From Fear to Faith: Learning about AI, our new Friend.

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How human am I?

He was a more experienced musician and wanted to show me the craft and nuances of programming Beats on the electric keyboard to ease our live performances. I wanted nothing of it. In fact, I felt a bit violated to say the least. Music as I knew it should be an expression of our purest emotions. Live performances were where we showed our dexterities and expose our vulnerabilities. And like all forms of arts, music should be left sacred. How dare he try to pollute such an opportunity to be fully human with something so trifle as technology? Kindly excuse my naiveté. I was a young man in my late teens but more importantly, I had up to that point unwittingly defined myself and by extension the whole humanity in a rather myopic way.

You see, I was born by the river in a densely populated little town squeezed between the Lagos Lagoon and the Atlantic Ocean. After a forced relocation of the town by the government of those days, my family found itself living even closer to the ocean. And here I learnt to appreciate all things nature provided us. My family had a little vegetable farm; we reared poultry, ducks and even had a family bird. My evenings at the end of school hours were filled with activities such as irrigation of the farm while my father ensured all the livestock were well fed. From the tasty sea foods to the freshly tapped palm wine, our meals mostly came from the source. At nights, the cool breeze of the sea eased off all tension of the day. Lying on our beds, we hear our hearts beat to the rhythm of the sea as the waters splash itself unreservedly against her banks. This was my childhood. I was lucky to have had a close interaction of some sorts with nature. And so, in retrospect, my reaction to the introduction of technology to our music was rooted in fear – the fear of the loss of my humanity. How irrational was that fear! But is that not similar reactions each generation of humanity through the ages has had, to the introduction of a new form of technology? Is it not human to fear that which we do not understand?

Industry 4.0 - AI impact on Society

If history be any guide, all industrial revolutions confronted major resistances from the civil society. It started on how the Luddites resisted mechanization in the textile and weaving industry during the first industrial revolution in Great Britain, to the rise of modern day trade

unions and strike actions with varying consequences across the pond within the then booming railway and mining industries powered by the advent of electricity in the second industrial revolution. The third industrial revolution was in no way different, the increase in computing power of computers, automation which increased production output and also the rise in the use of digital systems for communication and commerce which eased free trade of goods and services all culminated in globalization with the backlash of populist policies in attempts to protect territories from perceived or real economic threats. The fourth industrial revolution which is a cocktail of cyber physical systems, big data, advanced automation, synthetic biology, Artificial Intelligence faces the resistance of the Inequality that it might generate owing to Information Asymmetry.

What underlies these resistances in all instances is our fear – particularly the fear of loss of jobs, of livelihood, of security and possibly of meaning. I am of the opinion though, that we have a friend in this fourth industrial revolution that has come to help. But first, we need to understand it. And for our study case, I am going to single out Artificial Intelligence.

What makes Artificial Intelligence (AI); a key fore-runner in the fourth industrial revolution different is that unlike other revolutions before it, it has the capacity to take on a more human trait; Learning.

The Learning Society

Peter Drucker was once quoted to have said '*We now accept the fact that learning is a lifelong process of keeping abreast of change. And the most pressing task is to teach people how to learn'*.[1]

Asides from some primates like the chimpanzees that have been shown to be able to learn patterns and make decisions off them[2], the art of Learning has before now predominantly been a human domain. Learning in this sense means the ability to observe signals, recognize patterns, note forthcoming changes, prepare for them by bringing in all the required tools and take advantage of them accordingly for ones benefit. This is largely what makes us human. But here comes AI, which threatens to dethrone us. As per my short musical experience briefly touched on above, in an hypothetical case, while earlier technologies might have attempted to automate the beats which will keep playing until when tampered with, AI would learn to recognize changes in rhythmic patterns and provide alternative beats whenever the need arises accordingly. This potentially could render humans somewhat unnecessary in the

beats creation business. AI with its daughter technology; Machine Learning, are already being used by Google to produce *Nsynth*[3] – an AI based platform to help musicians produce original sounds by learning to combine defining characteristics of existing ones. It is expected to help musicians create better music. This is only possible because of the ability of machines to learn.

Learning therefore is a hallmark of a society that is preparing for the future. And for a future as sophisticated as this which AI is enabling, the ability to learn, unlearn and relearn will be a qualifier for every human.

This future is not just about music and arts though. It also involves other aspects of our lives – jobs and careers for example. Inspiringly, AI is particularly able to help here.

AI means Business

Sundar Pichai the CEO of Google recently made a public demo of their new product - Google AI Assistant product. He started by saying *'It turns out a big part of getting things done is making a phone call'* [4]. The Call Assistant in turn was developed to help make appointment scheduling seamless. Only the future knows how much time and cost savings opportunities will be achieved by businesses when their employees are not burdened with tasks such as meetings and appointments scheduling.

AI touches many industries as it is not bound to the High-tech space of IT and Media, Healthcare with the hope of personalized medicine, or even in the Mobility industry where Tesla is currently making strides with autopilot vehicles, but it reaches to even the so-called old fashioned industries such as Machinery and Plants Constructions. In my daily work as project engineer in an EPC (Engineering, Procurement and Construction) Firm, I work within a team of design engineers where we collate data from many sources about the feedstock, the required machines, assign the most appropriate conversion process vis-à-vis route and characterize the desired final products. All these steps are data-intensive and fertile ground for leveraging the power of machine learning. There is a move in EPC industry towards what is called iEPC, that is, intelligent Engineering, Procurement and Construction. This simply means adopting technologies such as 3D concrete printing, Building Information Modeling (BIM), augmented reality for maintenance and construction amongst others. Basically, AI

cuts across all spheres of business and there is no denying its momentous impact for us a people.

AI means People

To Peter Drucker, Humanity comes first; ahead of profit in the business world and as the essence of Work in the non-profit sector. He once said in his Essay titled the Knowledge-Worker Productivity: The biggest Challenge, that '*the most valuable assets of a 20th-century company were its production equipment. The most valuable asset of a 21st century institution, whether business or non-business will be its workers and their productivity'*[5].

Peter Drucker was clear on the priorities and of their right order of importance – Workers and then follows, their productivities, of which the quality of the latter depends on that of the former.

AI is a great tool that can be used for people management. In fact, for the very savvy businesses, they are already leveraging the power of big data collation, data analytics and the unique tool of Machine/deep learning to improve the bottom line while serving their employees. Case in Point, StatusToday; a London-based Start up focused on improving employee wellbeing does this primarily using patented AI algorithms. The technology enables a proactive look-out for the health of employees by tracking flow of emails, collaboration patterns amidst other data points to proffer data-backed wellbeing strategy for employees' work-life balance, and ultimately an improved productivity is ascertained therewith. Not to mention the cost-savings of employee retention. Another upside is it frees up the creative mind of the employees for even private endeavors that might have a positive spill-over effect for their employers. Ankur Modi, one of its co-founders believes '*AI is a fundamental milestone amongst enabling technologies of the future'* [6]. And I fully agree with him here as AI is that master key that opens up the power of other technologies (big data, cloud computing, Internet of Things IoT), giving them wings to fly. It is high time businesses start leveraging AI for their employees and certainly for their bottom line too.

AI means Governance

How should citizenry react to AI when personal data are sold to platforms like the Cambridge Analytica who end up manipulating election and politics? Not only were their privacy violated, their political Agency was also toyed with[7]. For many people I believe, this was their first major encounter with AI. That so many people will hence perceive AI with distrust is to

put it lightly. Thankfully, different government bodies particularly in the United States of America and the United Kingdom independently strove to regain the trust of their people in the new growing technology and regulate the burgeoning AI Industry.

Government and other policy makers have the twin duty of demystifying the technicalities of AI and secondly, douse the fear of employment that looms over the populace. The fear of jobs is as a result of the inequality of access to the skill set required to leverage big data and AI. New jobs will be created on the platform of AI but they will require high intellectual abilities while automating more predictable and routine tasks. Governmental policies should be targeted at democratizing the playing ground so like access to Internet; AI can be ubiquitous and made readily available for everyone willing to make ethical business of it. Governments such as that of France led by President Macron are doubling down on their faith in AI and this is positive vote of confidence for the technology and motivation boost for the next generation of technology enthusiasts[8].

Our future with AI

AI is a friend - a slowly approaching friend. And like a good host, we need to prepare for its arrival. Stephen Covey in his highly acclaimed book `The 7 habits of highly effective people' mentioned being Proactive as a top criterion[9]. AI unlike other forms of technology revolutions that were more or less instantaneous eases itself on us gradually and we have the chance to get ourselves ready. This preparation however is a three-cord strand depending on the cooperation between government, businesses and individuals.

Our Governments can though outreach policies help people not only grasp the technological essence of AI but also enable them find their place in it. One way to achieve this, to quote Ankur Modi, is to '*retrain on skills, keep a competitive edge on creative thinking and approach problems at global scale by default. Open and transparent AI can empower our decision-making in personal and professional lives, making us super humans within our own lifetime*[10].

Government and other affected institutions can set up programs to retrain knowledge workers who are willing to stay at the top of the new coming age of AI. Businesses can work hand-in-glove with the government to ensure ethical use of the technology.

Ultimately however, Personal responsibility of individuals will be the most important part of the AI puzzle. And a huge part of that responsibility lies on the ability to learn - to open up one self to new information and a new way of thinking about work and life in general. This means to fear the risk of being replaced by a technology and nonetheless learn to understand it and work with it. To cease to see it as an enemy but as a stranger who is gradually becoming our friend and great ally. We must be open to learning to achieve this. And to this submission, I believe Peter Drucker will say, Amen.

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