

# DHAMMA - FOR THE 4TH INDUSTRIAL REVOLUTION

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I am responding to the Most Ven. Dr. Thich Nhat Tu's invitation to send a contribution on the given subtheme of **Buddhism and the Fourth Industrial Revolution**. Though I am no expert on Buddhism or a scholar on Industrial Revolutions, I accepted this invitation extended to me as a practitioner of Buddha's teaching since my childhood. Besides, the Sarvodaya Shramadana Movement we started six decades ago in 1958, attempted to apply Buddhism to find solutions to modern day social, political and economic issues.

I was fortunate to be born into a family of Buddhists. In my country Sri Lanka, we had inherited a culture that dates back to over two thousand six hundred years. My parents, specially my mother, were my primary educators to introduce age-old traditional Buddhist ideals to us. Later these values were inculcated into our personalities as life-long practices applicable to every moment of living by the learned and virtuous monks of our village temple and the school teachers.

It may be appropriate to mention one of those lessons I learnt at this point. A mosquito may land on my left hand and its bite hurts me. My right hand alights on the mosquito spontaneously. My mother sees my reaction. She calls me lovingly and makes me sit on her lap and begins to talk. "My son, look at the size of this mosquito. So tiny, you even can't see it easily. Imagine how small his brain is. Imagine how big you are and your brain compared to the mosquito. The poor pest hasn't got a developed mind to understand that it

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hurts you. In your case you have a very advanced mind. So, my son, remember, never to hurt even a mosquito.”

This is how my mother taught me the first precept of “Abstinence from Killing” and the *supremacy of the human mind*. It also should be mentioned that respect for all life and the importance of safeguarding the entire living world was inculcated into our consciousness at that blooming age. Similarly we learnt about the other four precepts, namely, Abstinence from Stealing, Sexual Misconduct, Speaking Untruth and Consuming Intoxicants and many other lessons while we were still children. In Buddhism we call these Five Precepts *Pancha Sila* which is the bare minimum of moral principles needed for the progress of a civilized and peaceful society. My personal belief is that it is the non-adherence to this bare minimum of moral principles by leaders at local, national and international levels which has led to the misery, conflicts and chaos of today’s world..

*Panca Sila* is the bare minimum of Buddhist practice for lay disciples. Building on the *Panca Sila*, Buddhism indicates a very clear program not only for the further development of individuals, but also for the “welfare of the many” and the material development of individuals, families, groups, organizations and states. One is free to choose the path one may take at a pace one may also choose. Though there are many possible paths, all of them can be subsumed under three main teachings of the Buddha. They are as follow:

The four noble truths (chaturaryasatya)

The noble eightfold path (aryaastangikamarga)

The theory of dependent origination (paticca samuppada dhamma)

Looking at the past, the present and considering the future of the world I do not think that there is any scientific discovery or technological innovation done during the last 2 600 years comparable to the enunciation and exposition of the above teachings. Please allow me to expand on the above salient teachings for the benefit of those who may not be Buddhists.

## 1. THE FOUR NOBLE TRUTHS

The Four Noble Truths constitute the Buddhist analysis of life.

It reveals the real status of life as “being unsatisfactory” in that whoever we are, we are subject to illness, decay, death, separation from loved ones, association with those whom we dislike, etc. No one is exempt from this, neither the richest nor the poorest, neither the most powerful nor the weakest, etc. This is the First Noble Truth in brief. Buddhists refer to this as the ***Noble Truth of Suffering***.

The Second Noble Truth states the Cause for this “unsatisfactory state”. It is not due to any materialistic, or physical reason outside of “us”, but due to the operation of “Greed”, “Hatred” and “Ignorance” within “us”. The “ignorance” referred to is the ignorance of the “Four Noble Truths.” Buddhists refer to this as the ***Noble Truth of the Cause of Suffering***.

The Third Noble Truth gives hope to one in that it states that it is possible to escape this recurring cycle of “being unsatisfactory”. Buddhists refer to this as the ***Noble Truth of the Eradication of Suffering***.

The Fourth Noble Truth indicates the path one should take to permanently leave this “unsatisfactory state”. This path is the Noble Eightfold Path. Buddhists refer to this as ***The noble eightfold path***. This is a path which is open to any human being to follow ***Noble Truth of the Path to the Eradication of Suffering***. Many in this audience and outside are most certainly following this path either knowingly or unknowingly. Many who followed this Path in the Buddha’s time were not Buddhists as such. The Path is best understood in three segments as follows.

*Right Speech, Right Endeavour, Right Livelihood (Abstaining from all evils), which leads to Right Effort, Right Mindfulness, Right , Concentration ( Cultivating the good) which leads to Right View and Right Understanding.*

## 2. THE THEORY OF DEPENDENT ORIGINATION (PATTICCA SAMMUPPADA DHAMMA)

The Noble Eightfold Path is the one to be followed diligently by any one who wishes to be free from this “unsatisfactory state” or suffering. But this is exactly what many of us fail to do. We know what is “right” but most of the time we do what is “not right”. What we practice is not the Noble Eightfold Path but its opposite, namely, the Ignoble Eightfold Path of Wrong Speech, Wrong Endeavour, Wrong Livelihood, Wrong Effort, Wrong Mindfulness, Wrong Concentration, Wrong View and Wrong Understanding.

In the theory of Dependent Origination, the Buddha provides an explanation of how this can happen. If we know “how”, then we have the potential to arrest the operation of the Ignoble Eightfold Path and get on to the Noble Eightfold Path, not all at once but gradually.

The theory of Dependent Origination is a chain of twelve factors with each factor building on the previous one for its existence, hence the name “Dependent Origination”. Each one of the twelve links, starting with **IGNORANCE** and ending with **SUFFERING** is necessary for the subsequent one to exist. If **IGNORANCE** is eliminated then each subsequent factor is also eliminated ending in the elimination of **SUFFERING**.

*IGNORANCE (Avijja) is ignorance of impermanence, suffering and non-self (Anicca, Dukka, Anatta) which leads to volitional formations (Sankhara), leading to consciousness (Vinnana), leading to name and form (Namarupa), leading to six sensory organs (Salayathana), leading to contact (Passa), leading to (Vedana), leading to craving (Thanha), leading to clinging (Upadana), leading to cycle of births and deaths (Bhava), leading to birth (Jathi), leading to old age, disease and death etc. (Jara, Marana, Soka, Parideva, Dukka, Domanassa).*

*Avijja* is a distorted understanding of how things work; a delusion arising from the operation of the Five Hindrances (*PancaNivarana*), which are Desire for Sense Objects (*Kamachchanda*), Ill Will (*Vyapada*), Sloth and Torpor (*Tina, Midda*), (*UddaccaKukkuka*), Doubt (*Vici kicca*). If the Hindrances are weakened, the lesser is the Suffering.

Having very concisely introduced certain basic principles of

Buddhist teachings we follow, let me now turn to the ***Fourth Industrial Revolution*** and how it could be related to Buddhism in view of Global Leadership and Shared Responsibilities for Sustainable Societies which is the main theme of this conference.

The phrase ***Fourth Industrial Revolution*** was introduced by Klaus Schwab, the Executive Chairman of the World Economic Forum based in Davos-Klosters, Switzerland, in 2015. In October 2016 at a meeting of the Forum it was decided to open a center in San Francisco to serve as a platform for interaction, insight and impact on the scientific and technological changes that are changing the way we live, work and relate to one another. This is a welcome opportunity for Buddhist Scholars and leaders to actively participate in shaping the direction the Fourth Industrial Revolution should take. This opportunity should not be missed by leaders of nations such as India, Pakistan, Sri Lanka, Nepal, Thailand, Laos, Vietnam, Cambodia, China and Japan who have inherited a Buddhist culture. They should guide those at the San Francisco Center to follow the Buddhist path to Global Leadership, Shared Responsibilities and Sustainable Societies by developing and applying appropriate and relevant technologies that are harmless. In the words of Schwab himself, “There has never been a time of greater promise, or one of greater potential peril.”

From the 18<sup>th</sup> to 19<sup>th</sup> centuries in Europe and North America mostly agrarian and rural societies got transformed into industrial and urban societies. The main roles were played by steam and water power and iron and textile industries. This was the First Industrial Revolution. During the last three decades of the Nineteenth Century and the first two decades of the Twentieth Century use of electricity for mass scale production in existing industries as well as new ones such as steel and oil heralded the Second Industrial Revolution. It was during this period that major technological advances were made for wide use of telephones, phonograph, electric lighting and internal combustion engines. The Third Industrial Revolution began around 1980s with digital technology and continues to this day. It is during this period that we started using personal computers, internet, and information and communication technologies.

The Fourth Industrial Revolution, according to Schwab and others is being built on the Digital Revolution and by “emerging technology breakthrough in a number of fields, including robotics, artificial intelligence, nanotechnology, quantum computing, biotechnology, The Internet of Things, Blockchain, 3DPrinting and autonomous vehicles.” So the Fourth Industrial Revolution, in their own words “will make ways in which technology becomes embedded within societies and even the human body.”

Having described very briefly the four industrial revolutions that impacted on our society in the past three centuries and are affecting our human society and the planet even today, it is time we pay attention to the role Buddhism, which survived for over twenty-six centuries and the role it should play in relation to the present and future societies human beings are attempting to build applying these new technologies.

At the inception of this paper I mentioned about the deep respect for all life we have to cultivate as Buddhists. Similarly I spoke about the importance of adhering to a minimum of five precepts to live a peaceful and happy life. I then described how a human being strives to awaken his personality to the fullest by extending the practice of *Sila, Samadhi and Pragna*. When we compare this Buddhist approach to the way western science and technology developed, it had no moral or spiritual foundation to conform to or a spiritual goal to aspire for. It was free to pursue research for a universal knowledge and develop numerous technologies one may use for betterment of oneself or annihilation of one’s enemies irrespective of its positive or negative impact on the broader society. Their main objective was craving for wealth or power or to satisfy the six senses. Beyond that materialistic desire there was no other spiritual ideal to look for in both research and application.

Who gained from the past three industrial revolutions? Certainly, they were not the people in general or those who deserved it the most. On the contrary from all these revolutions the wealthy, the ruling classes, industrialists, multinational investors, imperial powers and such other privileged classes benefited while the farmers, labourers, small landholders and non-professional masses suffered.

*“The richest 1% of the population now owns over half of all household wealth”*

*Source: Credit Suisse’s Global Wealth Report 2015.*

Oxfam’s new report presents an even more dramatic concentration of assets, finding that 62 individuals controlled more assets than the poorer 3.6 billion people combined who constitute half the world’s population.

Whatever the damage done to poorer communities in the world, especially to those who were under western imperialistic powers in the past like those of us in Sri Lanka and Vietnam and the present neo-colonialist ways, our economies are controlled by rich countries and multinational corporations, we still have to view the future realistically. We have to clearly identify the positive aspects of the Fourth Industrial Revolution and develop a common approach for the world to follow based on Buddhist principles and practice which will result in the wellbeing of all humans and also ensure the preservation of all life on this planet. We have to keep in mind the Buddha’s directive to the first sixty enlightened disciples (*Arahats*) He sent out to the world to teach His Dhamma. “Bhikkus, wander forth for the welfare and happiness of the many, for the compassionate assistance of the world.”

In this spirit Buddhists both clergy and lay have a great responsibility to re-educate the world as to how best we can remove inequalities, injustices and ignorance from human society which originated right from the first, second and third industrial revolutions. There are communities in the world who are still living in the pre-industrial age. There are a vast majority of communities who have yet to experience the second and third industrial revolutions. If the Buddhist ideal of serving humans, other forms of animals, plant kingdom and nature as a whole is truly practiced in the new industrial era that has begun, the past mistakes can be rectified. It is possible to bypass or leapfrog the first two or three phases and straight away help the weak and poor communities enter the fourth phase with a chosen mix of technology to deal with predetermined issues such as mass scale poverty, disease and social conflicts, if only those who are in control of technology

are educated in Buddhist teachings of *Loving Kindness (Metta)*, *Compassionate Action (Karuna)*, *Dispassionate Joy (Muditha)* and *Equanimity (Upekkha)*.

Buddhist practitioners have a great responsibility of engaging themselves in a global survey to identify communities who have to be immediately helped using appropriate technologies that are available to us. All this become possible if only a universal scale transformation of human consciousness is launched successfully. At the present moment Buddhists have easy access to the communication technologies which can initiate and accelerate this renewal. When a critical mass of such consciousness transformation occurs only, people will begin to think and question certain commonly accepted beliefs and practices. Their greed will be replaced with giving or charity (dana)'.<sup>7</sup>

In my opinion we have to first identify those relevant technologies which could be used for such a global consciousness shift by Buddhists. Secondly we have to identify the issues that have to be immediately dealt with in relation to the vast majority of people in the world who are struggling to survive without even having enough to eat. Thirdly we have to develop a clear perception as to how these technologies and their applications will affect the life support systems and the conservation of nature and secure the living world from disasters like the worsening climate change and global warming.

For a moment let us look at the materially advanced societies like Japan in our region and how technological advances affected their individual, family and community lives. In these so called highly advanced societies suicide rate is said to be the highest in the region. Interpersonal relationships have become so distanced and estranged that an individual no longer can turn to his or her parents, elders or the community for advice and help. The inbuilt value systems that prevailed in the pre-industrial society are no longer there. The human personality is lost in a barren desert of dumb technological gadgets and networks. In this kind of helpless situations mental disorders are on the increase in the same way as suicides. The human beings almost from the adolescent age have no vision in life to live for. Besides endless gratification of the six sense



faculties they hardly have any other reason to live for.

On the positive side we are aware that these technological industrial revolutions have brought about numerous benefits to ordinary populations as well even though most of the benefits were acquired by the privileged classes and countries. Depending on the governance and fair economic systems common people have got the freedom to access to the best of health care, medical treatments, educational opportunities and other forms of services such as in the areas of travel, leisure and entertainment to live a comfortable and happy life. Humanity from its inception has been cursed by famine, disease and violence. The industrial revolutions along with advancement of democratic governing systems are successfully combating these three evils.

The United Nations Universal Declaration of Human Rights states that 'the right to life' is the most fundamental value of humanity. Various UN bodies like FAO, WHO and the Security Council along with other intergovernmental bodies and non-governmental organizations have immensely contributed to save human lives from these three enemies. Yet we have a long way to go before we can say that humanity as a whole is free from hunger and disease. In the case of violence and war the very advancements made in nuclear weaponry keep those who possess them to refrain from confrontations because of mutual fear and instead resort to peaceful negotiations to resolve their conflicts. On the contrary individual and group violence are on the increase due to various social factors such as poverty, communalism, ideological and racial rivalries.

Scientific researchers with support from billionaires, bankers, and dictators who wish to be immortal are exploring ways to remain young, without getting old or dying. They are very serious about it and some have publicly declared that by 2050 they can overcome death. While a few of them who never stop craving for more and more will continue on pursuits like that, we should concentrate on a selective application of a mix of available technologies to show the world the path of Buddhism for all those who are yet to satisfy their basic human needs and others who do not find happiness in all the material affluence they have acquired from the industrial revolutions. There is no doubt that the vast majority of human

beings will consider the Middle Path (*MajjimaPatipada*) or the Noble Eightfold Path as a sensible way of life to meet the present-day challenges.

The Buddha's advice to the monks was as follows:

*"Monks, this life of human beings is short; one must pass on to the future life. You should reflect wisely, do good, and live a pure life (brahmacharya). One born cannot avoid death; one who lives long lives a hundred years or a fraction more."*

*"Short is the life span of human beings, The good man should disdain it. You should live like one with head aflame. No one can avoid death's arrival"*.

According to the ***Dhammapada*** a collection of sayings of the Buddha in verse form and one of the most widely read and best-known Buddhist scriptures "Mind precedes all phenomena. Mind is their chief; they are all mind-wrought. If with a pure mind a person speaks or acts happiness follows him like his never-departing shadow"

In the *Dhammapadawe* also come across the following stanza:

*Arōgyā paramā lābhā  
santutthiparamamdhanan  
vissāsaparamā nāthi  
Nibbānanparamamsukhan*

The meaning of this stanza is:

*"Health is the ultimate profit, contentment is the ultimate wealth, trust is the best relative, Nibbana is the ultimate bliss"*.

Buddhism is not a religion as such. It is an explanation of the human personality in relation to the rest of the living world and a time frame in which there is no beginning or end. If the stakeholders of the Fourth Industrial Revolution examine the teachings of the Buddha in the above four spheres of health, contentment, trust and bliss from a scientific viewpoint, certainly immense good results could be achieved for humanity as a whole. There are diseases which are the result of polluted air we breathe, chemically poisonous food and unhealthy drinks we consume all of which

are by products of the so-called revolution. Kind of entertainment to which our eyes and ears and all other faculties of our bodies are tuned to and endless possessions our minds crave takes good health and inner peace away from us. Buddhism shows us to place confidence or trust in the Dhamma for the good of present life and lives to come.

Sadly, with the onset of the new techniques, systems and disciplines the very structures of biological organisms is now brought to the sophisticated level of manipulating individual genes. This has resulted in manipulating the very codes of life, thereby giving rise to the likelihood of creating entirely new realities for humanity as a whole. According to Buddhism, there are five Cosmic Laws or natural processes (Niyamas) which operate in the physical and mental realms and which should not be meddled with. The Buddha taught us that these five factors at work in the cosmos cause things to happen. They are :

**Bija Niyama : Cosmic Law** pertaining to genetic order, living matter or what we call biology, Bija Niyam governs plant life, germs, seeds and nature of all life plant and animal..

**Utu Niyama : Cosmic Law** pertaining to Seasons, Climatic Cycles, weather and all inorganic phenomena. Natural disasters such as earthquakes, tsunamies and cyclones are not caused by Karmic factors.

**Kamma Niyama: Cosmic Law** pertaining to Kamma (*Karma in Sanskrit*) is the law of moral influence, Cause and Effect.

**Dhamma Niyama: Cosmic Law** pertaining to the twelve factors of Dependent Origination, Impermanence Suffering and Egolessness and such other phenomena .

**Citta Niyama: Cosmic Law** pertaining to consciousness, thoughts and perceptions.

I wish the scientists took time to study these five cosmic laws before they started experimenting with genes and cloning either naturally or artificially. Only then they would have realized the degree of damage caused to humanity. At times I wonder whether all these advancements contribute to the degeneration of our historic,

intellectual and cultural roots on which our civilization was built.

The Buddha declared that His Teachings are not for the ignorant. Buddha Dhamma is meant for the intelligent and wise people. It is not like all forms of technological advancements which produce mass scale goods and services to quench the unending desires of human beings, corporations, governments and other organized bodies. Buddha Dhamma is principally meant for those who want to spend a happy and contented life in the present existence and strive heedlessly to achieve supreme happiness of Nibbana.

In conclusion, I believe that Buddhist have a critical role to play in propagating the real Dhamma. Buddhists around the world should use every possible communication methodology to educate masses to apply the principles of Buddha's teachings. Number of Sutras like *Mahamangala Sutra*, *Karaneeya Sutra*, *Singalovada Sutra* must be made available in all possible languages. *Similarly, industrialists and businessmen should be made familiar with Sutras like the VyaggaPajja Sutra which explains four principles they should follow for right kind of business and industry. They are Efficiency in production (Uttana Sammapada), Conservation with regard to raw material as well as the products (Arakka Sampada), Social environment in which employers and employees live in harmony (Kalyanamittata) and purpose of which Production is made (Samajeevakata).*

*With regard to rulers it is necessary to educate them about Buddhist principles of Sharing of power (Dana), Morality (Sila), Recognition and promotion of talent (Pariccaga), Uprightness (Ajjava), Impartiality in judgment (Majjavam), Composure in conduct (Tapam), Non-hatred (Akkodo), Non-violence (Avihinsa), Patience and Forgiveness (Khan-ti) and Non-revengefulness (Avirodhita).*

The Four Noble Truths, the Noble Eightfold Path and the twelve factors of the Theory of Dependent Origination cannot be realized with any technological gadgets or tools of Artificial Intelligence except by a highly cultivated and enlightened mind. Only enlightened communities, leaders and rulers can bring true peace, happiness and prosperity to the humanity and the rest of the living world.