

BUDDHISM AND THE FOURTH INDUSTRIAL REVOLUTION

BACKGROUND

Currently, we are living in the 4th industrial revolution by which computers, automation, robots and people will work together in entirely new ways. Applying technological innovations will help the production process faster, less manpower and more fully collected data. Product quality is ensured by controlling from raw materials to forming and transferring to consumers.

However, it may have raised many issues for humans. One of its drawbacks is many workers will lose their jobs due to replacement machinery, while businesses may face difficulties in recruiting human resources to meet the requirements of the job. This can lead to inequality, even to break the labor market. Economic uncertainties will lead to instability in life and even politics.

In addition, new technology will cause change in power, security concerns, and a big gap between rich and poor or the way of communication through the Internet which challenges information security for both people and political systems. These problems have urged the world to find urgently the right solutions to attain sustainable development which is favor of the Buddhist philosophy. In this theme, we highly focus on the Buddhist approach and response to the Fourth Industrial Revolution to generate happiness and peace for humankind.

REVIEW OF CONTENTS

Peter Daniels deals with the issues of “*the 4th industrial revolution: A Buddhist perspective for sustainable societies and wellbeing.*” The focus of this paper is to analyze the development of the 4th industrial

revolution, the emerging of the physical and digital world (eco, socio, environment) in the perspective of Buddhism for a sustainable society and human wellbeing. It comprises a preliminary Buddhist-influenced analysis of the 4IR and likely consequences in terms of environmental impacts and also more fundamental aspects of the root causes of samsaric suffering. Mindfulness and awareness of the real sources of wellbeing (and hence suffering) are key aspects of the Buddhist-inspired analysis of relevant effects and identification of responses to guide the 4IR.

Geoffrey Bamford focuses on “*reacting to the fourth industrial revolution: side-stepping determinism.*” The Fourth Industrial revolution is more or less equal to the digital revolution of the world in the late twentieth century. This influenced everything in the world in a drastic way, and Buddhist heritage is not an exclusion. The Fourth Industrial Revolution can be seen with advanced technology in all sections, such as retrieval of artifacts, recording of objects, storage, exhibiting, transportation and marketing of artifacts with digital technology. This is highly utilized by the dealers of antiquities in Asian countries and Auction Houses in the West, especially in London and New York. The present paper will survey into how it has been utilized in all these phases and show how Buddhist antiquities are being sold in the Western Market by looting and illegal trading of Buddhist antiquities. The present paper is a survey on how it has affected to Buddhist Heritage and an attempt to suggest some solutions to protect Buddhist Heritage from this malaises situation. Further, the Newspaper articles and Websites related to the aspect will be scrutinized. Finally, a practical solution to minimize illegal trade of Buddhist antiquities and proposal to reduce looting and trading of Buddhist heritage will be proposed by the present paper which is a necessity in the age of the Fourth Industrial Age.

Ven. Thich Nhat Tu looks at “*understanding the impact of the fourth industrial revolution.*” The author highlights the prospects and impacts of “Understanding the Impact of the Fourth Industrial Revolution” to recognize its positive and negative effects, as well as identify the opportunities and challenges of this Industrial Revolution. The nature of the 4th industrial revolution is a high-

tech revolution to generate the era that pleases human's audio-vision. In the past, if we had to be in direct contact with real objects and persons, then the Fourth Industrial Revolution has allowed us to experience illusive visions through smart devices. The most outstanding thing is the Internet of Things (everything connected), which has been described thousands of years ago in the sutras of the Mahayana and Theravada Buddhism. From the concept taught by the Buddha 26 centuries ago, scientists have generated a theory of the interactive network of all things that are called briefly as "all things connected" in the Vietnamese community. Buddhism visualizes a phenomenon or an event to identify clearly its utilities and drawbacks by analyzing the causes, favorable and adverse conditions that generate immediate or long-term consequences.

Simerjit Kaur and Satyendra Kumar Pandey present the "*Role of Buddhism in the era of fourth industrial revolution.*" The paper present and hypothesize the role of Buddhism in the era of the fourth revolution when the AI has become overly developed and start overtaking humanity. As per Klaus Schwab, 'it will fundamentally alter the way we live, work and relate to one another. In its scale, scope, complexity, the transformation will be unlike anything humankind has experienced before'; what is worrisome is that if Artificial Intelligence begins to imitate our brains, sooner or later, it may learn to 'to dictate and make us slave'. In such a scenario, the principles and values, enshrined in Buddhism could be of immense help to the world, as we know it deals mainly with existential problems of human being and strives to establish the regime of happiness and peace in the world and the application of the Buddhist approach to resolving the human-created issues along with the execution of the Fourth Industrial Revolution.

Rev William Beaumont Edwards discusses "*Buddhism and the fourth industrial revolution.*" Launch into a discussion of the effect of artificial intelligence in the Fourth Industrial Revolution, concerning how each industrial revolution caused massive shifts in the dynamics of human civilization. The author addresses the resiliency of Buddhism could obligingly adapt and easily survive any change in those dynamics with which it is presented. By referring to a religious text, he wants to emphasize Buddhism is

not based on faith; it's based on reason. Faith or confidence comes later. The ability to approach this new era of the Fourth Industrial Revolution with logic, reason and understanding is of paramount importance. Simply, because it is rooted in reason, the Buddhist religious tradition can provide that.

Waruni Tennakoon deals with the topic of *“Fourth Industrial Revolution: Both as an Ironic Cover-Up of Dukkha (Suffering) and Effective Means of Practicing the Dhamma.”* The paper discusses the concept of the fourth industrial revolution as well as its effect on society compared to the other three revolutions. The present paper expects to discuss the ways and means of applying the fourth industrial revolution to be blissful to the humankind by not being blinded by its concealment of the essential dukkha (suffering) of the beings, with reference to the Dhammacakkpavattana, saccavibhanga and avijja suttas. The paper mentions the fourth Industrial Revolution “seems” to provide solutions for the birth, aging, sickness and death with better life conditions the human history has ever experienced, ironically it enriches the craving of the man with all such luxury invented day by day in the name of the industrial revolution. It neither facilitates the moderate kind of living of people and nor supports the path suggested in Buddhism to be free from suffering. However, the same unrealistic world that seems to be devoid of dukkha which is created by the advancements of the industrial revolutions hinders people from understanding the suffering and thus they are made to be heedless to be free from it. But the same could be converted to be blissful by using it effectively as a vehicle to practice the path for eternal freedom suggested in Buddhism.

Prof. David Blundell overviews *“Buddhism in Monsoon Asia: Digital/Spatial Humanities and Conservation of Heritage.”* The paper brings together studies that illustrate digital/spatial approaches for the conservation of heritage across regional economies and bridging distinctions between cultures. Geography continues to play an essential role in dynamic global environments of multicultural diversities ranging across very different regions that increasingly find heritage as common denominators. The paper also highlights early historical evidence of trade networks of Austronesian

navigators circulating in the dharma in the Indian Ocean, mainland and island Southeast Asia, and China. This coincides with work on Lewis Lancaster's Atlas of Maritime Buddhism as a project of the Electronic Cultural Atlas Initiative (ECAI) with Jeanette Zerenke and our other Austronesia Team member utilizing geographic information systems (GIS).

Prof. D. Dayalan discusses "*Digitalization of Buddhist sites in India.*" In the chapter, the author explores the topic of Digitalization of Buddhist sites in India. Being the homeland of Buddhism, India is boosted with a large number of Buddhist sites where every spot associated with Buddha is immortalized and turned into a center of pilgrimage by his followers who erected structures in the hallowed memory of the Master. Of them, the Four Great Places namely Lumbini where the Buddha was born, Bodh-Gaya, which witnessed his Enlightenment, Sarnath, where the First Sermon was delivered and Kusinagara, where he attained parinirvāṇa (deceased) are embellished with monuments of varied kinds. The spread of Buddhism from India to Śri Lanka, China, Korea, Japan, Vietnam, Myanmar and other Asian countries triggered a profusion of cross-cultural exchanges between India and those countries. The Buddhist monks from those countries were quite often visited India on pilgrimage right from the day of introduction of Buddhism in their soil.

AlexAmies details the aspect of "*Building blocks for open ecosystems of online resources serving Buddhist communities.*" The paper gives an overview of the state of the art of the software building blocks for the development of online resources serving Buddhist communities and how those are driving new capabilities and broadening access. The central theme described is the huge scale and rapid evolution of the open source movement and modular package management systems that are built on open source. The author hopes that the evolving technologies can bring more improvements to Buddhist resources, including large scale translation of the Chinese Buddhist canon and the collected works of Venerable Master Hsing Yun to English. An additional impact is the broadening of access to high-quality scholarly resources beyond the academic community to the monastic and lay Buddhist communities.

Miroj Shakya looks at “*Impact of digital technology on Buddhist education.*” The paper focuses on the impact of digital technology on Buddhist education. As the technology advancement improved on a daily basis, it’s offering a lot of new convenience as the accessibility of the educational contents via multiple devices as well as the shift from traditional physical class to a more timed flexible digital class. However, it is still a tool and needs to be used with consideration.

Khanh T. Tran explores “*Sutra translation using recent advances in artificial intelligence.*” The paper introduces and emphasizes the importance of AI or neural machine translation (NMT) by google brain in translating Buddhist sutras from Chinese into English. This paper will review the recent advances in machine learning, especially the neural machine translation (NMT) compare to the traditional translating methods process such as google translate, word substitution and manual editing and point out the benefit of these such technological innovations can help into this important Buddhist work.

A.T.Ariyaratne A.T presents the topic of “*Dhamma for the 4th industrial revolution.*” In his thought-provoking article entitled Dhamma- For the 4th Industrial Revolution, he forewarns us for the over usage of the technological “advancement” where the modern age is going bereft of the spiritual life. To overcome this onslaught of the latest high-tech Revolution, he suggests seeking refuge in the Buddha’s Teachings.

Ven. Ph.D Jeongwan Sunim examines the topic of “*Religious Education of Buddhism and the Fourth Industrial Revolution.*” The author explores the problem of Buddhism religious education which is faced in the era of the Fourth Industrial Revolution according to the trend of such time. While the educational environment is changing in the age of the Fourth Industrial Revolution, changes in methods and media for the religious education of Buddhism are inevitable. Based on the teaching of Buddhism, the content of education reflects the characteristics that analyze and interpret the aspects of the Fourth Industrial Revolution era. The purpose of religious education of Buddhism should include cultivating human ability necessary for the era of the Fourth Industrial Revolution.

Most Ven. Thich Duc Tuan highlights “*The Fourth Industrial Revolution and Buddhism*”. The author has raised the question of what is the Fourth Industrial Revolution, whether the Fourth Industrial Revolution optimistically improves the human condition or will it lead to greater inequality, disruption of the labor market because of “low-skill/low-pay” and “high-skill/high-pay” workers and other negative consequences. The paper addresses how Buddhism could contribute its part to reduce the adverse.

Most Ven.Dr. Thich Nhat Tu
Dr. Thang Lai

