

Convocation Lecture

Federal University of Agriculture, Abeokuta

27th January, 2020

The Beast Unburdened Once Again: Artificial Intelligence and Life More Abundant

The University Pro-chancellor, Vice Chancellor, Registrar, Bursar, members of the University Council, the Chairman, Committee of Deans, Deans of Faculties, members of the senate, officers of the university, professors, lecturers, the graduands that we are honouring today, their parents, friends and families and most importantly, the students of this great pioneering university.

First, I must congratulate the graduating students for coming through an arduous process of training which can only be described as the academic equivalent of the survival of the fittest. It is a furnace requiring strength, resilience and fortitude. You have survived. You are the best and brightest of your set, and as the first set of graduates this university will produce this important decade, you must now go forth with hope and optimism to prove your worth and the worth of your teachers.

Second, I must thank the university authorities for inviting me to deliver this convocation lecture which is coming at the dawn of a new decade. I must commend the university for putting up this elaborate spectacle which in its painstaking attention to details showcases the future possibilities for country and continent. Once again, it has been shown that it is not lack of talents that kills a nation but the mismanagement of talents.

Let me remind our convocats that they are graduating at a time of extraordinary political and social ferment both for our nation and the world at large. We live in unusual times; a time of breath taking technological developments and scientific breakthrough. But not unexpectedly, it is also a time of unequal benefits. While in some societies, the frontiers of knowledge and advancement is expanding dramatically, in other societies, particularly in Africa, it is contracting catastrophically.

This is the imbalance that all of you as graduates of a university with an eye to the future and with the knowledge acquired in this institution as well as your fresh energy and vision will be called upon to redress. This is why it is important to rub minds with this distinguished audience on the subject matter of this afternoon. This being a festive rather than an academic occasion, I intend to be brief and to the point.

My lecture rests on three major planks. I intend to disentangle them one by one. The first is the very notion of *the unburdened beast*. The second is the concept of *Artificial Intelligence*, or what is often initialized as (AI). The third is the philosophy of *Life More Abundant* or what popular folks and politicized individuals in the old Western region famously rhapsodized as *LMA*.

The Beast Unburdened

Permit me now to come to the notion of the unburdened beast. I must admit that when the title of this convocation lecture was first mooted, there was some concern among top university officials about the whole idea of a beast being unburdened. Would it not be thought that the beast I was referring to were the graduating students themselves?

It was only after the whole notion was explained that the authorities not only agreed but also insisted that the title must be retained. To have thought of graduating students as beasts would have been an unkind cut worthy of a killjoy and sadist. Let me reassure the convoking students that you are not beasts. As a matter of fact, by virtue of your training, discipline and directing knowledge you are the future masters who will tame the beast of technology for the benefit of the human society.

Let me elaborate. When we talk of beasts of burden, we are talking of hitherto wild animals that have been trained and domesticated by human imagination and ingenuity to carry load for human beings. It would have amounted to foolish daring and fatalism to mount a wild animal for sports and warfare or to attempt to turn it into a luggage courier. As a matter of fact, it is because the beast is unburdened of its savagery and wild instincts that it is able to become a beast of burden.

The unburdening of the beast led to a revolution in agriculture, transportation and warfare. In the early clusters of civilization such as Nok that stretched outward from the Niger-Benue confluence through the Egyptian civilization around the Nile river to the rich alluvial soil of the Tigris and Euphrates rivers and later in the Yangtze basin of China, the introduction of animals to irrigation, farming, ploughing, planting, harvesting and eventually to warfare opened up tremendous possibilities for human civilization.

For the first time in its history, humanity was able to leave behind the brutal necessities of the hunter-gatherer phase for a more ordered and civilized existence. To be sure and for quite some time there were still some enclaves of humanity stuck at the hunter-gatherer phase with occasional famine and excruciating material want their unhappy lot. But this was mainly due to the law of uneven development which allows the frontiers of human consciousness to take the lead in civilizational advancement while other less gifted societies struggle to advance.

This advancement by less endowed societies to meet up with other societies that play lead violin in the race for human development can be procured either through commerce, outright conquest or cultural infiltration through spiritual indoctrination and religious proselytization. It can also be a case of technology transfer through daring acts of espionage.

For example, in his history of the early Egba people, Ajisafe wrote on how the Egba people were able to procure a more sturdy and higher yielding variant of the maize crop from their old Oyo overlords through their local daughter married to the Oloyo who swallowed some of the grains to speedily vomit same on getting to her Egba homestead.

There was also the case of the young English sixteenth century immigrant to America who copied by heart the entire new procedure for corn milling which he then painstakingly copied down on

reaching his new country. He became rich and prosperous in his new home beyond his wildest dream and expectations. The world belongs to the brave and daring.

The point to note in all this is that human development is not static and no society is divinely ordained to take a permanent back seat in the race for civilizational advancement. As a matter of fact, it is a paradox of human development that the strength and resilience of earlier formations and initiatives may preclude a society from seeking new solutions to a fresh crisis of development.

It is a known fact that England was better enabled to transcend the contradictions of feudalism and leapfrog to the *Industrial Revolution* ironically because it belonged to the periphery of feudal formations whereas more classically feudal formations such as Ethiopia, India, Pakistan, China and Northern Nigeria roiled in the contradictions for much longer, a case of the first becoming the last.

In all this, one regular feature of human development is the uncanny presence of huge human population whenever there is a great problem of civilizational advancement to be solved. As we have seen with early civilizations such as Nok, Egypt, Mesopotamia and the Yangtze basin, the presence of great rivers tends to attract unusual human settlements. This rich conurbation in turn facilitates and aides progress and innovation through sheer dynamism and the ferment of ideas.

Artificial Intelligence

To *Early Man* and his precursors, the very idea of putting animals to work on the farm or deploying them to carry heavy luggage on the highway, must have sounded like some outlandish fiction. About three hundred years ago, the very idea of sending machines on human mission, or infusing them with enough intelligence to make them take rational decisions must have sounded eerily unrealistic; a return to the magical world of fairies and spirits. It was only in 1956 at a conference at Dartmouth college, New Hampshire, USA that the term “robotic artificial intelligence” was coined.

It is a profound testimony to the power of human imagination that advances in sciences and technological breakthrough always appear like fantastical constructs or imaginative conceits to their precursor societies. Long before the arrival of the real thing, the science fiction of writers such as Isaac Asimov and H.G Wells brimmed with outlandish space crafts, shuttle ships and all kinds of robotic monstrosities.

Yet within a space of two hundred years, what was regarded as science fiction has become part of conventional reality; what hitherto existed in the realm of outrageous imagining has become part of everyday chores; unreality has become realistic. In retrospect, it is now obvious that H.G Wells spoke too soon when he sang about a brave new world of scientific revolution and industrial breakthrough.

With the advent of the phenomenon known as Artificial Intelligence, humanity is at the threshold of an unprecedented and revolutionary breakthrough; an explosion of a rash of possibilities in a way that is beyond ordinary scope and conception. In a way, it can be said that Artificial Intelligence has brought humanity to the frontiers of de-humanization.

For the first time in the history of humankind, the wheel of progress and scientific innovation has turned full circle in such a way that humanity is in danger of being dethroned and replaced by his own creation; the hunter is in danger of becoming the hunted. On its way to the final triumph of

mastering everything in the universe, humanity is ambushed by his own hubris. Once again an ancient morality play of biblical import is unfolding for humanity.

What then is Artificial Intelligence or AI as it has come to be known in scientific circuits? As the name implies, Artificial Intelligence is non-human or machine intelligence. It is the equivalent of breathing life and intelligence into machines in a way that makes them capable of obeying instructions or undertaking independent missions requiring human intelligence .

Not to be confused with *Robotics or Robotic Engineering* which is a branch of technology that deals with machines(robots or bots) that has the capacity of executing various actions solely on their own without external prompting, *Artificial Intelligence* deals with issues that pertain to learning, perception, problem-solving, logical reasoning, intuitive understanding and language perception.

It can however be seen that the two are often coterminous and organically related to each other. Like Siamese twins they are dependent on each other and one can hardly exist without the other. The intersection or bridge between AI and robotics produces artificially intelligent robots (AIR) with their invasive and pervasive influence on contemporary life style and even work ethics.

The impact of artificially intelligent robots on our daily life is so all-encompassing and so routinized that we are no longer shocked or perplexed by its revolutionary dimensions. When we give commands to an ATM machine, we have become so habituated to this humanized contraption that it feels normal and familiar. Yet this human machine is a product of a convergence of what is known as General Purpose Technologies (GPTs) wired with artificial intelligence.

Our smartphone is in reality a palmtop computer which democratizes banking and financial transactions through the use of financial technology (fintech) which abolishes the old fixities of traditional banking thus enabling money and monetary instruments to be moved about the entire globe in a way and manner that eliminates virtual time and space. The impact on the old notions of labour and production can be better imagined.

In this wondrous new world, the home, the work place, the big cities and public spaces are dramatically transformed from what they used to be. There are soft wares that can recognize objects and animals; there exists digital virtual assistants that can cater or even anticipate their owners' needs and desires; simple tasks for factory workers; beauty creation(painting and artwork); self-driving or autonomous cars; drones for mail delivery, surveillance and security and for combatting terrorism including ground robots, tracking endangered animals in the wild and for locating and pinpointing the last surviving enclaves of human slavery.

In medicine, the deployment of artificial intelligence has had a revolutionary impact on robotic surgery; the restoration of artificial limbs, the warehousing of artificial organs and bionic eyes, gene-sequencing; DNA restructuring, the treatment of cancer and what is known as stem engineering and opened up new vistas in human reproduction and artificial insemination.

From all this, it must be very clear that after the era of artificial intelligence, the world will never be the same again. This is definitely the most far-reaching of human scientific and technological revolution. For good or bad, the world will never be the same again. But we can say that it is more for good than for bad. For the civilized world, it has opened up an era of surplus and unprecedented

prosperity. It is now time to move on to the last plank of this lecture, which is the whole idea of life more abundant.

Life more abundant

From the breath taking picture we have painted so far, there can be no doubt that the advent of artificial intelligence has opened up new possibilities for the human race. It has brought life more abundant to the denizens of western societies with food security and a great measure of security and safety. But what is life more abundant?

According to the *Google search engine*, the term abundant life comes from the bible verse John 10: 10b, “*I am come that they might have it more abundantly*”. More abundantly means to have a superabundance of a thing. “Abundant life” refers to life in its abounding fullness of joy and strength for mind, body and soul.

The concept and philosophy of life more abundant echoes the eighteenth century British philosopher, gentleman and reformer Jeremy Bentham and his declaration that the greatest happiness of the greatest number of people is the foundation of morals and legislation. This is the philosophical foundation of what has come to be known as Utilitarianism.

The greatest avatar of life more abundant philosophy in Nigeria’s history was Obafemi Awolowo who adopted the saying as the political war-cry of his party, *Action Group*. Like Bentham, Awolowo was a social reformer and crusader for the inalienable right of every citizen to access life more abundant. In five brisk years of radical social engineering, Awolowo transformed the life of his Yoruba people and ushered an era of unprecedented abundance for a people traumatised by centuries of war and ceaseless strife.

It is worthy of note that Awolowo achieved his social revolution through a radical agricultural programme which put food on the table through massive farming and the subsidization of farmers and which put money in their pocket by paying competitive prices for their cash groups. He also boosted human capital through the universal free primary education scheme and various scholarship initiatives. Needless to add that the establishment of cottage industries facilitated the emergence of an indigenous entrepreneurial elite which was the envy of the rest of the country.

This, in sum, is the essence of life more abundant for a people which simply means harnessing the power of extant technology and a visionary view of humankind liberated from the realm of brutal necessity to the realm of freedom from want and excruciating poverty. When compared to the new society of artificial intelligence, Awolowo’s revolution looks rudimentary and elementary. But it is a brilliant and accurate reflection of the dialectic of history at that particular point in time. It is now time to reassemble the major planks of this lecture and come to a conclusion.

Unburdening the beast

The picture we have been painting so far is of a future that became today; of a fantastical world that hitherto existed in the realm of dreaming and fanciful reverie that has been willed into existence through the sheer force of human intelligence and imaginative daring. The liveable world will never be the same again.

But the medicine has some remarkable side-effects. The brave new world has come with its unique combo of disquiet and disaffection. Much as we find its effects very desirable and the superabundance and prosperity that attend to the scientific wizardry a manifest testimony to the ability of humankind to create paradise on earth, the impact on our daily life has been unprecedented in all its disruptive and destabilizing power.

There is an uneasy feeling abroad that humanity is about to become the ultimate victim of its own intelligence and creative ingenuity. There is global anxiety that we might have arrived at the true end of history a situation in which the scientific beast created by humankind is about to devour its creator unless it is urgently leashed and reined in.

Machines are about to become our masters and contraptions created by humankind for the sake of humanity have assumed an independent existence of their own and may well be on the way to overpowering their maker. Without the emotional intelligence and rational nous of humankind, the world-historic apocalypse is better imagined.

Let us just give two concrete examples so that this does not look like mere scaremongering. In 1997, IBM's *Deep Blue Computer* defeated the reigning World Chess Champion and grandmaster, Russia's Gary Kasparov. In 2011, a new computer known as *Watson* also from IBM won the quiz show *Jeopardy* by overpowering reigning champions, Brad Rutter and Ken Jennings. What this shows is that machines can be imbued with such super intelligence that it can trump the most prodigiously endowed humans.

In the event, the era of *Artificial Intelligence* has led to a dramatic loss of regular jobs, the contraction of the work place, the replacement of humans by robotic machines in virtually all-human activities, helping scientists run real experiments, processing and incorporating megatons of scientific papers and outpacing ordinary mortals by doing incredibly fast mathematical computations.

Virtually everything as we know it has been spectacularly upended changing our perception of ourselves and the world in the process. The work place has become a virtual theatre, the old factory employee and farm hand are being gradually replaced just as the supermall is becoming a thing of the past as online shopping with speedy delivery and cost-saving incentives takes over. The old economy and its mode of production are replaced by knowledge economy and its new mode of production. The dominant capital is human capital.

The old schools, universities, tertiary institutions are profoundly affected as knowledge economy takes root in most parts of the world and as the old system of learning gives way to revolutionary means of wealth creation. Consequently, the old disciplinary order collapses and new disciplines emerge as an epistemological imperative of the new mode of knowledge production.

Unfortunately, Africa is missing once again in this drastic re-ordering of the world order as we know it. As it happened during *the Industrial Revolution* and with grave consequences for the continent, Africa is once again a passive repository of historical developments in other places. As we speak, and apart from the recent initiative of *Google* tentatively based in Ghana, there is no single worthwhile centre for *Artificial Intelligence* in Black Africa. This is at a time when Qatar has just established a whole *University of Artificial Intelligence*.

But all is not lost. This is where you all come in as fresh graduates, despite the constraints and crippling limitations. I am aware of the efforts this pioneering and innovative university has put in despite the severe limitations of funds and opportunities and I commend the authorities for their heroic efforts.

Consequently, you must not see your degree as an end in itself but as a means to an end. When the sky falls, it falls on everybody. There is no hiding place. You are graduating into a world in which the beast of technology threatens everything including modern civilization as we know it and the survival of humankind itself.

Your education is designed to furnish you with the basic tools and basic awareness for survival in an increasingly complicated world. In the short run, you will be expected to join forces with growing international efforts to rein in and unburden the beast of modern technology of its savagery just as our ancestors did to wild animals epochs ago.

How you do this will depend on your ability to retrain and retool yourself. It has been shown time and time again that Nigerian students excel when they found themselves in competitive environments and they also show a remarkable capacity to survive adverse local circumstances. These are redemptive resources waiting to be harnessed for national development. It is not the future we must fear but the fear of the future.

In the long run, you must also see yourself as part of a growing concern to redress the structural imbalance and the geo-political adversity that has put Africa at the bottom of the ladder of the knowledge economy and that has turned Nigeria to the poverty capital of the world. The two are organically related. With only seven per-cent of its arable landmass under cultivation, China has been able to abolish hunger and banish extreme poverty.

In ending, I have two recommendations to make. The federal authorities in partnership with well-heeled Nigerian entrepreneurs must find the will and the means to establish in the nearest future, centres and institutes for Artificial Intelligence which will power cutting edge innovations in knowledge-industry and Agriculture.

Second, and as a matter of urgent national imperative, we must constitute a board to be known as a ***National Initiative for the Recovery of Intellectual Treasures (NIRIT)***, There are many Nigerian academics who have been trained or retooled in the global sanctuaries of knowledge revolution who have withdrawn from the nation in sullen and angry retirement whose expertise can be deployed to make the nation great.

I wish you all life more abundant hereafter. Thank you for having me.