KEYNOTE SPEECH

Buddhist Understanding of Learning and Learned Person (bāhusacca and bahussuta) in the Age of Artificial Intelligence (AI)

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Introduction

Scientific discoveries and technological inventions and innovations are usually welcome because they are meant to make human life easier and more comfortable. While this generalization about science and technology is not always correct, perhaps, more importantly, technological inventions have deep moral and ethical implications on the very nature and the existence human beings. Today in this academic conference meant to explore the applicability of Buddhism for global wellbeing and qualitative transformation we will focus, as time permits, on one such technological advancement and reflect on as to how to deal with challenges posed by it.

Producing and Storing Knowledge

It is generally accepted that universities and higher centres of learning are for production and dissemination of knowledge. Such institutes all over the world have been engaged in this work for centuries. Although in the pre-modern period there were only a few such institutions in the world, since the dawn of modernity starting around the 16th century higher centres of learning have become a regular feature in all over world today. Consequently, as testified by practically hundreds of regular and on-line academic and research publications published periodically in all national and international languages, a vast amount of knowledge is being produced and accumulated.

Libraries are the places of storing knowledge, and associated with the higher learning centres there have been such collections of texts from very ancient times. In our own Buddhist history we know about such vast collections of texts, for example, at Nalanda University in India. The collection of Nalanda was so vast (9 millions according to records) that when it was torched by invading Turkish Islamic forces it is said that it was burning non-stop for three months.

In addition to the physical libraries as stores of knowledge found in thousands in all over the world, the modern technology, i.e. information science and associated technology, has made possible storing vast amount of knowledge 'virtually' in such devices as easily portable pen drives and data banks. The knowledge stored in such minute equipment can be so vast that one may not be able to finish reading the content in one's entire life time. What in the past one had to find in texts stored in libraries and had to be kept in memory for practical use, today, may be carried in one's possession easily.

Artificial Intelligence (AI) and Its Discontents

The most recent development in this knowledge storing process is what is known as 'artificial intelligence' (AI) which is much more than a mere devise of accumulating information. According to the Concise Oxford Dictionary AI is 'the performance by computer systems of tasks normally requiring human intelligence, such as visual perception or decision making.' It has further been described as 'science and engineering of making intelligent machines' (https://hai.stanford.edu). It is clear that this goes much beyond the task of storing knowledge. We will have to imagine a world in which machines will be making decisions and performing repetitive tasks for us.

Without any doubt, this makes human life easier allowing much free time for us to do other things. At the same time, the further developments that are taking place all the time continue to pose questions, some questions related to knowledge with implications for studies and research, and some others which are of more serious nature related to the very existence and meaning of human life.

Under the first category are instances of misuse of easily available information and knowledge, i.e. plagiarism, a practice in the field of education which has necessitated developing anti-plagiarism programs as has been quite familiar in universities and higher education institutes for some time now. This is not really a new issue, and it has been there ever since the use of internet became easily available. What is happening with the development of such AI programs as ChatGPT is a more serious issue arising not merely from free availability of knowledge but from the fact that such knowledge is systematised, organized and arranged into Power Point presentations or presented as work of research or academic papers which under normal circumstances would require an academically trained human mind to do. This is qualitatively different from the use of easily available information, which is not a result of one's intellectual effort, for one's own purposes in which apart from getting information freely, everything else, i.e. choosing and arranging information and creating an academic paper, had to be done by oneself. Under AI programs, however, not only the knowledge

is not derived from one's own intellectual effort but also creating the academic paper or a presentation is done for oneself by the machine. The issue is: under this condition, what is the fate of learning and learned person/scholar as understood traditionally? What are the moral and ethical implications of this development?

In addition to this issue, perhaps even more serious issue with developments in AI, in particular, is when AI takes over the task of making decisions which is usually done by human beings in addition to performing repetitive tasks how will human beings cope with being a part of a process in which one really does have a significant role to play and the ample free time gained naturally due to this process? This takes us to the concept of 'appropriate technology' which was discussed extensively in 1970's although we do not hear about it much today. Later my discussion I will look at issues arising from this aspect of AI.

Knowledge and Knowledgeable Person from a Buddhist Perspective

Traditionally knowledge was acquired by people with their own efforts. Ability to understand and memorise things were the essential features of such knowledge. In other words, in traditional ways of knowing knowledge was an inner of oneself. In AI, however, knowledge is something you retrieve through the machine whenever you need it only to be kept aside once the task was over. In that sense, it is like a tool or a gadget which you keep aside after it is used. What is wrong with it, one could ask. One might even argue that it is in fact good because one is then free from something which one does not need all the time. Anyhow, we do tend to forget knowledge that is not relevant or useful.

Although this way of reasoning may appear valid, a closer look will show that the process of acquisition of knowledge, even if what is acquired from that process will prove to be not useful later, involves many positive features such as seeing relations, ability to see similarities and differences, being able to make value judgments etc. which help one who acquires such knowledge to be one who is qualitatively different from those who have not acquired such knowledge. Furthermore, such abilities as critical thinking and logical analysis, which are essential for rational human life, do not arise in a vacuum but arise only in the presence of necessary 'raw material' or information for such skills to arise.

Apart from the features listed, the ancient Indian tradition held that knowledge or learning gives disciplined character- vidyā dadāti vinayam, which in turn would give recognition causing one who has knowledge to acquire both material wealth and goodness. Although we cannot rule out that this could happen with the acquisition of knowledge, in the Buddhist view, however, there is no guarantee that knowledge or learning would necessarily give discipline. A well-known Buddhist statement occurring in the Jataka literature asserts that

learnedness or learning without moral discipline does not serve a good purpose – silena anupetassa sutenattho na vijjati (Silavimamsa-jataka 362).

Although Buddhism does not hold that discipline necessarily comes with knowledge, it, nevertheless, holds that one needs to have knowledge. In the Mangala-sutta, learnedness and skill, bāhusacca and sippa, are listed among auspicious things that one should have. One has to have knowledge as a necessary condition in the process of following the path. One who does not have knowledge of the Dhamma is referred to as 'ordinary person without knowledge' (assutavā puthujjano) where as one who has Dhamma knowledge is described as 'learned noble disciple' (sutavā ariyasāvako). This latter person may not necessarily be an 'educated' person in conventional sense. Nevertheless without adequate knowledge in the Dhamma one cannot follow it or practice it which ultimately would lead to the highest form of liberating knowledge. All these types of knowledge are included in the three-fold classification of knowledge found in the Buddhist texts, namely, knowledge arising from learning (sutamaya-paññā), knowledge arising from thinking/reasoning (cintāmaya-paññā) and knowledge arising from moral contemplation (bhāvanāmaya-paññā) . Given the Buddhist belief that one does not become virtuous simply because one has knowledge it is clear that learning has to be accompanied with moral sense which requires moral training.

Based on this discussion we may identify several types of people existing among us: (i) a person who has access to knowledge but does not possess knowledge: one with AI skills will be a good candidate for this category; (ii) one who has knowledge but lacks moral sentiment, i.e. knowledge without virtue; and (iii) one who has knowledge guided by morality. The last may be considered as the most desirable from a Buddhist perspective, a learned person in true sense. Regarding the one in the first category one might argue that anyway one who does not possess knowledge is not severely disadvantaged because in the Buddhist view knowledge does not cause discipline necessarily. This argument may be countered by pointing out that in the absence of certain basic intellectual capacities which are the necessary conditions for any kind of rational behavior (meaning, behavior guided by reasons), moral judgment is impossible.

AI as Not-Appropriate Technology

Earlier in the discussion we saw that AI was described as 'science and engineering of making intelligent machines.' Further AI is described as the ability of a machine to perform cognitive functions associated with human minds, such as perceiving, reasoning, learning, interacting and the like. While there may be many advantages of inventing this type of machinery, as far as human

beings are concerned, one thing is clear; that is, at least some aspects of human intellectual behavior, which have been the monopoly of human beings now have been assigned to machines. The question is: What will happen to human beings If they are substituted with machines?

In this context we may profitably think about 'appropriate technology,' a concept that became wide-spread in the wake of fuel crisis in 1970's. The concept was highlighted and consequently became popular due to the initial discussion of E.F. Schumacher in his celebrated work Small is Beautiful: Economics as if People Mattered (Harper and Row, New York, 1973). Schumacher criticized large-scale machinery which was driven by the urge to maximize profit at the expense of the wellbeing of people as well as protection of environment. The idea was that technology should be affordable, sustainable in particular in social and economic conditions and should meet the needs of local communities. The key insight of the thinking was that ultimately technology has to serve people and should not replace them. Although by now this concept is not much discussed in the mainstream economic discussions AI appears to provide a fresh and even a better instance highlighting the need to resume the discussion on the appropriateness or otherwise of technology.

AI is capable of attending to repetitive work and by doing so, free people from such work which in itself is not undesirable. It is true that the daily life of many people is characterized by such sordid work. In the Marxist philosophy this state of workers who are reduced to the state of a tool and would not become integrated with the work they do is referred to as 'alienation' causing ultimately in them estrangement, fatigue and frustration. In his much discussed essay, 'Myth of Sisyphus' (1942) Albert Camus highlighted the sordid state of human existence by comparing it with the fate of Sisyphus, a mythical Greek ruler who, as punishment to his misbehavior, was condemned by gods to roll eternally a boulder to a mountain top to see that it rolls back to the bottom to be rolled up again and again without stop. Camus thought that the fate of present day human beings is comparable to that of Sisyphus; and, nevertheless, they should embrace the present moment and find satisfaction in the process of act whatever act they are to do without thinking about the outcome. Camus' solution to the problem was an articulation of the existentialist thinking which was in vogue in the first part of the last century. It appears that it is possible for one to argue in favour of AI and say that that it can take away at least some amount of Sisyphus's repetitive work, i.e. the life of the ordinary human being caught up in unending drudgery, and make it at least bearable.

Even if that may happen, it would not end the problem. It is true that by AI the human being can be liberated from his sordid work and consequently

will be blessed with much free time. Then the question is: how would one deal with this newly gained free time at one's disposal? Erich Fromme, well known humanist Marxist psychologist, discussed in his celebrated work, Escape from Freedom (Farrar & Reinhart, New York, 1941) the problem of freedom in a somewhat different context, and highlighted the paradoxical nature of freedom, namely, once liberated form one type of subjugation, one becomes prone to submit oneself to another, and rather than cherishing one's freedom one tries to escape from the freedom of self-responsibility. It is interesting that Fromm's work was published in 1942 in England under the title 'Fear of Freedom' further highlighting this paradoxicality. Although the freedom made possible by AI, freedom from repetitive work, is not exactly the same as that discussed by Fromm the enigmatic character of human response to freedom that Fromm highlights, is not irrelevant in this context. It is quite possible that people may find the freedom from repetitive work they achieved due to AI unbearable for them. On the one hand, AI has taken away from people the burden of responsibility of doing their own work thereby allowing them freedom from bearing responsibility; on the other hand, that very freedom could be a burden in being without anything worthwhile to do or not knowing how to make use of the free time one has at one's disposal.

One could argue that the problem of freedom we refer to here is not a problem of AI, and further maintain that AI makes freedom possible; but it is not up to AI to tell people how to make use of their newly-gained freedom. This argument can be valid only if it was not the case that AI, in making learning and knowledge unnecessary in its activity of taking care of cognitive functions of human beings, has contributed to the problem, namely, ignorance and inability of people to make use of their free time profitably.

Looking from a Buddhist perspective at this juncture, we know that the ultimate Buddhist religious experience is marked by the freedom from defilements, vimutti, and that those who have achieved that state of mind, arahants, have never complained about not knowing how to make use of their time after liberation. They, nevertheless, being cool and pacified (sītibūta, nibbuta), were not 'busy' with work, very often an unsuccessful way to camouflage one's boredom caused by not having something to be occupied with non-stop, and were not 'idling' either due to not having something to do. While experiencing the bliss of liberation (vimutti-sukha-paṭisamvedi) the arahants including the Buddha were living for the welfare and happiness of multitude of people (bahujana-hitāya bahujana-sukhāya). This shows that the problem is not that one has got ample free time with which one does not know what to do but that one is internally empty and other-dependent, in this case, dependent on machinery like AI, and, once left along to himself or to herself, will be desperately trying to run away from freedom. As in

the case of the Buddhas and arahants, those who are truly liberated with their own efforts, this will be totally different- they live a life motivated by wisdom and compassion (paññā and karuṇā), with intellect and emotion mutually supported and enriched.

Being without judgment and emotions is listed as an advantage of AI. This emphasis must have its justification in valuing objectivity in decision-making. In natural scientific research objectivity is taken without much debate as the ideal. This, however, is not applicable in the same manner in social sciences and humanities or social and human affairs. Although it is not unusual that being judgmental and being emotional are perceived as negative and undesirable, judgment as a rational faculty and judgments as deriving from such a faculty and emotions such as love, compassion, friendliness and the like are essential for social wellbeing cannot be dismissed in favour of decisions made by AI. In other words, it is positive emotions and judgments that make human existence desirable, beautiful, useful, human and humane. If the world is devoid of such emotions it will have adverse effects not only for human beings but also for all living beings including animals and natural environment.

Concluding Remarks

To conclude, this way of thinking should not be understood as war against modern technological developments. All the scientific knowledge and good scientific and technological inventions may be considered as results of knowledge guided basically by a moral sense. That this is not the case always is also everyone's knowledge as exemplified, for example, by the productions of mass destruction in which industry thousands of brilliant minds all over the world are employed.

Buddhism does not have a history of anti-science or anti-technology for the obvious reason that modern science and technology, not science and technology per se, had its origins in the West. But there was not any antagonism when modern science and technology reached traditional Buddhist societies starting from the 19th century. Buddhism does not have a reason to go against or reject knowledge and technology so long as they serve welfare and happiness of all beings. Hence the Buddhist position may appropriately be described in such terms as 'compassionate',' humanist' or 'deep' indicating that technology including AI should preserve the dignity of human beings.

Finally, a Sanskrit śloka which I learned a long time back as a young student says:

Pustakasthā ca yā vidyā – parahaste ca yaddhanam

Kāryakāle samāyāte – na sā vidyā na taddhanam

The knowledge in the book or the wealth in another's possession is neither knowledge nor wealth when time to act has come.

Despite this ancient saying, in AI we have a case where knowledge in the computer is really knowledge which one can make use of when time to act has come. But is it your own knowledge? What is the difference between this sort of knowledge and hiring a learned person do the work for you in your name and not in his name? Do we not have here a fresh type of alienation which could even more deeply be felt in one's inner being than when one is alienated from one's own material production as Carl Marx attributed to the capitalist mode of production?