

Letter to 21st Century Manager

Dear Sir/Ma,

Reflections on the Future of Our World When Machines Take Over and What Managers Need to Do About It

I am aware of the difficult task ahead of you - to lead our complex society with over seven billion people to prosperity. As the technological revolution took a giant leap with the proliferation of artificial intelligence (AI) I thought it would support managers to achieve their task faster and shape the way towards a period of global prosperity fueled by the innovative and transformative power of digital technology. But it seems that prospect is not going to hold anymore since the arrival of robots. Significantly, AI presents the biggest challenge to the 21st Century society; and management being the most important organ of the society should be very thoughtful in how they shape the future of the society in the face of this existential threat – and that is, I think, a challenge for everybody.

Therefore, I am writing you this letter deeply concerned about the future of our world and the threat that AI in the form of smart machines is encroaching on knowledge work to such an extent that it will lead to widespread unemployment and its accompanying calamities. I am trying to imagine the future of our world when these machines take over – at least that is one thing I could so uniquely do as a human being - and I humbly ask you to imagine, feel, reason and empathize along with me in this letter.

Why We are Worried

It is said that by 2030 most of our jobs will be automated because it would make production cheaper and faster. This means that machines will take over most of the jobs that humans normally do to earn a living and so many workers will be replaced by machines.

Work is an essential part of being human and every human person has the right to work to earn a living! Could you imagine what will happen if there is no more work for people, especially young people in the society? Perhaps the February Revolution of 1848 in France and the thread of Tunisian and Egyptian revolutions are good reminders and warning. That means generational conflict looms as the industrial age, which puts the human being on the central stage and provides jobs for people, draws to a close; in regions like Africa with increasing young population it is going to be unimaginably catastrophic!

Should we not be worried? Of course we should be! In fact we should be outraged. We cannot be happy and prosperous with this type of innovation that will not drive growth, create jobs and improve people's living standards unlike the glorious days of the eighteenth and nineteenth Century, the era of steam, electricity, combustion engines, etc, when (where) productivity-enhancing technology had always, ultimately, yielded more jobs than it initially eliminated and added great value to human life.

But I am also hopeful that we can turn AI which is supposedly humanity's biggest threat to humanity's biggest opportunity!

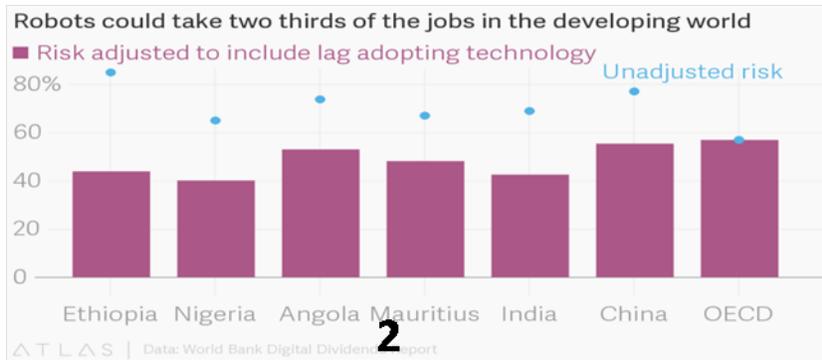
Imagine the Future of my Continent Africa in the Era of AI

Sir/Ma, please take your mind away from what the mainstream media report about growth and GDP in Africa, focus on the real story behind the headlines - the heartrending humanitarian

crises, the abject poverty, the alarming unemployment rate and the limited opportunities in the continent for the younger generation (and the little or no plans for their future) and the enormous human capital that lie unused due to lack of effective economic policies and conducive business environment that would attract investors and encourage businesses.

Do you know that, according to the Organisation for Economic Co-operation and Development and the African Development Bank, people under the age of 25 account for about 60% of total unemployment in sub-Saharan Africa? On average, 72% of the youth population lives below the \$2 a day poverty line, according to a World Bank survey. In Nigeria, my own country, about 63% of the population is under 25 and unemployment is at 23.9%, with youth unemployment at about 37%.¹ Thanks to foreign direct investment (FDI) which has helped to reduce unemployment in Africa by creating about 37 million new and stable wage-paying jobs over the past decades, but only 28 percent of Africa's labour force holds such positions. Yet, some 63 percent of the total labour force engages in some form of self-employment or "vulnerable" employment, such as subsistence farming or urban street hawking. If the trends of the past decade continue, there will be 54 million newly created jobs in Africa over the next ten years—but this will not even be enough to absorb the 122 million new entrants into the labour force expected over the same period. However, by implementing a five-part strategy to accelerate the pace of job creation, it is estimated that Africa could add as many as 72 million new wage-paying jobs over the next decade, raising the wage-earning share of the labour force to 36 percent.

Now my question is, considering the pitiable present state of Africa's economy in the face of devastating massive corruption and lack of vision of her leaders to turn things around, what will become of us Africans – the continent with the highest population of the younger generation - if machines takeover and (foreign) businesses (like Chinese companies scattered across the



continent and taking advantage of cheap labour) replace all humans in their factories and businesses with machines? Your guess is as good as mine!

AI is believed to have come at a very odd time in Africa; it was supposed to be Africa's century to bloom - being a continent with a working age population expected to grow by 450 million people - if the robots had not arrived. Like China did at the end of the last century, Africa could have taken advantage of relatively cheap, semi-skilled labour in its youthful population, and finally diversifying the continent's economies into manufacturing and services as engines for growth. But AI seems to be a catastrophe now!

With a growing youth population, poor investment in education, low investment and consequently increased unemployment, and now the introduction of automation intended to displace and replace humans, Africa certainly heads to an economic, social and political catastrophic end.

Robot costs are falling about 6 percent every year, but the cost of wages is rising every year. Some businesses in Africa are already shipping their own robots to replace the expensive cost of human labour. According to a report from a London-based research organization, it could soon cost less to operate a factory of robots in the United States than to employ a human worker in Africa. The World Bank estimates that an average of two-thirds of the developing world's jobs is susceptible to automation. That means the continent could see its emerging markets shed jobs to

automation far quicker than in countries like Japan, where the move toward automation has happened, ironically, more organically through local innovation rather than imported machinery.

Rethinking Economic Strategy for Africa and the World in the Era of AI

Sir/Ma, I have to state here that proposing a new economic strategy that will spur growth and prosperity in Africa in the face of AI is not just an option but a priority! But the question is, what is the game plan? How do you lead? What is the theory of change? What should who do about what? How do you manage?

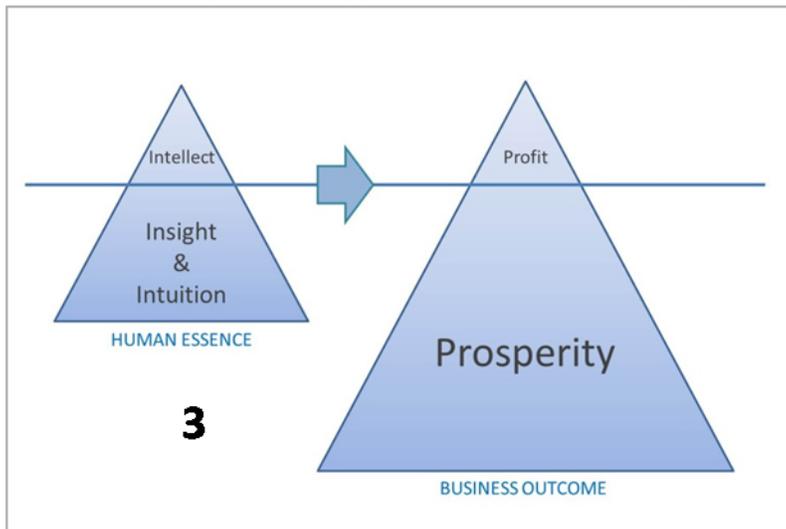
First, I have to put things into perspectives: deployment of machines to offset labour shortage due to high cost is an alternative while training workers to raise their abilities and perform better is the solution. Machines being alternatives could solve problems of labour shortage and promote speed but it is actually the full exertion of the human potential that creates opportunity for growth, innovation and inclusive prosperity. From that logical conclusion, I can propound two economic strategies which I would like to call the **Strategy of Solving Specific Problems and the Strategy of Creating Opportunities**. The former, as the name implies, solves specific problems, while the later creates opportunities to solve more complex problems in the society and adds value to human life.

We need an economic strategy that will spur growth at an exponential rate and accelerate the creation of 72 million additional wage-paying jobs by 2020 in Africa. This is also applicable to other countries even in the developed ones. If that is the case then it becomes imperative that the economic strategy that we need to adopt is no other than the **Strategy of Humans Takeover, the Strategy of Creating Opportunities, the Strategy of Solution** – and not the Machines Takeover Strategy, the Strategy of Alternatives. This important conclusion brings me to consider

the human difference (why humans must and should take over) and the role of management in making sure that expansive opportunity-creating Humans Takeover Strategy replaces the narrow, job-shedding Machines Takeover Strategy.

The Human Difference is the Key to Prosperity

Sir/Ma, a lot of questions surged into my mind which I tried to get answers from different people - tech-freaks and tech-skeptics alike with a full spectrum between the extremes - during my research before writing this letter to you. How can digital technology be leveraged to augment human capacity as opposed to automate and replace? Are there limits to the ability of machines –



should there be? What are these limits? How about limits on humans? Are we dealing with a technology issue or a mindset issue, technical or moral issue? Or both? Are we dealing with a generation gap? What does it mean to be human?

It was a long research, debate and consultations, and sometimes confusing, I must say, but in the end, Drucker's acute response that the major questions regarding technology and how it will be harnessed to lead to human prosperity are not technical questions but human gave me a new, different direction. However, I like the inspiration that I received from my aunt's story who agreed that, 'humanity cannot be modeled with algorithms and that humans must takeover! It is an arguable logic but in the end it proves to be an absolute truth! Perhaps, my aunt's story stood out to strengthen that fact.

She (my aunt) has been involved in complicated surgeries and procedures like Arterial Switch Operation (ASO) that required transferring a patient on a ‘heart-lung’ machine (i.e. temporarily stopping its heart) and clamping the aorta (the major blood vessel that carries blood from the heart to the body). As complicated as it can be, the operation warranted the patient to be connected to more than a dozen devices and instruments (machines). According to her, these machines have been helpful in the operation theatre, but they (machines) alone in such a place without humans would amount to disaster. By far, it is one place that is replete with intelligent technology, but it is being prevailed by human judgment, skill, reason, empathy, feeling, creativity, experience, imagination and confidence. Even though the machines can make incisions, do some checks whether the environment is sterile, ensure the items on the ‘pre-op’ checklist were intact, the success of the surgery which is the reason why the machines were introduced in the first place depends largely on the communication among the operating team - the humans. Just by the expressions on the surgeon’s face, guided by experience as he navigates through the latticework of blood vessels, the nurses knew what instrument he was in need of or the instruction to input into the machine. She said that there were occasions when the machines could not respond to emergency or malfunction that they would have to disconnect the patient from them and conduct a successful surgery without their assistance.

“Machines are not perfect, they also fail,” she said “and when they do humans takeover!”

All the while she spoke, I imagined what would have happened if neither of the medical team was qualified to handle the task assigned to the machines after they had failed.

Humans should be in charge of the environment, and machines are part of the environment. As with the medical line, while machines can just cut open the patient, fix, stitch and close him – the

human hand perfects the work of the machines which brings healing and restores life. This story affords me the opportunity to look at the technological revolution – with robotics, big data and artificial intelligence, cloud computing and the internet of things – through the lens of humanity.

The Role of Management

Sir/Ma, at the 6th GPDF, Richard Straub asked a rhetorical question in his opening remarks to the forum: “Have we reached a turning point?”

Today, I would answer that we have not reached a turning point, at least not yet; we have reached a crisis point.

This crisis was well captured in his speech at MIT, where entrepreneur Elon Musk called AI humanity’s biggest existential threat. While that might be true, but we can turn AI to become humanity’s biggest existential opportunity; I believe that life could be safer and pretty easier with AI around us. But this is only possible if management would embrace their role as the most important organ of the society as Drucker rightly said.

However, I would like to ask these questions: what if we begin to discuss how to harness and effectively control our machines to augment human abilities rather than the other way around? What if we seek a balance between humanism and instrumentality in designing and using technology? What is the role of 21st Century management in creating the future we want where AI would no longer be a threat but an opportunity?

A lot of ideas have surfaced about the role of management. Friedrich Taylor argued that the function of management was to increase efficiency and maximize returns. But that worked several decades ago during the reign of the rational economic man; we do not operate on

Taylorian standards anymore, we now have a deeper meaning and profound truth in the Druckerian ideas which presented to us the end of the economic man and the rise of the industrial man, a humanistic view of manager's function in the enterprise that leads to inclusive growth and prosperity of both the enterprise and the society.

In short management should:

Emphasize on the Human Difference and encourage an economic strategy that will put humans at the centre. Let me state categorically that Automation and Replacement does not show any managerial competence, in fact it reveals the loopholes in management which is the inability to manage people and their strengths for greater good and prosperity, to enable ordinary human beings to do extraordinary things as Drucker would say.

Humanise Technology so that it creates more opportunities for freedom, connection and inclusion. This is 100 percent feasible because technology and humanity are not necessarily incompatible; on the contrary, they bolster or augment each other's existence.

Focus on People not Numbers and challenge our current management strategy with its reductionist views of human nature which has led to a predominance of narrow economic and quantitative metrics. Managers have to give up the flawed measurements of efficiency and short-termism which has influenced the rational economic man to misallocate resources in favour of near-term efficiency to the detriment of market-creating innovation and long-term growth. Management will have to discourage absolute pursuit of efficiency to the exclusion of anything else which places them on the side of machines and the use of digital technology to replace rather than to support people. This is because innovation is leadership, and according to Drucker, leadership is lifting a person's vision to higher sights, the raising of a person's performance to a

higher standard, the building of a personality beyond its normal limitations.⁴ Managers have to empower people who will be prepared to solve problems creatively and not be scared off by technology. Managers should learn and teach their employees to work alongside with machines the same way they have with computers and calculators. These machines are really no more than a calculator or other pieces of equipment, so we really need to learn to work with them not against them. This may as well make more sense than putting human quotas in place or introducing made by humans label or business-stifling taxes. We have to prioritise innovative ways whereby the prevalent technocratic mindset – with its focus on quantification, algorithmic logic and pure rationality can be balanced by a rediscovery of what it means to be human.

Prosperity in the eighteenth Century saw the deployment of human hands; in the nineteenth century, we saw the deployment of human hands and brains; but today, with the complexities of today's problems, hands and brains are not enough, we need hearts and minds too! Machines have the chips, humans have the heart. We have to create a future that understands that prosperity or excellence is not just about the competition of knowledge but a competition of creativity, innovation, imagination and independent thinking. That means our future growth would not just be knowledge-driven and manufacturing-driven, rather experience-driven, wisdom-driven, creativity-driven and empathy-driven as Jack Ma opined.

Prioritise New Industries. Technology will take away jobs, but there will also be new jobs created by technology.

Conclusion

Sir/Ma, I would like to end this letter with this anecdote. Imagine Peter Drucker sitting in that beautiful Cambridge hall with brilliant economic students listening to John Maynard Keynes'

lecture. While Keynes continued to speak, Drucker paused; apparently he stopped listening and thought deeply within himself. Then he realized one thing: Keynes and all the brilliant economic students were interested only in the behaviour of commodities, while he himself was interested in the behaviour of people; he was interested on how organizations can bring out the best in people and he deployed his skills to achieve that over the next 70 years. That is what you, the 21st Century Manager, needs to do in this lingering AI muddle!

Thanks.

Yours Faithfully,

References

1. How can we provide enough jobs for young people in Africa?, by Ngozi Okonjo Iwuala, retrieved from <https://www.theguardian.com/global-development/poverty-matters/2013/jul/08/jobs-young-people-africa-nigeria>
2. Robots are set to take Africa's manufacturing jobs even before it has enough, by Lynsey Chutel, retrieved from <https://qz.com/1037225/robots-are-set-to-take-africas-manufacturing-jobs-even-before-it-has-enough/>
3. Human Essence as a Key to Prosperity. Part I of II, by Ellina Watanabe , retrieved from <https://www.druckerforum.org/blog/?p=738>
4. Management: Tasks, Responsibilities and Practices, Peter Drucker, page 288)