short it is a lot messier, i.e. reality is not standard. However, a network science will embrace such diversity of reality and use the information of the network to unscramble the relationship(s) between variables.

Does the hypothesis hold for the number of lines of code written?

Here the network science takes off.

## **Value of Science**

### **Introduction**

A new scripting language for authoring scientific hypothesis will be built. (need to review suitability of ethereums Solidity language). This will provide a range of tools to stitch together peers, sensor data, blockchain references and computational resources.

### **Mapping value activities:**

### **Precision of measurement**

Each sensor registered on the network will be rated for its granularity of measurement.

### **Computation and Complexity**

A VM computation quantity of computational resource will be standardized and combined with complexity of program execution quotient that has some existing validity in mathematics/computer science.

### **Collaboration and consensus**

The inner working of the proof of data/stake mechanism for the operation of the personal and other blockchains. This will be strongly subject and reflect peers participation i.e. voting with their own data and computation resources.

### **Cause and Effect**

A hypothesis that achieves 100% consensus across the network. Becomes an ever present computation model running on all peers data.

### **Research Signal**

#### **Introduction**

This will replace price (as in monetary) signal as the governing number for the network to guide its collaboration activities. For example, this will give sensor makers the insight on where to innovate for greater granularity of measurement or highlight areas not being measured, or on the computation side, focus energies on the urgency of problems needing solved or an indication to the entire network of the complexity of a problem etc.

#### **Past - Future**

The Research signal will use all available information. Looking to the future will be the primary concern of signal and thus giving the network of peers the best insight to focus there activities.

#### **Future Hypothesis**

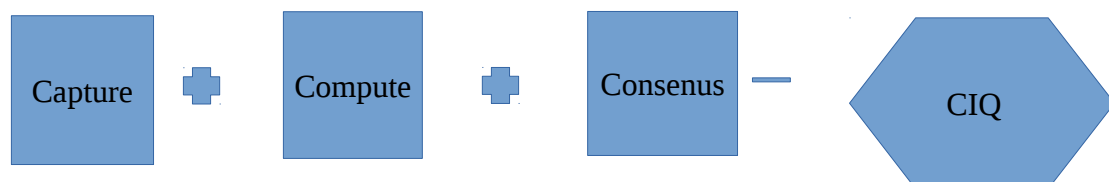
The future is an uncertain place. Is it possible to find a consensus mechanism to value hypothesis. Yes, by the use of simulations. These simulation will be based on the consensus outlook each peers chooses to support.

### **CIQ – Attaction Currency**

#### **Introduction**

This will be an Attaction currency with units of measurement call CIQ (pronounced Sync). Cryptocurrencies reward that act of mining, an Attaction currency will reward the act of mapping. An Attaction differs from all monetary (fiat or crypto) currencies in that 'pricing' is context specific and the underpinning information in that context is actionable i.e. can be used directly in any computation.

#### **Three value vertices's**



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## **Capture**

Fixed objective measure mechanism. Like printing your own money.

## **Compute**

The use of the captured data in a computation e.g. how many times

## **Consensuses 'votes'**

A subjective value expression by any peer in the network. Gives the property of different 'prices' for different networks of consensus.

Sample calculation:

1. Bytes of data (some sort of quality index to normalize on)
2. Computation complexity (look at [http://en.wikipedia.org/wiki/Blum\\_axioms](http://en.wikipedia.org/wiki/Blum_axioms) )
3. Number of peers in network activity collaborating data or computational resources..

## **Prevent fraud or gaming of the system**

### **Made up data**

Proof of data mechanism via Dsensor library

## **Computation for sake of computation**

### **Outcome of data**

Proof of printing mechanism via Dprinter library

### **Collusion of consensus**

False network created to create false peer votes

### **No transfer of CIQ**

An Attraction is none transferable between identities. It is a one way flow or osmosis of value to an individual, sharing data or computation models is the mechanism exchange 'value'.

## **Compared to Fiat or Crypto Currency**

One universal price signal is generated by the market mechanism, this false to hold true for a Attraction. Speculation is not possible due to the non transferability of an Attraction. Store of wealth, intrinsic value or transaction value are non rational mechanism for an Attraction.

There is no need to have money supply and demand. Money supply in fiat or crypto currency is

abstracted to notional terms, an Attraction currency captures the information behind reality. If there is more than one reality there will be more than one Attraction currency.