

SDGs Working Paper

Proposal of Renovating Mathematical Protocol for Inclusive System of Sovereignty

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1. Introduction — Why the World is Failing

Nobody has even expected that the COVID-19 bio-terror would have wiped out humankind's convention of living in 2020 — “online” studying-abroad programs; mask police rising; and uncomfortable family-visits. Now humanity is experiencing an unprecedented type of “abnormal” in which none of us are exempt from. Despite closing borders for over a year, the number of the infected never seems to stop breaking the record; the speed of virus variants occurrence is exceeding the speed of vaccine development; and the future is characterized by a sense of insecurity for everyone on the planet. Global issues are no longer confined to the margins of nation states.

The United Nations (UN) is making big calls for the Sustainable Development Goals (SDGs) and for all countries to come together to tackle global issues as one. The problem is that acid rain, dying tropical rain forests, desertification, destruction of ozone layer, rising sea levels and all other global-level environmental destructions, which are obviously threatening to long-term human survival, have never succeeded in inspiring a sense of crisis in us, regardless of how many times concrete and convincing expert data have been presented to us. The reason is simple: we do not see the change years and years after we pick up the trashes and turn off the lights. What is distinctly different on the case of the pandemic is that our families or ourselves might lose lives tomorrow. This is a visible, urgent threat forcing 7 billion people on earth to suffer equally for the first time in our living history.

How can we evade the crisis of life caused by the pandemic? When we trace back the history of mankind overcoming survival threats, they have always been associated with the development of technology. Modern society is structured in favour of the West, deriving from the fact that their scientific technologies have contributed to the development of human civilization at larger extent than any other. This is necessarily so because the arithmetic system that laid the foundations for those technologies are the creations of the West. These facts prove straight that who takes control of the protocol for scientific technology — and the mathematic protocol under them — reigns the world. However, we have finally hit the deadlock with the current way the world is governed; the pandemic is out of control especially in the Western countries that have been in charge of the protocol-making and its administration, and we have not received any specific suggestions for

breakthroughs from the UN yet. The mathematical protocol that reigns the world in the modern society is not comprehensive enough to keep up with the reality of the world because they leave out most of the factors that need to be included to represent it. Radical renovation of the protocol is required for the stagnating world to make a leap forward. The seed of the innovation is actually about to bloom up in Japan.

This paper's ultimate purpose is to make a solid proposal towards the UN to transform into a World Federation that operates based on the new protocol that is more accurately representative of each member of the global community while pointing out the flawed nature of modern arithmetical system, which has divided the society.

2. “Technological Incompleteness” of the 21st Century

In the process of social evolution to a hunter-gatherer society, to a simple agricultural society, to a developed agricultural society, to an industrial society and then to a modern digital society, there have invariably been the presence of technological innovations. They happen through scientific breakthroughs. The origin of human civilization was the use of fire. This was actually one of the most revolutionary technologies in human history as it largely diversified human cuisine and

(Image 1 – image of human's first use of fire)



(Source: Indus Scrolls¹)

lowered health risks. The spinning machine created by the English spinner, Samuel Crompton², in 1779 enabled twisting of natural fibres into bundles of yarns and simplified factory labour, which had eventually contributed to the Industrial Revolution. Also in the same century, French Army lieutenant, Nicolas-Joseph Cugnot³ gave birth to the first steam-powered vehicle, which then evolved to electric and gasoline automobiles. Economic activities gained speed and intensity due to the updated human transportation. Airplanes invented by the American Wright Brothers had

¹ <https://indusscrolls.com/fire-was-first-used-in-india-30000-years-ago-scientists-find-evidence/>

² <https://spartacus-educational.com/SCcrompton.htm>

³ <https://www.uh.edu/engines/epi1596.htm#:~:text=The%20earliest%20steam%2Dpowered%20car,by%20springs%20and%20compressed%20air.>

promoted international trade. The Internet had radically changed the concept of time and space. Looking back on historical evolution of civilization, we can see that it has always been supported by technological innovations that transformed human behaviour, which resultingly transformed societies per se.

(Image 2 – Inventors of flying vehicles: Orville Wright (left), Wilbur Wright (right))



(Source: BIOGRAPHY⁴)

The point is, however, not to confirm our recognition on the presence of technological inventions at the corner of every history evolution, but to pay recognition to the fact that the core of technology is mathematics. When fire burns, there is a chain of chemical reactions: $\text{CH}_4 + 2\text{O}_2 \rightarrow \text{CO}_2 + 2\text{H}_2\text{O}$. Chemical reactions converge down to mathematical formula; they are basically grouping and adding of atoms in the right ratios that form up to make fixed models of particles, which are interchangeable. Chemistry is arithmetic expression of reactions. In other words, every reaction that occurs on the planet can be calculated with numbers. Fixed numerical rules allow this transformation to occur. Same goes for physics. Physics is arithmetic expression of natural phenomenon all of which is associated with movement such as lightening, wind breeze, heat energy, wave, speed, gravity, and so on. Vehicles and machines are proportionately structured according to the law of physics to make the right movement for preferrable output. Finally, IT engineering is coding – identifying and classifying words, letters, figures, or symbols in order to set up a program. Robots make similar actions as humans do since human tendencies are embodied in codes and programmed into their mechanical bodies, which implies that even the most ambivalent matters such as human emotions can be described in some extent of regularity. Everything with patterns fall into science, and science is based on mathematics.

If we postulate technology as the power to artificially control the nature to achieve some sort of goals, scientists have to find the mathematical laws that govern the nature: how many certain atoms to combine to generate certain reactions, and how big a machine should be structured or how far does its arm should move to create something we want exactly in the right scale. With the understanding of the golden numbers that make chemistry and physics happen by manpower, they

⁴ <https://www.biography.com/news/orville-wilbur-wright-brothers-first-flight>

(Image 3 – image of coding)



(Source: Forbes⁵)

(Image 4 – the humanoid robot Pepper)



(Source: IT Media Business⁶)

manipulate the composition of what are available in the nature – light, waves, atoms, gravity, and etc., all of which can be counted — and create products for humans to use in their convenience. Mathematics is the mechanism that governs the order of basically everything.

As you can see, each piece of technology that exists in the world is based on either/both chemistry or/and physics whose foundations are mathematics. Technology is the recipe for engineering. As a result of engineering, products are born. People use those products, gradually to be taken into their lifestyles and form their behaviour. Humans behave differently then, and they start thinking differently. If people start to think in different ways, the society as a whole follow along, and eventually new social institutions are built. These are how societies have been established historically, also indicating that we can repeat this process and transform societies by transforming technologies through the introduction of a new set of mathematical protocols.

There is a critical flaw in the protocols used today, and it is actually why humanity is reaching its limitation to overcome the challenges it faces today, be it health issues or geopolitical risks. Calculations, in the large framework, are done through four arithmetic operations – addition, subtraction, multiplication, and division. In this paper, we would pay special attention to addition and division as we make a claim that their ‘incompleteness’ is causing the ‘incompleteness’ of modern technology. The origin of addition traces back to the year of 1489, when a German mathematician, Johanness Widmann used the symbols ‘+’ and ‘-’ in his commercial arithmetic textbook, to express excess and shortage. It was the work of a Dutch mathematician, Giel Vander Hoecke, in 1514 that developed the concepts to addition and subtraction. In terms of the division, its first appearance has been debated to be in Switzerland or England in the 17th century. Yet, the person who have made the division widely available for the public is known to be Isaac Newton. It is noticeable that all of the pioneers in mathematics are from Europe whose findings have been applied

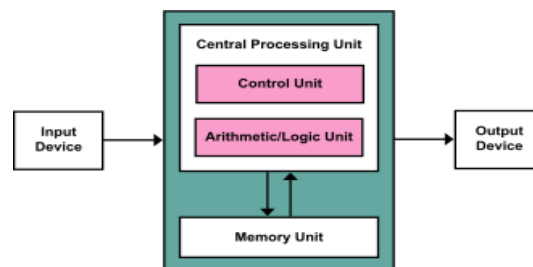
⁵ <https://www.forbes.com/sites/forbestechcouncil/2019/02/22/want-to-learn-coding-check-out-these-resources-recommended-by-tech-experts/?sh=6fa1f75f5d6f>

⁶ <https://www.itmedia.co.jp/makoto/articles/1406/11/news096.html>

to technologies by themselves or the United States. Modern science that has founded modern civilization actually belongs to the West. To sum up, we operate on the Western protocol.

As explained previously, technology is the basis of the products we use in our daily lives, which are the basis of human behaviour and thinking, and thus, modern scientific standard is the most basic standard that frame our societies. However, that standard is meeting its limitation. Computers are not getting faster anymore. Most of the computers produced today is composed of

(Image 5 – von Neumann architecture)



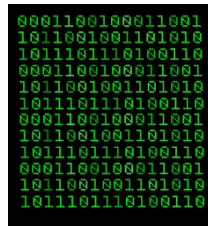
(Source: Wikipedia⁷)

von Neumann architecture, which accumulates external data in the Central Processing Unit (CPU), and reads and executes those data one by one, as referred to in Image 5. The major characteristics of *Neumann* computers are— stored program and binary system. To explain how it works, the Input Device takes in data from outside. The Control Unit regulates the input and the output data. The Arithmetic/Logic unit does the calculation. The Memory Unit saves data internally. At last, the Output Device executes the data accordingly. These procedures expressed as the stored program had enhanced the speed of calculation of data and significantly contributed to the development of software. However, data had to be minimized and simplified for the CPU to read and execute them properly and speedily; for that purpose, the binary system — namely “the *Boolean* algebra”— were put into place, and boldly classified variables into either *truth* or *false*, usually denoted 1 and 0 respectively⁸. Computers are equipment to process information on behalf of humans. Without the *Boolean* algebra, computers would be overwhelmed by an otherwise huge amount of information that are too complicated to digest, and does not perform to satisfaction. Due to the binary system, the information computers had to deal with ended up in merely two numbers. And those two numbers were sorted according to the logical operations that employed only three types of distinctions — conjunction (and), disjunction (or), and negation (not). When conjunction is employed, both of the two numbers are true. When disjunction is employed, only one of them is true. When negation is employed, only one of the numbers is operated and it is inverted (truth turns to false, vice versa). Computers, when they first appeared, were called

⁷ https://en.wikipedia.org/wiki/Von_Neumann_architecture

⁸ SUGIMOTO, Mai. 『「人口知能」前夜 (“The Night Before `Huma Intelligence`)”』, published by Seidosha in 2018, p.109-146.

(Image 6 – the image of numbers expressed in binary)

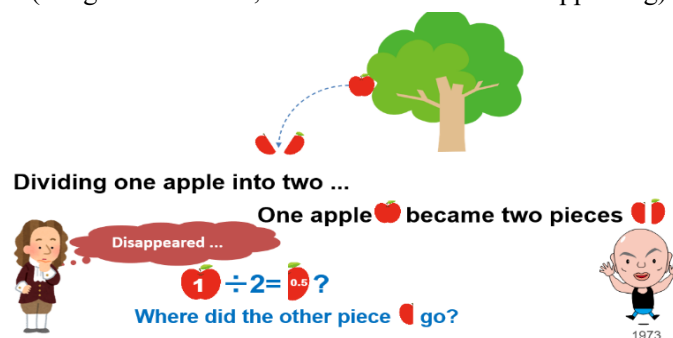


(Source: Wikipedia⁹)

“Electric Calculators” for their inherent function¹⁰. For such machines to do better jobs, they have to repeat these operations as fast as they can to take in more data for performing more accurate calculations to improve the quality of the output.

The problem is that *Neumann* computers does not have the structural capacity to get any faster, and that is one of the biggest concerns to the West since it is this piece of device that has been securing American mega-firms like *Microsoft* and *Apples*’ share in the global market up to date. The CPU is expected to achieve maximum sophistication within ten years¹¹. Further speed-up is structurally impossible due to the rule of *Boolean* algebra: anything unconvertible to either 0 or 1 are not taken into account, although in reality, there are numerous numbers of numerous combinations and proportions in between the two. In the first place, the mathematical operators invented in the West are structured as not to embrace ambiguity for the sake of clarity and efficiency. For example, in the calculation of $1 \div 2 = 0.5$, the other 0.5 automatically disappears, and its existence has never been validly proved. But what happens in reality is much different: As Image 7 illustrates, when, for example, an apple randomly falls down from a tree and split into two, their sizes are not equally

(Image 7 – $1 \div 2 = 0.5$, the other divided half disappearing)



(Source: presentation by Shunji MITSUYOSHI¹²)

⁹ <https://ja.wikipedia.org/wiki/%E4%BA%8C%E9%80%B2%E6%B3%95>

¹⁰ SUGIMOTO, Mai. 『「人口知能」前夜 (“The Night Before ‘Huma Intelligence’)”』, published by Seidosha in 2018, p.109-146.

¹¹ <https://toyokeizai.net/articles/-/185506>

¹² Illustrated by MITSUYOSHI, Shunji. The University of Tokyo, Graduate School of Engineering, Department of Bioengineering, Mathematical Engineering of Morality Emotions.

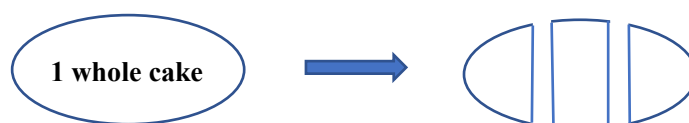
identical and the other half stays around but it does not. The modern mathematical protocol is structurally incapable of capturing phenomena comprehensively, and thus, is defected by nature in terms of actuality. Therefore, they are fundamentally 'incomplete,' so is modern scientific technology. Today's science is not capable of solving humanity issues, and necessarily so due to its flawed structure. The real world is not black and white, but in fact, a series of multiple colours in between. Only when even the ambiguous factors are counted in, society becomes inclusive for all, in true sense. With current scientific standard, our society is structurally exclusive.

How can AI cover all human needs without reflecting everything that they experience? The pursuit of faster *Neumann* computers is coming to an end, which is equivalent to the end of scientific development. The reality we face in pandemic — the spread of the COVID-19 virus unnoticed before it gets too widespread, slower development of vaccines than the rise of variants, and not having any idea for next-moves but to stay home — all derive back to *Neumann* computers failing to calculate as fast as it should to keep up with the real world. For their attempt to take in more amount of data for output improvement, more CPUs have to be equipped, but they emit too much heat for the hardware to endure. With that understanding, quantum computers that are said to be a hundred times¹³ faster are being developed, yet their commercialization may take about 20 years¹⁴ from now. Surprisingly, however, super-computers hundreds or even thousands of times faster than *Neumann* computers are about to be born in Japan that will totally transform the global community by possibly overcoming its exclusive nature.

3. Mathematical Operators to Save the World

I would like to specifically highlight the studies of the MITSUYOSHI Lab at the University of Tokyo (Japan) that researches and experiments mathematical engineering of morality emotions, that are about to transform the modern scientific standard and to revolutionize global society, possibly in a couple of years. They have invented a mathematical operator, namely “MITSUYOSHI Operator” symbolized as Image 8, that has overcome the flaws of the arithmetic operators, especially addition and division. MITSUYOSHI Operator is intended to make war-less society that “leaves no one behind” as the SDGs vow.

MITSUYOSHI Operator succeeded in reflecting continuity on mathematical calculations, which used to employ discrete, “digital” counting method. In the common sense today, $1+1+1=3$. But how does this calculation explain the phenomenon as the next image illustrates?



¹³ <https://japan.zdnet.com/article/35166112/>

¹⁴ <https://www.asahi.com/articles/ASMCW5GBDMCWULBJ00F.html>

If person A, B and C want to share the cake and attempt to divide it into 3 pieces, can each of them have an equal share? No, because under current mathematical protocol, the calculation will be:

$$1 \div 3 = 0.3333 \dots$$

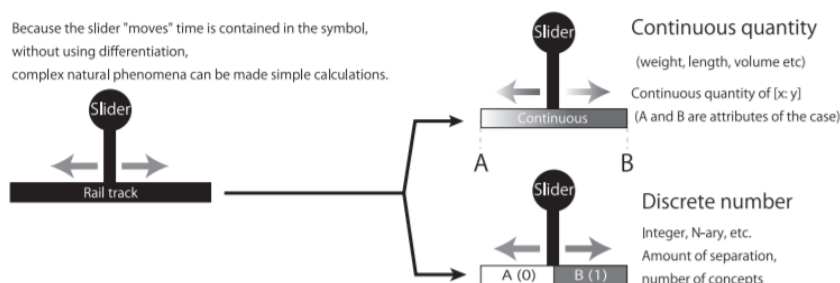
No matter in what manner we split the cake, we cannot achieve equality. Yet, the additional equation presents the otherwise — three pieces end up being represented in equal amounts:

$$1 \text{ piece} + 1 \text{ piece} + 1 \text{ piece} = 3 \text{ pieces}$$

Now the fact is distorted. Today's arithmetic operators we use are structurally unable to dissolve the contradiction between the reality and the numerical equation. However, MITSUYOSHI Operator can.

(Image 8 – Symbol of MITSUYOSHI Operator)

Figure 14: Concept of the simultaneous calculation and computation of continuous and discrete quantities



(Source: excerpt from an academic paper¹⁵ authored by MITSUYOSHI Lab)

As referred to in Image 8, the symbol of MITSUYOSHI Operator is composed of a slider and a rail track to represent motion between 0 and 1. Conventionally, counting was “digital,” which originates from a Latin word, “*digitus*” meaning “fingers.” People often use fingers to count, but they can only count discrete numbers and thus, “digital” is understood as dealing with only 0 and 1. *Neumann* computers are called *digital computers* for their binary system. On the other hand, “analogue” originating from a Greek word, “*αναλογία*” meaning “proportion”, takes into account continuous quantity. “Analogue” handles data in between 0 and 1 (i.e., 0.3333...), and replaces them with another simpler continuous number (i.e., 0.34). For example, analogue watches use clock hands to point to 1 second, 10 minutes, 0.0005 seconds or any numbers that time entails. Therefore, “analogue” is known to deal with more amount of information than “digital.”¹⁶ Furthermore, “digital” has automatically flipped out outliers because they skew the data to a large extent and were assumed to reduce its regularity. But again, nobody has expected the pandemic to skew their lifestyles before occurring, and having been able to predict it could have saved lives. Spotting and considering irregularity are in fact more valuable than finding the regular.

¹⁵ MITSUYOSHI, Shunji. TOMONAGA, Kosuke. HASHIMOTO, Masatsugu. TEI, Yuichi. NAKAMURA, Tadao. “Some hypothesis to derive an anti-Einstein field,” DHU JOURNAL Vol.06 2019, p9.

¹⁶ <https://data.wingarc.com/digital-and-analog-11490>

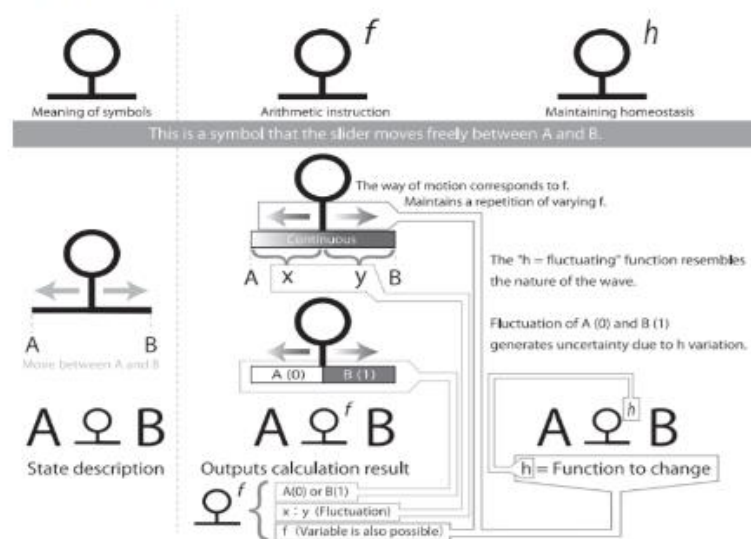
MITSUYOSHI Operator, with its slider, can manoeuvre itself on any “analogue” spectrum, even including the outliers, on the rail track with “digital” points at both edges. So, rather than $1+1+1$, the 3 pieces of cake can instead be illustrated as:

piece Ω piece Ω piece

This new equation allows the 3 pieces of cake to each embody different sizes, which is actually closer to the real picture. They are not necessarily $x=y=z$, but can have each different ratios, $x:y:z$, representing both digital and analogue.

(Image 9 – Definition of MITSUYOSHI Operator)

Table 2: Definition of Mitsuyoshi operator



(Source: excerpt from an academic paper¹⁷ authored by MITSUYOSHI Lab.)

However, if we are constrained by the rule of division ($\div$), we cannot achieve the results above, so MITSUYOSHI replaced it with another new operator, “cut” converting the divisional procedure into action, which can represent random splits such as an apple falling to the ground and broken into two pieces (Image 7, page6), whose ratios are not necessarily equal as demonstrated below:

$$\text{apple} \text{ cut } 2 = \text{two pieces}$$

The conventional method of calculation describes this phenomenon as below:

$$1 \div 2 = 0.5$$

This is far from reality because it obviously does not depict the other half that is supposed to exist. The cut operation is free from the restrictions casted on division, so the result of cutting may turn out

¹⁷ MITSUYOSHI, Shunji. TOMONAGA, Kosuke. HASHIMOTO, Masatsugu. TEI, Yuichi. NAKAMURA, Tadao. “Some hypothesis to derive an anti-Einstein field,” DHU JOURNAL Vol.06 2019, p10.

to be in any ratio in-between 0 and 1, which MITSUYOSHI named “*Dosan* (動算, mathematics of motion)”. To sum up and go back to the issue of the cake shared by 3 persons, MITSUYOSHI Operators replace division ($\div$) and addition (+) with cutting operator and *Dosan*¹⁸ respectively so that, rather than pursuing roughly equal quotients, the real situation comes to life in the equation:

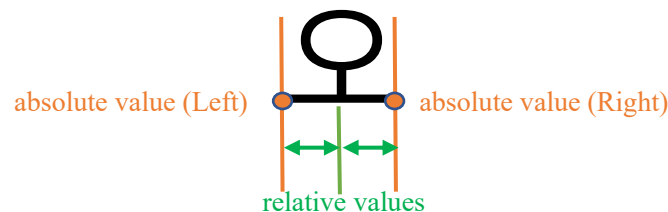
$$\text{cake cut } 3 = \text{piece } \oslash \text{ piece } \oslash \text{ piece}$$

Boy A might be a big-eater, so he might have the biggest share; Girl B may be on a diet, so she may want the smallest piece; and genderless C might not mind what size of the piece he would get. This is a little example of how the world works, but *Neumann* computers have failed to reflect such reality in their CPUs; they do not take numerous combinations of factors that actually affect human decision-making into calculation, so artificial intelligence cannot ever accurately represent human emotions.

But the MITSUYOSHI Lab is coming close to implementing Artificial Ego (AE) in machinery by integrating their unique operators into the CPU. MITSUYOSHI Operators can overcome the digital structure of *Neumann* computers that forcibly gets rid of factors that do not fit into 0 or/and 1 for the sake of extreme simplification of data. Because the new mathematical protocol includes everything that *Boolean* algebra has eliminated, the new CPU will be reading incomparably bigger amount of information at incomparably higher speed, which means it will be doing both digital and analogue work, increasingly resembling the work of a human brain. Computers will be able to handle concepts for the first time in human history since *Dosan*'s only rule is having the ending points on the far left and right of the rail track; as long as it operates on that, it can enjoy unrestricted mobility, and so as the equation shows below, the Left and the Right may as well stand for concepts (although they will be symbolized by numerical values in the process of calculation).

$$1 \text{ cut } 2 = \text{Left } \oslash \text{ Right}$$

Dosan's rule implicates that there are absolute and relative values on the rail track:



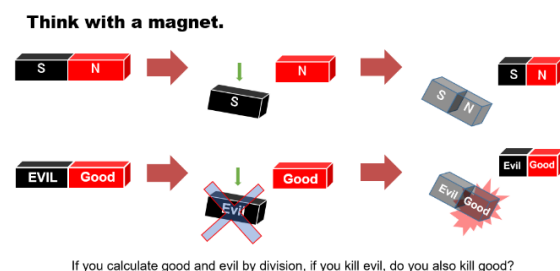
The orange, “absolute values” on the ending points of both edges represent 0 and 1, black and white, evil and good, true or false, right or wrong, or any other extreme definitions. The green, “relative

¹⁸ MITSUYOSHI, Shunji. “MITSUYOSHI Operator $\oslash$ Yamato Arithmetic,” p43.

values” are everything that is less than 100%. To use the black and white spectrum, all the relative values are grey but with different density: the central axis representing the complete neutral, blacker to the left and whiter to the right. *Dosan*'s significance lies in its capability to reflect ambiguity that is characteristic to human's analogue thinking and to enable computers to process concepts.

It is common for people to describe their political positions as left or right, referring themselves as a group of people who seek social justice through redistributive social and economic policies or a group of people who defend private property and capitalism, respectively¹⁹. There are some extremists, but human-decisions are influenced by multiple factors and highly circumstance-dependent, and so no one will act the same way 10 times out of 10. Even under the law of physics, magnets with only the north or the south pole do not exist.²⁰ The source of magnetic force is electron; electrons are the tiniest magnet present with both poles. A bunch of electrons positioned to north and south accordingly makes a magnet. Electrons cannot be cut down any smaller, so there is no single magnet in the world without the opposite poles. Like in Image 10, even if we divide a magnet into N and S and repeat this procedure until it is reduced to the minimum size, we can never obtain a magnet that does not contain both N and S. This law applies to humans as well. Nobody is

(Image 10 – magnets containing both poles even after divided into S and N)



(Source: presentation by Shunji MITSUYOSHI²¹)

entirely good or entirely bad. We own both elements; larger ratio of either is withdrawn under certain situations. Humans as mammals are built to share the same nature: we are made to pursue an environment that guarantees our survival, which generates our desire for peace and happiness, although their definitions attribute to individuals. The perception of allies and enemies are artificial creations. They tend to be race, nationalities, ethnicities, and cultures. We forget that we are ultimately pursuing the same thing because we are blinded by such differences. If MITSUYOSHI Operator reaches the stage of wide social implementation, computers exceed the speed of reality and get us solutions to problems that have not even occurred yet. More importantly, technologies and

¹⁹ <https://time.com/5673239/left-right-politics-origins/>

²⁰ https://www.magnetics.jp/tech-info/b_magnet/

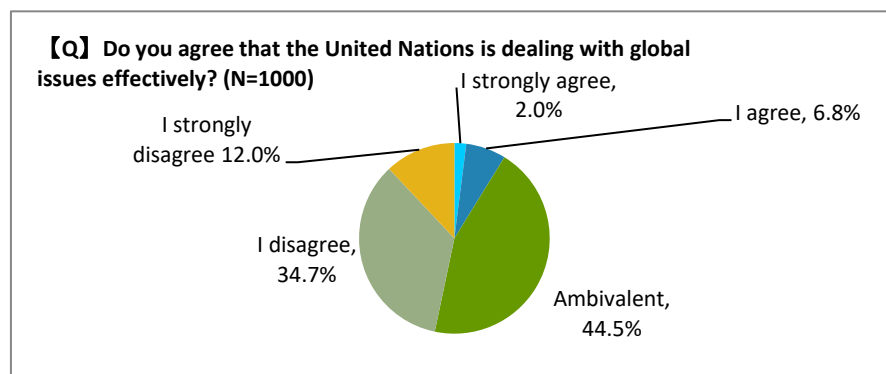
²¹ Illustrated by MITSUYOSHI, Shunji. The University of Tokyo, Graduate School of Engineering, Department of Bioengineering, Mathematical Engineering of Morality Emotions.

societies built on MITSUYOSHI operators are better able to adjust to diverse human needs. Today, we operate on social institutions that define “inclusiveness” as “treating everyone equally”. This definition has torn humanity apart because we are not 0 or 1. Truly inclusive society unites humans under their absolute values and embraces relative values. In the next section, we propose the formation of universal governance under the same protocol (absolute) to bind global community in limited cases that threaten the well-being of humanity while securing freedom for each state to enforce its own governance system (relative).

4. Proposal to the UN towards UN100th (the World Federation)

Is the UN dealing with global issues effectively? RIJAG's sister organization has done public opinion polls targeting 1,000 men and women between 16 to 60 years olds across Japan who categorize themselves to be highly conscious of social problems. To our surprise, only 8.8% specifically agreed with the statement:

(Image 11 – public opinion towards the effectiveness of the UN)



(Source: result of social report uniquely done by IISIA²²)

In 1944, representatives from China, the (then) Soviet Union, Britain, and the US gathered in Washington D.C. to discuss what the UN Charter should look like, which was officially signed the year after with solid determination to put a period on the misery of war. 75 years since then, we have not yet accomplished it. RIJAG believes that there are two primary limitations to overcome for the UN to become a truly inclusive and effective institution: obsolescence and exclusiveness.

In 2021, the UN still operates on the basis of the same UN charter that came into effect back in 1945. As of precedence, there have been three revisions whose scopes of change were limited such as to the number of the council members and the number of votes for holding a meeting

²² Institute for International Strategy and Information Analysis, Inc. (IISIA, Tokyo)

(Image 12 – The Charter for the United Nations is signed in San Francisco, 1945)



(Source: Bowie News²³)

for redeliberation of the Charter, none of them drastic enough to get in line with global trends²⁴. We have to recognize that the UN, the sole international organization in charge of global governance so far, is still running on the rail built right after the World War II that does not get updated like our society does. Our society is so much different from 75 years ago, which explains why the US system is too obsolete to give persuasive answers to voices of today.

Lack of faith in the UN is also attributed to its exclusive administration. Regardless of how it advocates to be inclusive, the UN Charter that it operates on are written by four major countries. Moreover, the UN's budget is adopted every two years by the permanent member countries (China, France, Russia, Britain, the US) of the UN General Assembly²⁵. The budgets, on practical terms, are the UN agenda. Money is placed on projects to solve problems that they care about. The UN budget derives from the shared expenses by its 196 member countries²⁶. Yet, what to use those expenses for are call of the permanent member countries. The output of such system is never free from bias, which is why the UN is struggling to achieve inclusiveness and it will continue to unless brand new system comes into place.

RIJAG proposes the UN's transformation into the World Federation (WF) capable of enforcing absolute sovereignty over all states on certain limited areas while allowing freedom of sovereignty for the rest, assuring respect for relative values. Global governance should outpace state sovereignty when the physical security of humanity is endangered by factors like armed conflicts, environmental destruction, and pandemic. For the UN to acquire the capacity to make swift and effective interventions in the face of such urgent risks, it should own sufficient internal revenue source that derives from international solidarity levy collected from all governments, businesses and

²³ <http://bowienewsonline.com/2017/06/1945-u-n-charter-is-signed/>

²⁴ <https://www.unic.or.jp/info/un/charter/amendment/>

²⁵ https://www.unic.or.jp/info/un/un_organization/budget/

²⁶ <https://www.mofa.go.jp/mofaj/area/world.html#:~:text=196%E3%81%8B%E5%9B%BD%E3%81%A7%E3%81%99%E3%80%82%E6%97%A5%E3%82%92%E6%89%BF%E8%AA%8D%E3%81%97%E3%81%BE%E3%81%97%E3%81%9F%E3%80%82>

individuals on earth under the belief that physical security is the utmost priority for all and none of us should be exempt from the responsibility to protect it. Truly inclusive society is not supposed to only encourage individuals to pursue equal rights but to do so by means of pursuing equal responsibilities for the total good (although the degree of such responsibilities must be fairly assigned according to each state's economic power). Accordingly, the UN Charter must be rewritten to empower the UN to secure superiority of sovereignty over state sovereignty and break free from its bureaucratic decision-making procedure only in the limited cases of outbreak of human security emergencies and collect taxes from all the involved-parties for that purpose specifically, so that it will have access to adequate financial source on its own for flexible and effective use. When our own money is at stake, we make the best effort possible to achieve desirable outcome and start thinking which areas of global issues really deserve to be invested. Consequently, every shareholder will be involved in agenda-setting, which is more inclusive than the current system where only 1/40th of the member countries are entitled to decision-making.

The WF Movement (WFM) has been around since 1947, soon after the establishment of the UN, now grown into a global level initiative involving organizations from 60 countries with a headquarter in New York²⁷. In its first world congress taken place in Montreux in Swiss, Montreux Declaration composed of 6 fundamental principles was announced²⁸:

- 1). Universal membership: The world federal government must be open to all peoples and nations.
- 2). Limitation of national sovereignty, and the transfer to the world federal government of such legislative, executive and judicial powers as relate to the world affairs.
- 3). Enforcement of world law directly on the individual whoever or wherever he may be, within the jurisdiction of the world federal government: guarantee of the rights of man and suppression of all attempts against the security of the federation.
- 4). Creation of supranational armed forces capable of guaranteeing the security of the world federal government and of its member states. Disarmament of member nations to the level of their internal policing requirements.
- 5). Ownership and control by the world federal government of atomic development and of other scientific discoveries capable of mass destruction.

The WFM aspires to integrate all nations into a single world state (one-world) under the single world government, transferring the UN membership from nations to individuals and securing each state a degree of independence. This philosophy of protecting peace and human rights in the framework of one order has been advocated much before the WFM such as by Immanuel Kant for establishing the system of international collective security as articulated in his authorized book, “Zum Ewigen Frieden (For Eternal Peace)²⁹.” As a matter of fact, lack of faith in the UN has been present since its

²⁷ <http://www.wfmjapan.org/005/index.html>

²⁸ https://www.cvce.eu/en/obj/the_montreux_declaration_23_august_1947-en-adf279f7-80a4-4855-9215-48a5184328aa.html

²⁹ <http://www.wfdeclarelg.org/history.html>

birth upon the trigger of Hiroshima and Nagasaki atomic-bombing that occurred just in two weeks after the UN establishment, which proved itself to be a mere symbol rather than an effective authoritative institution. We have seen too many human disasters since then to know that a union of sovereign states as the UN is an incomplete system to maintain global peace.

Unless the world breaks free from the vested interest structure of divided states operating on each different rule, conflict of interest will be the eternal nature of international society. Just like today's arithmetic system treats the excluded half uncared, our societies have been excluding what must have been counted in. RIJAG believes that the WF we propose must stand on the governing principle based on MITSUYOSHI Operator with absolute and relative values, where the absolute one lies in the protection of human security and the relative ones overarch everything that each state has embraced. We cut the world into the West, the East, the developed and the developing failing to see the absolute value we share. The WF must be able to enforce absolute sovereignty whose efficacy exceeds those of nation states and be equipped with the ability to tax all parties that are supposed to take charge of global issues. Having its own financial pool that does not only represent the interest of the UN General Assembly but represents every will of humanity, the new UN will have its own capacity to intervene in global issues that threaten our dignity and turn into an organization that is truly committed to the peace and the well-being of the global community, the ultimate wish we have in common. RIJAG believes that Japan will be the starting point of the global transformation as MITSUYOSHI Operator will redefine the concept of "inclusiveness."

5. Conclusion — To "Leave No One Behind"

In the era of modern civilization established by the protocol of the West-invented scientific technology, capitalism grew up to be the absolute justice that have divided the society into "the Haves" and "the Don't Haves". Socio-economic division of humanity resulted in the wrong definition of "inclusiveness" that we all desire wealth for our happiness and the fight for wealth became an ironic cause for humanity to fight each other. However, the COVID-19 rendered money into nothing in the face of physical security risk as "the Haves" were no exception to "the new normal". This is the opportunity for us to fundamentally change. The key to fixing such global division is the renovated mathematical protocol to overcome the structural flaw of the modern scientific standard and social institutions. Hereby, we propose a new global order under the WF where MITSUYOSHI Operator is employed as their protocol to implement scientific breakthroughs and truly inclusive governing law.

