MAN vs. iMan

In the year 2005, I watched the movie 'i, Robot' for the first time. At the time I was thoroughly enthralled because Will Smith was playing the lead role. Like most growing teenage boys, the concept of robots in the midst of action packed scenes made me ecstatic. In the movie, the year was 2035 and highly intelligent robots had filled public service positions throughout the world, operating under three rules to keep humans safe. Detective Del Spooner (Will Smith) investigated the alleged suicide of U.S. Robotics founder Alfred Lanning (James Cromwell) and believed that a human-like robot murdered him. With the help of a robot expert, Spooner sought to discover a conspiracy that may enslave the human race.[1]

In recent times I have grappled with thoughts around the concept of the movie, particularly because of recent happenings in the technology stratosphere. A fourteen year old version of myself watched that movie purely from a 'science fiction' point of view (and I needed something really cool to say at school on Monday). I definitely wouldn't watch this movie in the same manner now due to the fact I don't think it's a 'futuristic' movie anymore. The ideas behind the 2035 timeline are already in existence; Artificial Intelligence (AI) is already with us, about 17 years prior.

Growing up in Ghana, I never met the apogee of the agrarian and industrial era however like other African peers, I am privileged to have experienced the convergence of the eras. In my early years, majority of adults participated in physical jobs like farming or factory jobs. Very few people engaged themselves in the knowledge economy. Over time, the script is being flipped but hasn't changed much. Majority of the population still do some form of manual work but the difference is that there are more young people completing university education as well. There are more young people aspiring for careers in the technology sector. The exposure to technology is mostly done through the educational system. My reliance on technology has grown steadily since my childhood. My family got our first computer when I was twelve and my first phone came at the age of 18. The first computer I had at home led to a heightened interest in technology and subsequently it grew into more than an appreciation. The development in technology has happened at such a rapid rate, sometimes it is hard to keep up. The educational system I benefitted from was focused on brain power and cognitive intellect and it still largely is. This has resulted in some semblance of balance in my human capabilities versus my reliance on technology.

The worry that was expressed in the movie 'i, Robot' may be a bit of an exaggeration in my world but may be more real for the already existing generation of babies being born who are reliant on computers. So the threat of losing our 'humanity' is imminent but the matter worth discussing is how we can maintain the human face of society in the wake of AI.

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[1] https://www.google.com.gh/search?q=Irobots+story+line&rlz=1C1CHWL_en-gbGH760GH760&oq=Irobots+story+line&aqs=chrome..69i57j0.5721j0j4&sourceid=chrome&ie=UTF-8

DRUCKER'S APPROACH

I believe to chart a forward course, we will need to understand why and how the world got to this point. In every era and age the world has seen, there has been a need to manage resources: human, natural, financial. In all of these management practices, the focus has been on maximising profit, most of the time at any cost. The world is experiencing the 4th wave of industrialisation where physical exertion and environment, technology and human beings have found common ground to foster greater economic growth.

Reading Drucker's text on *Managing Oneself,* my initial thought was to blame this overwhelming boom of technology on his theory. He states that people "will have to learn to place themselves where they can make the greatest contribution; they will have to learn to develop themselves"[2]. I was initially inclined to believe to a large extent that this concept has driven the tech industry; causing a surge in over-exuberant, revolutionary inventions in a bid to outdo ourselves. This has led to us being inundated by a plethora of applications which require countless updates. I however came across an analysis of Drucker's approach by Pepe Strathoff which captured the theory succinctly by saying, "*In Drucker's human-centred management approach, managing oneself is not about employing particular self-management techniques, but about asking challenging questions about how one works, where one belongs and what contributions one can make as well as about taking responsibility for relationships with other people…and making plans for life after retirement*"[3]. The key phrase there is …"taking responsibility for relationships with other people. I would prefer to use this approach to transform my world".

THE WAY FORWARD

Artificial Intelligence and its associated innovations are necessary in our world. The fact that institutions and corporations are constantly looking to maximise output by improving efficiency means that AI could make organizations more productive than they were a decade ago for example. When it comes to routine tasks, most profit driven organizations would opt for a machine to take care of routine and tiresome tasks. Robots are less likely to ask for a pay rise or organize a sit-down strike to highlight poor conditions of service.

If robots handle the mundane roles, it gives humans more room to participate fully in the knowledge economy. This could lead to more innovation and breakthroughs that could advance the cause of humanity.

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[2] Drucker, P. F. (2001). Management Challenges for the 21st Century. New York: Harper Business

[3] Strathoff, P. (2015). Managing A Cyborg – Managing Oneself: A Transhumanist Perspective on Human-centered Management: 1-2

My grandmother is eight-one years old but still strong for her age. I spend some of my days teaching her how to use her newly acquired smartphone. It is almost a herculean task but it gives me joy because I realised that some of the functions of her body such as her memory which are gradually deteriorating can be aided by applications on her smartphone. The family also gets to talk to her via video calls so she doesn't feel the neglect that comes with aging. Had she experienced this earlier, maybe planning for her retirement may have been much easier. I am of the view that in the health sector, advanced uses of AI or technology can significantly help with geriatric care. That being said, I do not believe artificial intelligence should be used in entire control of the circulatory system and the central nervous system of aged people or any person for that matter. If the human approach is not applied to the advancement of technology and in this case AI, we may experience a population crisis. We will be subjecting the human race to a state of immortality whereby when the natural body ages, rather than going through the natural process of death, humans will begin to transition into robot mode. Nature needs an equilibrium of activities to sustain it. I believe the birth and death of living things is one such equilibrium that should not be tampered with.

In the year 2017, the world saw a human-looking robot (humanoid) named Sophia. She was granted citizenship by the Kingdom of Saudi Arabia. This huge leap in the advancement of AI could be good or bad depending on the measures that are likely to be put in place. I think ascribing human worth to a robot completely defeats the entire objective of developing AI. Robots are supposed to function as servants to human beings. Whether we agree or not slavery for instance thrived because of the innate desire of humans to be served hence the modern day concept of caretakers and nannies. We all now seem to agree it is wrong to use another human being in a demeaning manner. Therefore the making of inanimate objects such as robots are supposed to serve that purpose. What human need does a humanoid actually meet other than merely being a mixed breed of man and robot? It sounds to me like a clear case of placing self-actualization above the more critical human needs.

We therefore need to push for AI that actually solves problems, real human needs.

I came into contact with Cortana in 2014, March 2014 to be precise. Cortana is Microsoft's AI virtual assistant. For days I got more accustomed to it and its features. I tried to find out its strengths and weaknesses during the trial stage. I grew very familiar and comfortable till one afternoon in July 2015. I had received an email two weeks earlier, informing me about an important meeting I was expected to attend. Ordinarily, I would immediately make a mental note and mark the appointment on my calendar but on the day of receiving the mail I got distracted so I forgot. I had it in mind to attend but I never took notice of the date. A day to the meeting however, I received an alert on my phone. I was expecting to see a call notification but I was wrong. Cortana was reminding about the meeting. On the day of the meeting, it asked me whether I needed suggestions on routes to take.

I was really excited I got that reminder because without that intervention, I may have missed the meeting. To be honest, I felt a bit pompous for a second. It indeed felt like I had

a personal secretary. That was my first real experience with Cortana and how important the application was to my life. I later thought about the possible permutations that resulted in this sort of efficiency. I realised Cortana accessed my mail and made my life simpler by reminding me. I got quite nervous at that point because I could not remember agreeing to that kind of access since it was a pre-installed application. I did not stop using the application but it made me always question how far AI applications can go in order to provide an almost perfect user experience. This example leads me to the next point I'd like to address.

On April 11, 2018 I watched Mark Zuckerberg's Congressional hearing concerning the privacy breach that his maximum opus, Facebook and Cambridge Analytica are accused of overseeing. I was surprised by some of the questions the representatives in Congress asked and the corresponding responses. I was particularly stunned by Zuckerberg's failure to address pertinent issues concerning individual privacy. An example of this was Congresswoman Anna Eshoo's question to him during the hearing.

"Eshoo: Are you willing to change your business model in the interest of protecting individual privacy?

Zuckerberg: Uhh..Congresswoman, we are..have and continue to make changes to reduce the amount of…

Eshoo: Are you willing to change your business model in the interest of protecting individual privacy?

Zuckerberg: Congresswoman, I'm not sure what that means."[4]

This brings into question what kind of responsibility and roles institutions need to play in this era. It is important to note that any institution that does not consider the human factor in the long term may lose out. Facebook started as a social network, helping to keep people in touch with one another. The company grew in leaps and bounds due to this factor. Over time it has evolved into a media company, a media entity that is expanding its frontiers. As a Facebook user for the last ten years, I can attest to its usefulness to me and to others on the platform. Over the years however modern incidents cause me, on a daily basis, to consider deactivating my account.

The level of breach in this case is very alarming and this can be seen in Zuckerberg's demeanour, somewhat conceding to being overwhelmed by the lack of proper oversight. Facebook already has an AI research team whose aim is to *"understand and develop systems with human-level intelligence by advancing the longer-term academic problems surrounding*

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[4] https://www.youtube.com/watch?v=rLTaTihwL2s

AI" [5] as stated on its website. I am of the view that not being able to prevent data breaches has significant implications on future AI development. If technology corporations in Silicon Valley and other parts of the world cannot assure consumers of total control and supervision of their inventions, then they have no business developing more intricate products that are likely to create more confounding challenges.

Many people still view technology as an isolated sector that operates in an entirely different context. The technology industry has not received the appropriate attention it requires. Most political systems seem to be overwhelmed by how complex technology is and have therefore developed a hands off approach to it. Governments need to take the bull by the horn by setting the pace through legislation and stiffer punitive measures for companies that are careless with data. Without roping in and attaching technology to development goals, it becomes difficult to track and monitor trends in the sector.

Institutions and management need to be aware that efficiency should not be placed above the human component of their organizations. The real component of any institution is not primarily its infrastructure or revenue but rather its human resource. If that is the case, institutions like governments and the United Nations need to be more proactive by creating governing bodies that will supervise the technology industry and ensure ethics are drawn in consultation with the stakeholders in that sector. As an individual I am guided by ethics, so are several institutions. There are ethical frameworks for potentially dangerous sectors such as bio-engineering and nuclear energy, the petroleum sector et cetera. We need to apply the same reasoning to machines in order to preserve the sanctity of humanity.

Human beings have the ability to be ethical on their own but that depends largely on the upbringing of the person. I wouldn't expect my child to learn about concepts like coding or programming (languages humans use to communicate to machines) when he/she hasn't fully grasped basic bio-social ideals like kindness, respect, writing and reading or any other pedagogic skill that will enable him/her interact better with friends or classmates. Leaders in educational institutions need to use emotional intelligence as a reason to introduce children at the elementary level to much more complex topics such as coding. It may seem harmless but could be injurious to the social skills of children when they grow up. Humans are essentially social beings and the complexity of the human mind cannot be created artificially. Developing the human brain is good but nurturing minds that produce positive thoughts, feelings, beliefs and consciousness should be the priority.

Institutions worldwide have come to accept Corporate Social Responsibility (C.S.R) as an integral corporate practice but I believe it must be taken a notch higher. Regulatory bodies need to reward institutions that maintain a human face in all their dealings and inventions. For instance, in the ranking of Fortune 500 companies, such a criteria can be included to

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[5] https://research.fb.com/category/facebook-ai-research/

measure performance, particularly for technology companies. The culture of innovating simply to gain profit must be highly regulated.

Measuring responsibility may seem like an idealistic view, however our generation has the benefit of hindsight with regards to the lack of caution concerning industrialization. We are in the early stages of a new phase of industrialisation and the catalyst of this revolution is technology, particularly AI. We have the best opportunity to plan for the future rather than leaving it to chance.

The earliest phase of the industrial revolution saw the use of coal to power industries and by extension to build nations. Hundreds of years down the line, we are dealing with global warming and climate change. Global warming did not happen overnight, it was as a result of the careless use of coal and destruction of the environment in order to propel the boom of industries. Climate change arguably, has become the biggest threat to the earth even more than war. As an African, I am more concerned because Africa has suffered the most from the effect of climate change even though it probably contributed the least to the emission of greenhouse gases. We should be able to avoid the errors of the past by learning from the mistakes. A more knowledgeable and informed generation therefore needs to act better by focusing on building AI around humans and to complement humanity, not compete with us. In this 'Fourth Industrial Revolution' era, we must avoid the temptation to build this industry in isolation. If that doesn't happen we are likely to create more devastating problems for the unborn generation.

I am a big fan of technology, machine learning and its related inventions and I believe the contribution of that industry on the world has been nothing short of phenomenal. Nevertheless, it is important to ensure we go by the aim of Artificial Intelligence for instance- which is to make life easier for human beings. The aim should be about supporting human functioning not to control human functions. This is the human centred approach. Machines are made for us and not the other way round. As more gadgets are getting connected to a singular network such as the internet and our reliance grows into a dependency, a classic control-alt-delete instruction puts the entire human race at risk. This is because we wouldn't have learnt to function without them. If on the other hand, we develop AI to the point where it subverts our democracy or transhumanism becomes the order, humanity loses as well. It is therefore important that Drucker's concept be given a strong consideration in the conduct of the AI industry. Humanity must own AI entirely so that we have a win-win situation.

If I met my AI twin will I be able to relate to him on a level as I would relate to my biological twin? Certainly not. My biological twin and I share our humanity.