

DOI: 10.21625/archive.v3i2.512

**Democratically Smart World****- from Neighbourhoods to the World****Preyan Mehta<sup>1</sup>**<sup>1</sup>*School of Design, Swarnim Startup & Innovation University***Abstract**

This paper discusses as to how the Human civilization has evolved over time, and how we already have become semi-humanoids. Living in the data driven society, we rely hugely on numbers and data, rationality and science ((Lohr, 2013)). Darwin postulated, and I paraphrase, complex organisms evolve out of the simplest ones, and the new, evolved and complex organisms evolve according to the natural selection and become better versions of yesterday ((Ghiselin, 2013)). This paper focusses on the development of a Universal system, which would help us solve all of the Global issues. Accordingly, this system proposes a Symbiotic relationship between the three major forces present on Earth- Humans, Nature and Technology. Currently, Humans have a Linear relationship with both of the forces. We are the Predators and Nature is the Prey. Because of this relationship, Human civilization have started to fear its own creations, which is reflected through what Prof. Stephen Hawking shared with BBC, “...The development of full artificial intelligence could spell the end of the human race.... It would take off on its own, and re-design itself at an ever increasing rate.... Humans, who are limited by slow biological evolution, couldn’t compete, and would be superseded.....”((Cellan-Jones, 2014)). The system proposed in this paper will be Democratic in nature, where all the three forces have an equal voice to speak. The symbiotic relationship will be based on a concept known as Mutualism,” where all species mutually share the limited resource increasing both species ’ chances of survival or reproduction” ((Wolfe, 2016)). Till date, the World has not seen the true form of the Democracy. Instead, have witnessed pseudo Democracies, where the power is handed over to the few after the elections and the citizens stay where they were before. Instead, a true Democracy translates into- “By the People, for the People” ((Maskanian, n.d.)). The system is based on the principle, that to maintain a balance between powers, one need not go to war with it. Instead, try and understand one simple concept- “All is one, one is all”((Kotsos, n.d.)). As small as this statement is, it explains the entire functioning of the world. This paper will conclude with answering to the question, “The Distant Utopia or a mere Mirage?” and will also try to lay down the fundamentals of how to make the World Smart and not just few Cities, comparing the World to an Organism and Cities with Organs.

© 2019 The Authors. Published by IEREK press. This is an open access article under the CC BY license (<https://creativecommons.org/licenses/by/4.0/>).

**Keywords**

Data; Technology; Nature; Humans; Linear Relationship; Predator; Prey; Artificial Intelligence; Evolution; Darwin; Symbiotic Relationship; Mutualism; Power; Society; Extinction; Natural Selection; Humanoids; Robot; Reality; Democratic; Smart City; Smart World; Decentralization of World Power; Global Issues; World Constitution

## **Democratically Smart World- an introduction**

The paper focuses on proposing a System, a Symbiotic relationship between three of the Major forces of the World- Humans, Human's creations (technology) and Nature. Humans, of course, are a part of the Nature, and Technology is a Part of Humans' manifestations. Humans evolved from unicellular organisms and Technology is nothing but an extension of Humans which we created to help us overcome our own limitations and slower biological evolution ((Than, 2010)). Even though we Humans, and our own creations (technology) are part of the entire Ecosystem, when one force tries to become stronger than the whole, it needs to be checked and controlled. Over the period of historical time and throughout our own Evolution, we have always tried to eat more than we could digest. We have always thought of ourselves as the Ultimate Conscious beings, smartest amongst all living beings ((Snyder, n.d.)). When this thinking of controlling a force to maintain the balance of the entire system becomes the priority, radical changes and strong decisions must be taken. That is how, we have lived and known to live since our inception as a species. The system hence proposed here, is where there will be no need to maintain a balance wherein one force becomes stronger or weaker than the other, but instead, it is always working, keeping in mind the balance of the entire ecosystem. The three forces, Humans-Nature-Technology (H.N.T.), will be called as Triad (group of three) of Forces (or simply Triad-F throughout the paper). Triad-F is the solution because in a Triad, if one of the force becomes more powerful, then the other two forces can neutralize it and maintain the balance. Whereas in the existing Dyad of forces- Humans and Nature, one force can easily start becoming ominous and try to tame the other ((*10 Ways Humans Impact the Environment*, 2016)). Humans, even though are Intelligent, they have their own prejudices which is why they cannot be given the majority of the Power share in the Ecosystem. Therefore, introducing our own creation will help stabilize the Power share. We have developed the technology to the extent now, that they will soon achieve Artificial General Intelligence. Once they do that, we will have another force to take into consideration which will be trying to gain power ((Koch, 2015)). Noting that, even though Technology may achieve full Intelligence, they are programmed and work on Algorithms. Because of that fact, they cannot be Conscious (in reality the entire theory of Consciousness is debatable, but for the sake of this paper let us consider that they will not be as conscious as we are)((Graziano, 2016)). And because they cannot achieve Consciousness, they cannot have Prejudices. Here then, nature, which is a force running on its own resources; humans- running on consciousness, intelligence and resources; and technology- running purely on intelligence and resources will act as the Perfect Triad.

The system equates the World as an Organism, where Citizens are the Cells, Neighbourhoods are the Tissues, Cities are the Organs and Countries are the Organ systems.

## **Research Methodology**

1. Emergence and polishing of the Idea- World as an Organism and Citizen as a Cell
2. Dissecting, segregating and selecting few of the layers and its details
3. Explanation of the layers- Geographical Layer, Technological Layer, Urban Infrastructure, Political Layer, Economical Layer, Rating system, Analytical Power of the Technology
4. Designing an Escape plan, if and when the Doomsday (Natural and Artificial) comes
5. Conclude with answering the question- The Distant Utopia or a mere Mirage?

## Body of the Organism

### Geographical boundaries

The current population of the world is 7,632,819,325 or 7.63 billion and the projected population for the year 2050 is 9.7 billion or 9,700,000,000 (*World population projected to reach 9.7 billion by 2050*, 2015)). Let us assume, for the sake of this paper, that the population in the year 2050 will be 10 billion or 10,000,000,000. This population will be distributed as per the hierarchy of cell to the organism. Where,

1. 1,000 Citizens = 1 Neighbourhood
2. 1,000 Neighbourhoods = 1 City
3. 1,000 Cities = 1 Country
4. 10 Countries = The World

(1,000 Citizens x 1,000 Neighbourhoods x 1,000 Cities x 10 Countries = 10,000,000,000 Total Citizens)

The total land area on Earth is 148,900,000 km<sup>2</sup> ((Springer, n.d.)). If we divide this area by 10 (total no. of Countries), we get 14,890,000 km<sup>2</sup> per Country. Analysing the World Demographics for the Land Area under usage by different countries, there are currently around 224 countries in the world, where the maximum area of land is 16,376,870 km<sup>2</sup> (Russia) and the minimum of the area is 1 km<sup>2</sup> (Monaco), and their populations are 144,300,000 and 38,499 respectively. That means in Russia, a single person gets 11,000 m<sup>2</sup> and in Monaco, a single person gets 28 m<sup>2</sup> (note: this is not the exact density for the countries, because of many factors such as social, economical, political etc nor does it represents the entire range of the densities of the countries) (*Largest Countries in the World by Land Area - Worldometers*, n.d.)). This system's first step is to eradicate the Geographical limitations by distributing equal land for all the citizens of the world. According to the calculations, each country will get 14,890,000 km<sup>2</sup>, i.e. each city will have 14,890 km<sup>2</sup>, each neighbourhood will get 14.89 km<sup>2</sup> and hence each citizen will get 0.01489 km<sup>2</sup> or 14,890 m<sup>2</sup> of land to live on, equally, no matter which country you visit. Neighbourhood, being the smallest Geographical unit deciding the physical boundaries of the same, automatically defines the physical boundaries of the entire world. The world's land, if charted on a piece of a flat paper, forms an organic shape (only the land). All the shapes are the derivatives of a polygon and the smallest polygon is the Triangle (because two connected lines can never form a shape but as soon as a third line is introduced, a triangle is formed, which is the most basic of all shapes and which can form all the other shapes). Hence, the smallest geographical unit- the Neighbourhood, will be a Triangle in its shape. The area of a single Neighbourhood is 14.89 km<sup>2</sup>, but we are only going to take area of the neighbourhood to be 14 km<sup>2</sup> (the remaining area, i.e. 0.89 km<sup>2</sup> will be discussed later) and the formula for area of a triangle is

$$A = (h \times b) / 2 \quad (1)$$

Where (Equation (1)) A= area of a triangle, h= height of the triangle measured from the base, b= base length. So, A= 14 km<sup>2</sup>, therefore through the method of Trial and Error, we get one dimension to be 5.6 km and another 5 km, where 'h' can be either 5.6 or 5 and 'b' can be either 5 or 5.6 respectively. Based on the height and base measurements, the permutations and combinations to form a particular triangle will be many, which will help encompass the organic shape of the world. In terms of land usage, the entire land area (liveable) will be divided into three parts (based on Triad-F). One third has to be covered by Humans, another third by Technology and the last third by Nature. That means in a single neighbourhood, each force will get 4,666,667 m<sup>2</sup>. Coming back to the area of land left out of the equation, i.e. 0.89 km<sup>2</sup> from each of the neighbourhoods, total area left out of the equation is 0.89 x 1000 x 1000 x 10 = 8,900,000 km<sup>2</sup> (N x C x Co). This area will be used to make City Capitals, Country Capitals and World Centre. The areas will be divided in the ratio of 1:2:3 (city: country: world) based on the importance they hold. Hence 1,000 City capitals will get 1,483,333 km<sup>2</sup>, i.e. Single City Capital will have an area of 1,483.33 km<sup>2</sup>. In a similar way, each Country Capital will get 296,660.6 km<sup>2</sup> and World Centre will get 4,449,999 km<sup>2</sup>.

### **Technological wiring**

Weaving threads upon the Geographical fabric, are the Technological wires. The entire system is known as Democratically Smart System (D.S.S.). This system controls the entire Technological Front of the Triad-F. The technology will run on the concept of Internet in air, i.e. Cloud Computing and Wifi. The Wifi here doesn't require modems to give the output, but instead embedded within the electron particles of air in the ionosphere (a hypothetical idea of Nikola Tesla, taken further and used for Internet rather than just electricity)(Dickerson, 2014), and hence Internet for everyone, everything and everywhere. For cloud computing, we still require Servers to store Data and Information, the reason being privacy. Now, the Cloud is known as Democratically Smart Cloud (D.S.C.) and the servers, being shared amongst all the citizens of the World, are known as Shared Servers (S.S.). This nomenclature is important for the further understanding of the hierarchy.

- D.S.C.i (Cloud for Individual)
- D.S.C.n (Cloud for the neighbourhood)
- D.S.C.c (Cloud for the City)
- D.S.C.co (Cloud for the Country)
- D.S.C.w (Cloud for the World)

This hierarchy is Top to Bottom. That means that D.S.C.i is the most basic cloud, which will then integrate with the D.S.C.n, D.S.C.c, D.S.C.co and then finally integrating into D.S.C.w. Hence, similar to the chain, citizen till the world, even the Clouds will follow the same. The hierarchy for the Shared Servers also remains the same, S.S.i, S.S.n, S.S.c, S.S.co and then finally S.S.w.. The D.S.C. will be storing all the data in the S.S.. When we are talking about the world, which will be totally based on the sharing of information and synchronising a lot of information, we also need to store that information somewhere and that is why Shared Servers exist instead of just Servers. Hence, connecting all the Shared Servers together helps maintain this chain of command and also store huge amounts of Data. Another logic behind Sharing servers is if one S.S.i fails or if one D.S.C.i fails, the entire system won't collapse, or also, if the main D.S.C.w./ S.S.w. fails, then the entire system won't collapse. Instead they'll redirect the data and information channel onto to the next point in the circuit, considering the lost cause as a void (what will happen if the entire system collapses or the D.S.C.w./S.S.w. collapse? We'll discuss that later under the topic, "The red Button").

### **Urban infrastructure**

The triangle (shape of the Neighbourhood) will be divided into 3 parts as already discussed, each having an area of 4,666,667 m<sup>2</sup>. It means that humans will only get that much area for the purpose of living, trading, industrialising etc. It also means that the same area of land will also be used dedicatedly towards Nature, in terms of plantations, forestry, agriculture etc. and that the technological infrastructure will also be of that much area, which includes S.S.ns, D.S.C.ns, roads etc. The zoning will follow the concept of outwards to inwards, meaning that humans will live on the corners of the Triangle, Technology in the centre and Nature in between both of them. The layout is deduced through the reasoning that humans need to socialize not just amongst the citizens of their own neighbourhood, but also with the other neighbourhoods. The citizens as are on the corners, will interact with 3 of the adjacent neighbourhoods. More than the social and culture factors, this arrangement also allows the possibilities for the development of common amenities, centers, buildings, institutions etc between four neighbourhoods. Based on the geographical location of the neighbourhoods, the resources will be divided and allocated to them. The arrangement of massing of the population directly influences the road networks- the main highways are outside the population, i.e. on the edges of the triangles and the internal roads will diverge inside and towards the nature and the center which is a technological hub. Note that these are not iron grids but guidelines which will help

design the urban fabric of the society, strategically, in a defined manner ((Dawes & Ostwald, 2017)). For example, neighbourhoods are triangles but that does not mean that all are equilateral triangles or triangles with the same height and the base, nor does it mean that the City will also be triangular and the country as well. It will simply follow its own course of formation based on the geographical location and the typology of the natural topography.

In the year 2050, we will advance to the extent that we are no longer required to drive a car, for better or worse ((*Autonomous Driving – five steps to the self-driving car*, n.d.)). Utilising this autonomous system of cars and integrating the cars with the D.S.C.i-s and on the bigger scale, D.S.C. (for cars) will enable us to tap the possibilities of less or no traffic jams, re-use of the same car for more than one user, less accidents, ease of transportation, human comfort etc. Because of urban planning, walking is always favored and awarded. These layout will help make the neighbourhoods- Walk-able neighbourhoods. The public transportation systems are inspired by living organisms, for example earthworms, which travel by overlapping each other, without disturbing the other's routes or paths. This earthworm inspired public transport also facilitates the system of synchronising with all the cars and people who are walking on the footpaths and can engulf humans as well as cars themselves, to save the fuel. For example, if ten cars have maybe 3 km of the transit as a common path, then these cars will get attached to these earthworms for that much distance and will get detached when the time comes. Similarly, the same applies for people. These earthworms save fuel, time, and congestion, hence reducing the number of accidents occurring. The earthworms are always on the move and hence, there will be no need to invest in unnecessary infrastructure of Bus stops/train stops/tram stops. When they'll have no passenger, they'll simply move slowly, hardly burning any fuel and will be in hibernation mode. That means, even though cars are private vehicles, they'll also be public and even though the earthworm buses are public mode of transport, they'll also be private. This system, hence tries to diffuse and eradicate the boundaries between Private and Public transportation, over which, there have been many debates lately. Public transportation helps at the urban level but not everyone wants to transit through public transport because they do not want to share their private spaces with others. So, these autonomous earthworm buses and autonomous cars, help in blurring such issues and facilitates better, cheaper, and faster commuting methods. This was one example of Private-Public transportation, on the land. The concept remains the same for the Air and Water, but using different technologies.

What about the City as an Identity through Art and Architecture? Won't this uniformity across the globe, vandalise, and eradicate their own identities? All the neighbourhoods, cities and countries have the freedom to select their own course. Some cities can be Agro-cities, some can be Techno-cities, some Mechano-cities, some Art-cities, some Water-cities, some Commercial-cities and some Edu-cities etc. This will be decided through various factors and decisions taken by the Citizens themselves, including the names of the neighbourhoods, cities and countries. The inter zoning of the neighbourhoods will be done by the citizens and also be decided through the Soul of the Organism, which is discussed in the next topic.

## **Soul of the Organism**

If the Body of the Organism is the Physical environment, then the Soul of the Organism is the Social structure of the world. Without these layers, a body cannot work. Or rather, cannot work with a conscious. We'll discuss about the different sub layers of the Soul, one by one.

### **Political hand**

The system, D.S.S., is democratic in nature because firstly, this system eradicates the need of having any leaders or a political hierarchy. One doesn't need a Political party or an organisation or a leader to govern. If it is a democratic system, then eventually it is the citizen who is responsible for each and every decision taken and implemented. This system, allowing freedom, adds more responsibility on the shoulders of the citizens. The City, Country and World centres are technological as well as political centres for the citizens. The entire system works on a simple concept, wherein a single citizen's thoughts, ideas etc makes a difference. Yes, this system works on the principles of

Voting. Voting, for everything. Is that empowering a single citizen? Yes. So let us see with the following examples which show how a citizen will make a Law/Rule.

A citizen named M45, lives in the neighbourhood- 444, city- 42 and country- 3. A male by sex, aged 23 years old, lives with his girlfriend. Here are few demographics, which are important while understanding the neighbourhood and it's thinking.

No. of Men- 500; No. of Women- 400; No. of Children(aged under 18)- 100; No. of Married couples- 350;

Overall distribution of the age groups- 1-10 years (55), 10-17 (45), 18-30 (600), 31-50 (100), 51-100 (200).

Now, M45 is not married but is living with his girlfriend, W40 (Add.: N578, C57, Co3). One day they were kissing each other outside their front gate and a middle aged couple with children, felt awkward looking at them, especially because they had their children with them. They tap their watches, the husband opens D.S.C.n444, opens the section of "New Rule" and types- 'Physical display of Affection in Public must be banned'. As soon as he clicks on "Post for the Elections", dated 23/09/2053, will be stored and the question goes to the Cloud-n444, which will then be pushed to all the citizens of D.S.C.n444 on 07/10/2053. This is done because the new Neighbourhood Rules are up for voting every 1<sup>st</sup> Sunday of a month. The day comes, i.e. 07/10/2053 and that Potential Rule (P.Rule) will be pushed to all the citizens of N444, and will be under the tag, Level 1, P.Rule 3. As all the citizens can post for New Rules, this time there were 9 P.Rules, tagged under Level 1. A side note, only one new Rule can be added to D.S.C.n every Month. All the 9 P.Rules were displayed to 900 citizens of the N444 (only 18 or above can Vote), along with their Conditions and Reasons and have 3 hours of Voting time in the morning, i.e. from 9-12am. Out of all the P.Rules, a Single Citizen can only vote for 3 P.Rules at the Level 1 and only the top three P.Rules will tagged as Level 2. These P.Rules will be pushed to the citizens after the results, where now single citizen can only vote for a single P.Rule. That clearly means, the entire population will be divided into three P.Rules. Considering that P.Rule 5 got the maximum votes out of the three and hence will move up on the ladder to Level 3. This is the level, where the citizen's votes does not count anymore. The Citizen's participation is over. Now, the D.S.S.n444 will take over the entire process. The D.S.S.n444 will scrutinise the P.Rule 5 in two steps. In the first step, it'll crosscheck that P.Rule doesn't violate any existing Rules of N444, C42, Co3 and the World's Rules. Considering for now, that it doesn't violate any of the existing rules and also, that this rule in some way or the other does not exist. Then it goes to Step two. Here, in this step, P.Rule 5 will be marked according to the H.N.T.'s parameters (Humans, nature, technology) and will also predict the effect of the P.Rule on the N.R. (Neighbourhood Rating). Considering further that the P.Rule 5 does good in the H.N.T. test and is actually improving the N.R. (H.N.T. and N.R. will be discussed later in the topic), then the D.S.S.n444 will push this P.Rule, as Rule no. ## (in order with the existing rules), along with its terms, conditions, and penalties. If the above example was to go in a different direction, i.e. if the P.Rule would not have gotten positive test in H.N.T. and in terms of N.R., then P.Rule 5 would have been eliminated from the competition and the next P.Rule, with the 2<sup>nd</sup> highest votes, would have gotten tagged as Level 3 and again the same process would have happened. If out of three P.Rules, none were to be converted into a Rule, then the citizens will be asked for a "Re-election", where now only the remaining of the P.Rules, i.e. 6 of them will be there in the re-election. If the majority of the citizens Vote for No, then re-election will not take place and no new Rule will be added to D.S.S.n444 that month. Also note that after the elections are done, except for the One Rule which got elected, all other P.Rules will be tagged as Level 0 and will be Archived (the use of which will be discussed in the topic- Brain of the Organism). If the citizen wants to Remove or Edit a certain Rule, it is an Annual process where Voting in the similar pattern will take place. Neighbourhood Rules are made every month and changed/removed every year because citizens are directly under the influence of them all the time and hence a quicker process is an advantage for them. Similarly, Rules will be made for a City, a Country and for the World, with modifications such as City's elections will happen every 2 years (adding, removing or editing a Rule) every 3 years for a Country and every 4 years for the World. This example was at a grassroot level, i.e. Neighbourhood level. Let us take just another example, of other end of the spectrum, i.e. Making a New Rule for the World.

Making Rules for the entire World is tricky and hence the process is little longer than that of a neighbourhood.

Because the election will take place at a Global level, where there could be 1,000 or even 1,000,000,000 entries (all tagged as Level 1 P.Rules), the election goes on for an entire Month (January), first month of every 4 years. Except for neighbourhood elections, whenever a user types a new P.Rule, they are checked for discrepancies, similar existing rules and or even suggestions based on the keywords they type in, in the similar ways as to how we are used to suggestions given to us as a drop down menu when we are searching for something online. The process for selecting the Rules is in the reverse order and here it doesn't start with the process of Voting; rather it starts with a three step process. The first step will cross check for any similar existing Rules at the World level (including all the sub levels) and if the P.Rules doesn't exploit any existing World Rules (including all the sub Rules). The next step is testing the P.Rules through the H.N.T. and W.R. (world rating) and will be awarded marks. The last step involves selecting only 10 P.Rules from each of the Country (the logic being, because these are the world level Rules, the number of citizens wanting to make a Rule for the world can be as high as 1 million or so), i.e. in total 100 P.Rules and then these 100 P.Rules will be tagged as Level 2. Now, at Level 2, the 100 P.Rules are pushed to the Citizens for voting where a single citizen can only vote for 10 P.Rules at the Maximum. Now, along with the Voting results, all the 100 P.Rules will move forward to the Level 3. At Level 3, D.S.S.W will go through a 2 step process. The first step will check for the number of votes achieved by each of the P.Rules and will run an algorithm to see how will all the P.Rules perform and influence the World and the Citizens over the next 50 years. Accordingly, the P.Rules will be marked. The last step involves ordering the P.Rules under each Country, from Top to Bottom. That means, each Country will have a list of 10 P.Rules based on the markings achieved in the last step, where the top P.Rule will be having the maximum of the marks and the bottom P.Rule will have the lowest of the marks. Then, D.S.S.W. will select only the Top P.Rules of each country and thereby a total of 10 P.Rules and 1 P.Rule from each country will be tagged as Level 4. Level 4 P.Rules are the World Rules for the coming 4 years, and will be pushed to all the citizens throughout the world with their terms, conditions and penalties. 1 Rule from each Country is selected, so that no single country can become more powerful than the other and hence maintaining the balance eventually (Special note: no matter at which level, the Citizen's identity will not be disclosed throughout the entire Voting process, but the citizens are entitled with the power of letting others know if they want to). Here, also note that Voting is not just a Right of the Citizen but also a Universal Rule, just like the Rule of maintaining balance between the three forces, which cannot be broken. The citizen will have option to pass the Voting process 3 times at the neighbourhood level but when it comes to the world level elections, every citizen must Vote. What happens if they stop Voting? (it'll be discussed under the topic- The Red Button).

### **Economics of the oxygen**

The currency for the entire world will be "De", or Demo-Currency.

$$1 \text{ De} = 1 \text{ Calorie} / 4.186 \text{ J} / 4.186 \text{ w/s} / 2.6 \times 10^{19} \text{ ev}$$

The money, Demo-currency equates to the Energy Units. This is done in accordance with that fact that everything is but Energy, in one form or the other. According to Einstein, "Energy can neither be created nor be destroyed. It can only change from one form to another", also known as the Law of Conservation of Energy (considering a closed system)(*What is conservation of energy?* (0)). This is the core fundamental for selecting Energy Units as the World Currency. This is a Universal Currency, which means that no matter where you stay, in whichever corner of the world, this is the currency you'll use and trade with. Physical currency is not Efficient and is a fake currency in its inception (*The Fractional Reserve Banking System / Zeitgeist Addendum* (2009)). The reason why Barter system for trade was better than the current Monetary system throughout the world is- it had a universal language. But because people started abusing this system with dominance and power, the system changed into Currency notes and coins. This system creates lot of waste, which means we are wasting the Energy form in one way or the other. When the Currency is Digital, we save a lot of Resources in printing, distributing and making the dye etc. If everything worked on the same currency throughout the world, yet another reason for any country to become more powerful is negated. Also, a person can earn this Money earnestly, equally and anywhere. Going back to the concept of "All is one, one is all", anything and everything can be converted down to its smallest units

as Energy units. This currency gets stored with you on your D.S.C.i, and cannot be hacked (technically, a person can. But because everyone and everything is under the eyes of D.S.S. thus hacking and adding that money to some other place will be nearly impossible). This account stays in the name of the person, from the day they are born and perishes once they die, giving back to the world the energy which was stored inside/with him/her. Through the example of an Apple, we'll now study how trading will happen in this system. The Apple's cost is nothing but Embedded Energy, meaning from the process of growing them till the process of bringing them to the market to Sell. The entire process will have lots of energies embedded within it, which will then be calculated in all the steps and then added up. This total will be divided into how many apples can be sold. This will be the cost of the Apple which the person needs to pay through the D.S.C.i directly. It takes all the parameters, like the time it took to grow, the cost of seeds, the cost of maintaining the apple trees throughout that number of years, the number of trees which couldn't bear fruit, the cost of the fertilizer, the cost of the fuel when transporting it to the market etc. This is something that a person cannot manipulate or calculate by himself. Hence, here the upper hand for all the calculations will be with D.S.S.. The D.S.S. doesn't allow or facilitate Profit margins. This is done in accordance with the fact that when there is Profit, there is Loss. The loss could be incurred on the behalf of anyone or anything, but it surely has to come. Following this concept of Profit- Loss, there always comes the concept of Rich and Poor. This system also envisions solving few of the major Global issues, which are Poverty, Economic inequality, Hunger and Poor health etc. D.S.S.w., gives and allocates the daily Demo-currencies to all the citizens of the world according to the Age and Sex. Nobody needs to earn money to survive, but only to buy luxuries or more than what the basic requirements to live are. The currency allocated is calculated per person's age and sex and is updated daily on their D.S.C.i., as per the Calories required to stay alive (not to achieve obesity). If someone wants to eat more than he/she should, then they need to earn that extra money through Jobs. The Basic three things are Food, Shelter and Clothes. These things' monthly budget will be calculated per person and hence the required amount of money (which is nothing but energy units) will be generated.

This leads to the next topic- Budgeting. The D.S.S.w will analyse and calculate the annual requirement in terms of all forms of energies for the Entire world population and hence, that will help deduce the Annual Budget for the World for that year (every year's data will be recorded and will be used to decide, predict etc for the next year. This will be discussed in detail under the topic- Brain of the Organism). Let us take the Annual Budget for the World for the year 2053 to be 200,000,000 Quadrillion Demo-currencies or 2 million quadrillion demos (this number was deduced and approximated from the World Energy Consumption Statistics). The D.S.S.w will distribute this money to all the Countries based on their Country Ratings. Ideally if all the countries have the same ratings, they'll get 0.2 million quadrillion demos. But that can never be the case or rarely will be the case. Let us understand the concept through an example. The Country Ratings for the year 2052 were: Co.R.1=8/10, Co.R.2=5/10, Co.R.3=7/10, Co.R.4=6/10, Co.R.5=5.5/10, Co.R.6=9/10, Co.R.7= 9.5/10, Co.R.8=5.5/10, Co.R.9=3/10 and Co.R.10=7/. The Co.R. is the average of all the C.R.s(City Ratings) of that Country, and C.R. is the average of all the N.R.(Neighbourhood Ratings). After attaining the Co.R.s of all the Countries, the D.S.S.w. will find out the average Co.R. for all the Countries, which will become World Rating (W.R.). For this example, W.R. is 6.55/10, based on which it analyse that out of the 5 countries whose ratings are below the W.R., 3 of the Countries were struck twice by Natural Calamities during the last year and hence, due to that factor, the Rating came down. The other 2 countries, whose ratings are below W.R., had no particular reasons as to why their ratings were below average. First step the D.S.S.w. will do, is exclude 10% of the total Annual budget and therefore the remaining the Annual Budget for the Countries is  $1.8 \times 10^8$  Quad. Demos, and hence ideally every country should get  $1.8 \times 10^7$  Quad. Demos. The next step is distributing the 95% of the  $1.8 \times 10^7$  quad to the 5 countries whose Co.R. is equal or above W.R.. The 3 countries that were struck by Natural calamities will be given 100% of their budget plus an extra of 5% (loan without an interest, but the extra money has to be returned to the D.S.S.w. the next year along with the improved Ratings) so that those countries could again improve their ratings (and eventually improve the W.R.). The countries that did not have a particular reason for bad ratings, will be labelled Yellow, as it occurred for the first time and will be allotted 95% of the budget as well. The next time if the same thing occurs, then they'll be flagged as Red and the time after that, they'll be flagged

as Grey. The country flagged as Grey, will be given only half of their Annual budget with which they will have to improve the ratings the next year, else that Country will be dissolved and the citizens distributed among other Countries. Then a new country will be formed, whose citizens will be selected analytically and will be informed to move to that country. 3 Warnings are given because of the fact that dissolving an entire country and building a new one, uses a lot of Money. But on the other hand, if they cannot somehow increase their ratings, they will keep on decreasing the W.R.. All the countries were deliberately given only 95% of their budgets. The reason was to use the remaining money for the purpose of Loans and Rewards. The country that scored the maximum rating, will be awarded the rest of the budget (in the totality, we are still not using the 10% removed at the beginning. The use of that money will be discussed later in the topic- The Red Button). The budget distribution in a similar manner will happen at all the levels of the hierarchy, i.e. Country-City, City-Neighbourhood and Neighbourhood-Citizen (also that all will be left with 10% of the total budget, except for the citizens). Ofcourse, the budget will have lots of sub categories, for example, transportation, healthcare, agriculture etc and will be distributed under the particular categories((Dorotinsky, n.d.)).

### **Rating System- the yard scale**

As discussed earlier in all the topics and sub topics, there always comes a point where Ratings are the most important thing, based on which decisions are taken. The Rating System, follows the Triad-F philosophy and hence has three main components to decide the Ratings- Humans, Nature and Technology. The factors are Human parameters, Nature's parameters, and Technological parameters. The core parameters under each section are- Life Expectancy, Sustainability and Advancement of the Technology, respectively. There are thousands of other sub parameters under each broader parameter, but the main Parameters are these three. Let us take an example, as to how would something be rated. Women-09, N376, C98, Co07, adds a new P.Rule- Cars running on Fossil Fuels shouldn't be allowed inside the Neighbourhood. This P.Rule gets converted into a Rule (for understanding the process of Rulemaking, refer heading- 1.3.1 Political Hand). Now, let us dissect this Rule into the broader parameters.

1. By not allowing cars running on Fossil Fuels, people of Neighbourhood-376 will not be exposed to carbon emissions, and hence will Live Longer and better.
2. By not allowing the cars running on Fossil Fuels, there will be a need for research and advancement in technology for a better, cleaner and cheaper fuel to run cars on.
3. By not allowing the cars running on Fossil Fuels, followed by the arguments that Citizens will Live longer, solution as a New fuel type and hence, not using Fossil fuel, is a leap towards Sustainability.

Therefore, this rule will be rated as, H.P. (human parameters)- 7/10, N.P. (nature's parameters)- 8/10 and T.P. (technological parameters)- 6/10. Hence, the rating for this Rule will be 7/10. The Neighbourhood Rating is an average of all the ratings achieved per rule, per collective decision, per project etc which simply means that if the Citizens of the neighbourhood are actively thinking for the betterment of themselves, then they'll have good N.R.s. This is done based on the understanding of the Human psychology and human tendency to be selfish ((Kaufman, 2016)). So, if a citizen wants to stay fit, live longer, have a good place to live, have his/her neighbourhood to be the best, he/she will have to improve the N.R., and eventually that will improve the Co.R. and that will influence the W.R. and the budget.

With this sub topic, we conclude the topic- Soul of an Organism and the next topic shall cover about the Brain of the Organism.

## **Brain of the Organism**

This topic will discuss the Brain of the Organism, or rather the Analytical, Reasoning, Logical skills of the D.S.S.w.. This will eventually cover topics such as Resource Management.

Firstly, let us rewind about the Voting systems and the system of the Levels. As discussed earlier, the Questions/ Concerns/ Potential Rules etc were Archived when tagged under Level 0. This was done to analyse the Thinking of the citizens in that year. It will analyse the trends occurring over time, the changes in culture and traditions, the changes in Art and Architecture etc. Hence, archiving plays a vital role to Predict the future of the Organism, after 5/ 10/ 100/ 1000 years. What this will help achieve is, better management for the next year in terms of Resources and Money (Energies).

The D.S.S. also analyses the entire Rating systems, all the resources consumed throughout the year, and energy units used throughout the year and that will again help predict how much energy units/ money will be required for the next subsequent years. This will help the D.S.S. prepare the necessary resources to help produce that much Money etc. For example, it will analyse that Water used by the Organism for the entire year was  $123 \times 10^{20}$  Litres (random numbers), and out of that  $20 \times 10^{10}$  Litres got converted into grey water/ polluted water/ waste water,  $10 \times 10^7$  Litres of water caused Water borne diseases, also will be able to analyse specific things like, Co-03 used 40% of the entire water usage of the World, Co-09 re-used 50% of the total annual water usage etc. This was just a small example as to how studying the entire World Demographics annually can be used for predicting the Future problems and advancements.

This Analysis and Logical reasoning will help the Human civilization improve upon and reflect upon their ownself in the holistic sense. Resource management hence acts like the Brain of the Organism.

## **The Red Button**

This topic discusses the times of Emergencies. For example, a Cyclone is about to hit 40% of the cities of the Country- 07. Of course, the D.S.S.c07 will have predicted this disaster before it will happen. Just before the calamity is about to hit (before atleast 4 hours or so), all the Public transportation of that cities will be diverted to the next safer City Capitals, transporting the citizens temporarily. The loss in terms of money, will be solved because D.S.S. of all the levels have the Emergency funds. The 10%, left out of the budget, was the Emergency fund (refer sub heading 1.3.2 Economics of the oxygen). If the Country Emergency fund cannot help the cities rebuild (only talking about the basic city fabric, no extra projects or infrastructure, but only the basic shelter and resources to stay alive), then the D.S.S.c07 will send the reports to the D.S.S.w. and after analysing the situation, the D.S.S.w. will send more Emergency funds inside the D.S.S.c07's Emergency funds. But these problems are manageable. The topic has been named "The Red Button" due to two major scenarios that can take place due to this system or in this system.

Scenario 1, Humans trying to gain Power. To do that, the humans in the totality need to STOP voting. If nobody votes, the role of technology fails. But the next question that arises, is why would the Human race do something that will eventually kill them due to Global issues such as Climate change, Poverty, Hunger, Terrorism, Corruption, etc? Only because of the active participation of the technology, can we survive the day of Extinction. Ok, which means that as the Human race, we will not try to disturb the balance of the World. Another possibility, is the fear of Certain groups of Humans trying to hack the Technology for their own benefits. Even that situation is not possible, because D.S.S. makes and remakes new codes and algorithms everyday and understanding the pattern is near impossible. Also, due to the fact that the D.S.S. runs on Shared Servers, it means that even if someone manages to break the code and try to shut the system from the Core, i.e. World Center, it will not be possible as the D.S.S. in its entirety, runs on every Shared Server of each and every Citizen, meaning the Computational brain is dividing the computational brain amongst all citizens of the world. Hence, Humans have no means of overpowering the D.S.S..

Scenario 2, D.S.S. trying to gain Power. To do that, it would need to run Autonomously, from step 0 to step 10.

The role of D.S.S. is very specific for the entire World. It is only to Aid or Help maintain the balance between Humans and Nature. Meaning, technology in itself is nothing but random algorithms which, if not given any data, cannot work. Considering the worst, that the A.G.I. becomes so powerful that it re-programs itself, then in that situation, the solution is to STOP voting. Yes, if such scenario happens which threatens extinction of humanity, then uniting as a single organism and not voting will bring the entire D.S.S. on halt. If these extreme measures were not enough, then another level of security is in place. An alternative system constantly runs simultaneously along the main frame of the D.S.S.. The day the main A.G.I.'s intellectual, consciousness or reasoning becomes threatening to the World balance than the system running parallel, will automatically shut that algorithm off, make a new algorithm in place of that and switch it over without anyone ever noticing a glitch.

The main reason that the Red Button will never be pressed, is because only if all the three Forces work Mutually, can they benefit, grow and advance further. Due to this reason, none of the Power will try to gain more power as all the forces know their disadvantages of working alone and or working on the top of the chain.

### **The Distant Utopia or a mere Mirage?- Conclusion**

The distant utopia or a mere mirage? The proposed system raises many questions and makes us think- is it so easy to change and improve the world, is it an easy option to hardwire an entire planet than to leave the planet and stay somewhere else or is it just the biggest bluff created by Humans so far, based on the Technological advancements?

This paper and the hence proposed system is a priori knowledge-based system and not a posteriori knowledge based system. That means, it hasn't been quantitatively analysed and then made. It is an idea, erupting out of necessity, out of desperation and out of the pre-conceived notions of the human brain. Why, according to me this system works and will work, is but one thing, Survival Instinct. This system, where taking advantage of the Creator of the Human Race, i.e. Nature and the Creation of the Human Race, i.e. Technology is possible, in its best. We are the common thread between Nature and Technology. Because on one hand we take and with another hand, we make, because we all are but Alchemists. In both of the scenarios, if such a Symbiotic relationship is not maintained and balanced, then one force or the other will wither out. The global issues faced by the Human race, such as Global Warming, Climate change, Poverty, Hunger, Inequality, Superpowers, Terrorism, Over population to name the few, can only be solved if we Manage our Resources Efficiently and Consistently. Resources such as food, water, energy etc are very important, scarce and hard to get day by day(*Depletion of Natural Resources- The needs of 7 billion people*, 2014)). If our society does not stop wasting them because of factors such as World Dominance, Power hunger, War, Military, Law enforcement etc then we will not be able to utilise the actual present resources and our children will not even know about something as small a thing such as a Banana (the fruit). If individuals or organisations or governments do not stop thinking in terms of Profit and Loss, they will no longer have anything to control or govern. Human race will eventually fall in the list of extinction, just like Dinosaurs, but due to our own selfish reasons.

A deeper question the paper raises is, Does the Human Race actually want to survive? Or does it only want to gain more Power? Will the Leaders of the World let this system be put in place? Or will they hold onto their power, like trying to hold water within the grasp of their hands, only to watch it drip and spill in vain? The answer to these questions will decide the fate of the World. We all are striving towards making Cities smart, but how will a Smart City function if the World remains Dumb, while also talking about Sustainability. A City can become smart, or even the smartest, but if the entire network is not smart enough to utilise that, then what is the benefit of making Cities smart? The system hence proposes an Organism- the World, and as the name suggests, a Democratically Smart World- from neighbourhoods to the world. The organism can only work efficiently if it's Body, Soul and Brain are in Synchrony with each other, failing to do which, leads to Death. As discussed in the earlier sections, this Symbiotic relationship is one of the only way our Planet has as a chance of survival.

Looking towards an optimistic and a brighter side, humans already have bits and parts in place for this system to be active by the year of 2050, when the World Population may reach as high as 9.7 Billion. If starting from today,

we start begin designing, integrating strategies towards this proposed system, then maybe by 2050 we can achieve a True and Idealistic World, where everyone is healthy and happy. Hence, concluding the paper, I would say with confidence that the concept of Democratically Smart World, is not just a mere mirage, but A Distant, Promising and the Only Utopia we can have.

## References

- 10 Ways Humans Impact the Environment*. (2016, April). Retrieved from <https://interestingengineering.com/10-ways-humans-impact-the-environment>
- Autonomous Driving – five steps to the self-driving car*. (n.d.). Retrieved from <https://www.bmw.com/en/automotive-life/autonomous-driving.html>
- Cellan-Jones, R. (2014, December). *Stephen Hawking warns artificial intelligence could end mankind*. Retrieved from <https://www.bbc.com/news/technology-30290540>
- Dawes, M. J., & Ostwald, M. J. (2017). Christopher Alexander' A Pattern Language: analysing, mapping and classifying the critical response. *City, Territory and Architecture*, 4(1), 17-10. Retrieved from <https://link.springer.com/article/10.1186/s40410-017-0073-1> doi: 10.1186/s40410-017-0073-1
- Depletion of Natural Resources- The needs of 7 billion people*. (2014, November). Retrieved from <http://www.theworldcounts.com/stories/Depletion-of-Natural-Resources>
- Dickerson, K. (2014, July). *Wireless Electricity? How the Tesla Coil Works*. Retrieved from <https://www.livescience.com/46745-how-tesla-coil-works.html>
- Dorotinsky, B. (n.d.). *Public Expenditure and Financial Management Overview of Issues and Approaches*. Retrieved from <http://www1.worldbank.org/publicsector/LearningProgram/PEAM/DorotinskyBackCh4.pdf> (Course of PEAM- World Bank)
- The Fractional Reserve Banking System / Zeitgeist Addendum*. (2009, March). Retrieved from <https://truth11.com/2009/03/27/the-fractional-reserve-banking-system-zeitgeist-addendum/>
- Ghiselin, M. T. (2013). Darwin, Charles (Darwinism). *Reference Module in Life Sciences*, 419-425. Retrieved from <https://www.sciencedirect.com/science/article/pii/B9780128096338021154?via%3Dihub> doi: <https://doi.org/10.1016/B978-0-12-809633-8.02115-4>
- Graziano, M. (2016, March). *Most Popular Theories of Consciousness Are Worse Than Wrong*. Retrieved from <https://www.theatlantic.com/science/archive/2016/03/phlegm-theories-of-consciousness/472812>
- Kaufman, S. B. (2016, September). *What the Taboo of Selfishness Gets Wrong about Human Psychology*. Retrieved from <https://heleo.com/what-the-taboo-of-selfishness-gets-wrong-about-human-psychology/11119/>
- Koch, C. (2015, September). *Will Artificial Intelligence surpass our Own?* Retrieved from <https://www.scientificamerican.com/article/will-artificial-intelligence-surpass-our-own/> (doi: 10.1038/scientificamericanmind0915-26)
- Kotsos, T. (n.d.). *You are One with the Universal Mind*. Retrieved from <http://www.mind-your-reality.com/universalmind.html>
- Largest Countries in the World by Land Area - Worldometers*. (n.d.). Retrieved from <http://www.worldometers.info/geography/largest-countries-in-the-world/>
- Lohr, S. (2013, February). *The Promise and Peril of the "Data-Driven Society"*. Retrieved from <https://bits.blogs.nytimes.com/2013/02/25/the-promise-and-peril-of-the-data-driven-society>
- Maskanian, B. (n.d.). *Definition of True Democracy*. Retrieved from <http://www.venusproject.org//keywords/definition-of-true-democracy.html>
- Snyder, S. (n.d.). *The Great Chain of Being*. Retrieved from <http://faculty.grandview.edu/ssnyder/121/121%20great%20chain.htm> (Professor at Grand View University; [ssnyder@grandview.edu](mailto:ssnyder@grandview.edu); Online Lecture)
- Springer, M. (n.d.). *Surface area of earth covered by land*. Retrieved from <https://bionumbers.hms.harvard.edu/bionumber.aspx?id=100541> (Primary Source: Coble, Charles R; Murray, Elaine G; Rice, Dole R. Earth Science. Englewood Cliffs, NJ: Prentice-Hall, 1987: 102)
- Than, K. (2010, May). *All Species Evolved From Single Cell, Study Finds*. Retrieved from <https://news.nationalgeographic.com/news/2010/05/100513-science-evolution-darwin-single>

-ancestor/

*What is conservation of energy?* (0). Retrieved from <https://www.khanacademy.org/science/physics/work-and-energy/work-and-energy-tutorial/a/what-is-conservation-of-energy> (Online Course)

Wolfe, E. (2016, October). *6 Types of Symbiotic Relationships EXPLAINED (with examples)*. Retrieved from <https://medium.com/countdown-education/6-types-of-symbiotic-relationships-explained-with-examples-2042042fff49>

*World population projected to reach 9.7 billion by 2050*. (2015, July). Retrieved from <http://www.un.org/en/development/desa/news/population/2015-report.html>