Virtual World versus Real World

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There has been a spate of articles, mainly emanating from the United States of America, which predict a scenario in which almost every manual task will be transferred from humans to robots. These could range from very simple ones programmed to do one function or a limited range of functions-in other words to perform only repetitive tasks-all the way upto complex androids which are almost uncannily human and are equipped with artificial intelligence. One consequence of this would be that virtually every task now performed by human beings, almost every unskilled, semi-skilled or non-specialised skill, would be taken over by robots and the human worker would be rendered redundant. The only employable human beings then would be those possessing the higher technical knowledge which enables them to create the software which programmes every thing, drives commerce and creates further human redundancies. This is worse than H. G. Well's "War of The Worlds" or even Star Wars. This would be the virtual world in which a simulated tree could be created and projected, but no one would know how to grow a real tree.

That is not all, because even today there is a sharp divide between education which makes people employable and education which makes them human. In the United States there is already a real crisis in institutions in which education pertains to humanities, social sciences, liberal arts and fine arts and they are in deep trouble. Apparently in America government guarantees loans taken by a student, which means that in case of default government pays. Because universities do not lose anything they do not mind people learning literature, arts or what have you! But-a very big BUT-these students are unemployable in a world increasingly dependent on technology and, therefore, the liberal arts colleges are dying. The day Oberlin College dies and some third rate technical college thrives the human race will be in grave danger. The world would then be the world of i-pad, android platform mobile telephones, smart phones and devices which do everything except eat, excrete and reproduce. It is now possible to paint, to simulate art works with a mobile telephone. What place then for Renoir, Monet, Velasquez or our own Ravi Verma or Raza?

This paper is not written with the negative objective of decrying or reversing technology. It is not even a Luddite type protest against, say nuclear science, nuclear technology or nuclear or thermal power. One has only to live through an electrical power shut-down for a few hours on a really hot summer day to realise how technology dependent we are. One remembers the days of the Strowger based telephone system which made telephonic communication so difficult. Sam Pitroda's telephone revolution, the semi conductor miracle, IT and ICT, mobile telephony, have all made life so much easier. Search instruments such as Google-search have made available access to data, to information across a wide spectrum of disciplines at the touch of a button whereas in the past one trawled through whole libraries to get it. Biotechnology and bioengineering have expanded the frontiers of medicine beyond any thing we could imagine. Travel now to the ends of the earth is done in only hours, unlike the past when it could be weeks or even months. Even the art of killing en masse in war is, thanks to technology, so fine tuned that we can now incinerate whole towns, whole districts, by clicking a single button. What a bolt action rifle was in the last decades of the 19th century is today the guided hand held missile and what the machine gun was in World War I is replicated by cruise missiles. Technology has made our weapons

so much more efficient that a real war is no longer fun. No room, for Fort Zindernerf or Beau Geste here.

Science and technology have done awe inspiring things and one field in which we have every reason to be grateful is medicine and health care. Whether it is epidemic control, curing of specific diseases, diagnostic tools which enable pin pointing of specific illnesses and suggesting the medical remedies, whether it is surgery which could be curative, radical or even plastic, modern medicine has increased the life span of human beings, ameliorated disease and made human existence more safe and more comfortable. In the past malaria was a killer, at present we even have a cure for cancer. What is more, medical science and the biotechnology to back it up through instrumentation have advanced and enhanced medical care. In the area of surgery robots are more efficient than human beings and nano technology delivers medicine more efficiently and accurately to specific body cells than did the techniques of the past. Even in the field of education the virtual classroom has enabled the outreach of quality education to expand and cover even distant institutions which could never hope to attract quality teachers on a personal basis. In other words, technology has brought students and teachers closer in one sense, though even here there is no real substitute for a one-to-one personal interaction between the teacher and the taught.

Is technology the real issue for discussion in this article? The answer is an ambivalent yes and no. Technology has always been the servant of man and was never looked upon as a substitute. The first agriculturist who received the Pusa Institute developed rust resistant seed of wheat would undoubtly have blessed the agriculture scientist who brought him the seed which resisted disease and gave him a better crop. The first problem with technology really arose at the time of the Industrial Revolution when manufacturing moved from the individual cottage or workshop to a factory where machinery with repetitive action undertook manufacture on a mass scale. This is when two new factors came in, the first being skill development which trained workers to operate a machine and the second was redundancies. As machines replaced human crafted production and as mass production by a machine replaced large number of workers, a surplus of labour was created, which situation is now called redundancies. What that means is that the surplus workers became useless, thus becoming a social burden. Being made redundant is not only a loss of livelihood, it also means becoming flotsam and jetsam of society. Nothing saps human morale more than to feel worthless and this was undoubtedly one of the unpleasant after effects of the Industrial Revolution.

The human spirit is indomitable because every stage of human existence which works for the degradation of human spirit also brings in its wake fresh political and philosophical thought which enables man to face the challenge of change. In the case of the Industrial Revolution it was Karl Marx and his book, Das Kapital, which created a new political philosophy and socio-economic order. Marx recognised the deleterious effects of replacement of labour by capital and workers by machinery and he advocated a new social order which would lead to socialism. In a way this was a clarion call for humanism of a high order because it put man above machine and called for a just social order. Even that most capitalist of countries, the United States of America, has not been able to ignore what Marx advocated and, therefore, has been forced to adopt a philosophy of equity, the responsibility of the state to provide social security to the needy and to enact the Equal Opportunity Act which not only ensured equality in terms of opportunity of employment but also enjoined the state to provide retraining to redundant labour so that it can be gainfully employed. Though a country wedded to minimal government the financial crisis of a few years ago was the signal for state

intervention in the financial market to protect the citizens of a free economy state which is not imaginable even in a socialist country. This point is emphasised because in the ultimate analysis it was the thinking of an academician like Karl Marx and the ideas he generated which led to a revolutionary change in political thought and political action.

Reverting to the theme of redundancy, that is a phenomenon every country faces from time to time. The mills of Lancashire made the weavers of Dhaka muslin redundant. The three year strike by Datta Samant in the textile industry made the mill workers redundant. A strong economy, nay, human ingenuity found answers to this question also. The mills encouraged power looms to produce basic cloth for them, which they then processed. A new synergy was created between the formal and informal sectors.

There is a major qualitative difference between redundancies in the developed world such as the United States and in India. In the US it is the formal sector, or organised sector, which provides the bulk of employment and, therefore, when redundancies occur in one segment the surplus workers are taken care of by the social security network till such time as they find employment in other segments. In India, in sharp contrast, the informal sector employees between 85% to 90% of the workforce. This sector is extremely vulnerable because it works at a level of income which is, at best, marginal and hence has no inbuilt scope for dealing with even the smallest crisis. The difference between employment in this sector and being unemployed is that those who have work at least survive, whereas the unemployed starve.

Imagine an expansion of the formal sector, technology dependent and manned by robots, which renders almost the entire informal sector redundant. A five percent unemployment rate can be handled but imagine a 85% unemployment rate caused by a technological revolution. This is such an enormous mass of people that it creates a very real danger that the frenzied mass would arise and tear the system apart. One wonders whether anyone has even remotely considered the impact on law and order of redundancies of this scale. The matter then becomes one not of technology versus labour but rather one of mass violence leading to nihilism.

Whatever be the thinking of the new generation of the advocates of technology, the fact remains that central to existence is man himself. Mankind has to live in the world of reality and not in a world of fantasy or a virtual world. In a lighter vein this reminds one of a book by George Mikes, The Prophet Motive. He writes, "The Arabs are a very proud people, the Jews are not proud...They are sober, self assertive realists. The Arabs are proud dreamers... For the Arabs dreams are reality; but the Jews know that the present day reality is not a dream." The author goes on to explain the above parable. He writes, "An old Arab is sitting at the end of the village where a large group of noisy children is playing. The old man calls one child and asks him ‘Why are you wasting your time here when figs are being distributed free of charge at the other end of the village?' The boy looks at him incredulously but he passes on this information to an older boy. After some whispering first one, then another child disappears until all of them are gone. Peace reins : the old man sits smoking his narghile in the blissful tranquillity. But suddenly he exclaims : 'Oh Allah! What am I doing here, wasting my time, when figs are being distributed at the other end of the village?' He jumps up and runs to the other end of the village to get his share of figs."

This story is reproduced in full because the question remains whether the virtual world of which the younger generation speaks will in reality not be like the world of fantasy created by the old Arab gentleman?

To revert to the question of education, we have the dictionary meaning of the word education given in Chamber's 21st Century Dictionary. One meaning is "to train and teach". Another is, "to train and improve ones tastes etc." One meaning of the word education is "based on experience or knowledge". Knowledge itself means, among other things, "awareness or understanding". Knowledge can be in the real, quantifiable knowledge of science and technology, or it can be in the abstract knowledge of literature, fine arts, humanities, social sciences, language, philosophy, or even such esoteric subjects as metaphysics and theology. If the end product of education is the acquisition of knowledge, can knowledge be graded only according to employability or pay package of the person who acquires the knowledge? In other words, is there knowledge which is useful because it can be measured in money terms and other knowledge which is useless because it merely develops the human mind? Is the technologist who develops the applications of scientific tools available to us more useful than a scientist who does fundamental research in an ivory tower? Can there be technology without first and foremost the development of the human mind in the vast space which represents human intelligence, which then focuses onto a particular specific area of research and application? Can there be a Bolshevik Revolution without the abstract political philosophy of Karl Marx? Can there be a virtual world without the lunatic ideas of the person who created an electronic revolution? In the world of technology, in a world driven by technology and eventually dependent on it, can there be technology at all if no one has philosophised in the past about a newer, braver world? Can there be a virtual world without a real counterpart?

These are the disturbing questions which must exercise all of us because a nuclear weapon in the hand of a megalomaniac, a virtual world ruled by a lunatic, can impact the real world in a wholly destructive manner. I wish the answers were easy, but certainly we need to engage in debate, not on the issue of setting limits to technology but to find the ways by which technology can remain the servant of man and not a replacement of man.

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