

## The Peter Drucker challenge, 2018

### AI, THE HUMAN POTENTIAL AND DEVELOPMENT

#### How changes, choices, community and knowledge play an important role in the 21<sup>st</sup> century

Just like yesterday's labour force is giving way to service workers who are in turn giving way to knowledge workers of today, will today's knowledge workers give way to Artificial Intelligence(AI)? Or will humans find a way to co-exist in this world of constantly evolving technologies and quick information, which is soon going to be run, partly if not completely, using Artificial Intelligence? Will that finally make the service workers and labourers extinct or will they evolve into a new generation of knowledge workers who will have a large dependency or partnership with artificial intelligence and an in-depth knowledge of how to use it to further their organizations and their own lives? *I firmly believe in the latter.* As a second generation entrepreneur in my family's medical device firm in India, I have, at different stages of my life seen different phases of management as the firm, set up by my father, evolved with the changing times and changing technology.

When I came across this challenge, the first things that popped up in my mind were not bionic-limbs or robotic-surgeries, but Cortana, Siri and the movie 'smart house' where a smart-home becomes so advanced that it tries to take control of the lives of the family living in it. With the technology that surrounds us; be it Tesla's self-driving cars, Amazon's Alexa, specially developed teaching applications (which can translate into fully automated classrooms in the future), food-serving robots, management-tools and predictive algorithms that can predict anything from the next word in your sentence to the next economic depression, I can easily imagine waking up one day screaming because robots have taken over the world.

A study from Showa University in Yokohama, Japan even revealed that a new computer-aided endoscopic system can reveal signs of potentially cancerous growths in the colon with 94 percent sensitivity, 79 percent specificity, and 86 percent accuracy<sup>1</sup>. My own firm has an ERP-system<sup>2</sup> that can accurately manage raw material inventory. Thus, we cannot deny that Artificial intelligence is now a big part of our personal and professional lives and has been taking over the human functions in almost every field known to humanity.

#### ***Does that mean that artificial intelligence will take over all the human functions? Will management no longer be a human function?***

As a student of management studies, I have come across many tools like software for data analysis, trend predicting and job allocation, websites - which through a series of algorithms can connect you to potential likeminded employers, employees and consultants and ERP-systems - which do everything from inventory calculation and maintenance to sales analysis. At the same time, as a part of a medium scale family business in a country like India (where it is difficult to access these tools as India is yet not at par with other developed countries in terms of

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1: (Norman, January 31st,2018) <https://futurism.com/ai-medicine-doctor/>

2: Enterprise resource planning (ERP) is a process by which a company (often a manufacturer) manages and integrates the important parts of its business.

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technology), I have also seen the use of human potential even for the jobs that are automated in this day and age. Thus having experienced both, I can easily say that the answer to the above question largely depends on these two factors:

#### **-The quality and quantity of data and the changing environment: Is the data static or variable**

“The automation in the near future of any task a human can do requires an extensive effort to gather a large amount of related, accurate data for any purpose, streamline it and use it to generate answers and solutions in any domain - provided that the domain does not change over time”<sup>3</sup>

While testing a modified version of the ERP-system used in my firm, we realized that we were unable to accurately predict our sales for the next three years as the large amount of data collected (based on previous sales of 5 years) did not form any specific pattern because of dependency on variable factors like customer preferences, number of doctors and the competing products at any given moment in time. Despite performing the time-consuming task of feeding all the relevant data into the system, our marketing-manager had to constantly update the data to get accurate predictions to make our sales strategy, thus proving that human intervention was required.

#### **-Choices and the human factor in management**

At any given moment every individual has, countless possibilities and most importantly choices that lead to  $n^4$  number of scenarios that cannot be predicted accurately by a system that works mostly on the basis of past data and trends taught to it. My ERP-system can't predict (unless advance data is fed into the system) that a doctor who gave us a business of 2,00,00 ₹ annually will suddenly retire in two years, leading to a decline in sales or that we would lose a couple of customers as our competitor's product will cost comparatively less. However, this very fact can be predicted by our marketing-manager on the basis of simple human interaction and knowledge of the market and customers.

Therefore, when using AI one cannot discount the human factor. In case of any organization there needs to be a human manager somewhere in the system to make accurate judgements based on their intuition, reason, experience, creativity and adaptability to the customer's unpredictability, something that cannot be calculated by AI. This is especially important in a country like India where social interaction, even in business, is very important, thus keeping management and leadership very much in the purview of humans.

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3: Mr. Gary Marcus, the founder of Geometric Intelligence and the professor of psychology at NYU

4: where n is a variable

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#### *AI and the human face of society*

While making the lives of urban Indians like me easier (google assistant to keep a track of my schedule), AI is at the same time subtly controlling our decisions (sponsored advertisements which in a way direct the choices I make). It has also gradually reduced the need for direct human interaction (online stores and social media). This is definitely an age where humans have comparatively less interaction with each other and more interaction with machines. Where humans are reducing the use of their actual potential, letting AI make their decisions. Since the use and impact of AI is inevitable, we need to make sure that humanity and human interactions remain. That we still maintain a human face in context of AI.

#### *The power of human potential and why it is so important to maintain the human face of society*

My father started his career working as a compounder in a doctor's clinic. His experiences in the clinic taught him that proper healthcare was still unavailable to the Indian poor. With a plan to do something about it, he approached family and friends with whose help opened a small manufacturing device firm in Vadodara, India. He used to sell manually manufactured products by visiting doctors and clinics personally. There were no software or computers to help him even with accounts. He and his people learned by talking with experienced people and a few doctors who gave them product knowledge. People were not ready to accept his products as they were unknown in the market. But he persevered and is now the owner of a successful medical device manufacturing firm, whose main aim is to provide affordable medical devices to people. He built his firm from scratch without the help of AI, with his own potential, leadership abilities and the potential of the people he worked with.

This is what human potential means. It means vision, hope, trust, commitment, imagination, dreams, creativity, reason and empathy that are still unique to humans. It means human interactions and contributing to the society. If people were so involved in technology, letting it control their lives, my father would never have noticed the need of people around him, others would not have helped him succeed and most importantly he and his people would not have had the potential to reach where they are now. We are a deeply social species who thrive on a sense of community and interpersonal relations in every field, be it social, political or economic and if we digitize everything, the lack of human interaction will make our organizations a prison for the human soul. And this is why the human face of society is important.

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The firm is now beyond its 20<sup>th</sup> year and I, as a second generation entrepreneur, have to make it even more successful in this day and age where the boundaries between man and machine are blurred. How do I go about it without disrupting the old values? How do I use artificial intelligence and technology in a way that enhances human potential without stunting employee growth while

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### AI, THE HUMAN POTENTIAL AND DEVELOPMENT

#### How changes, choices, community and knowledge play and important role in the 21<sup>st</sup> century

at the same time making the best possible use of what technology has to offer to us? What kind of leadership, talent and organizational culture will be required? How will I compete with the other firms that have a complete access to AI and other technology? This is where Peter Drucker's human centered approach comes in. With my father's knowledge and experience and my education the following can be the solution:

#### **-Decentralization and focus on employees**

One of the values of my firm is respect, appreciation and inclusivity of employees. We bring everyone from the manager to the workers together to achieve company goals. This is in line with Drucker's views on decentralization. He firmly believed that management was a human activity and that effective managers got things done through people. In a society where work provides many people with social status and a sense of community and commitment, it is necessary for a leader and a manager to have direct contact with the employees and a working relationship where they are recognized for their efforts and have a chance to contribute to the team and the organization at large.

#### **-Understanding the customers**

“A business is not defined by the company's name, statutes, or articles of incorporation. It is defined by the want the customer satisfies when he buys a product or service”<sup>5</sup>.

Peter Drucker believed that consumers were irrationally unpredictable in their purchasing decisions and only they could decide what value was for themselves. This fact definitely holds true as even doctors select a medical-device based on their comfort, price, quality and loyalty to a particular company. A CRM-system<sup>6</sup> would not know that a particular doctor asked for a “special price” as he was a friend of the CEO or that a pediatrician requires stents at a discounted price for treating underprivileged kids. My marketing-manager would know that because of the human factor mentioned before. Therefore, it becomes very important to maintain a personal touch with the customer in order to understand better, their changing needs.

#### **-Using interpersonal communication to reach the customer**

In this day and age when people are inundated with SMSes, e-mails and pop-up adds from a gazillion different companies; I think there is a certain appeal in researching a potential customer and interacting with them face to face. I understand that with the businesses going global,

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5: Peter Drucker in Management: Tasks, responsibilities, practices

6: Customer Relationship Management (CRM) is a strategy for managing a company's relationships and interactions with customers

## The Peter Drucker challenge, 2018

### AI, THE HUMAN POTENTIAL AND DEVELOPMENT

#### How changes, choices, community and knowledge play an important role in the 21<sup>st</sup> century

interacting face to face is not always possible but then that is what applications like skype and facetime are for! Think about how your inbox fills up with spam messages regarding this product and that product. How many times do you even open those emails or messages? Now think what would happen if a knowledgeable person asks politely for an appointment so that they can explain about the product that you actually need. Who will you pay more attention to? Will an auto generated message be able to compete with a one-on-one interaction? No. Thus, a special attention should be given to where a contribution can be made by offering interpersonal experience. Focus should be on quality rather than quantity of interactions and customers.

#### **-Creating a flexible working atmosphere: a new generation of knowledge workers and task force teams**

“Businessmen will have to learn to build and manage a human group that is capable of anticipating the new, capable of converting its vision into technology, products and process, and willing and able to accept the new.”<sup>7</sup>

My duty as the business-development-officer is to work on improving the firm. I have no fixed hours and have to keep on continuously researching, learning and implementing different ways of improvement. For each project, we make teams of relevant people from different departments, where everyone contributes their ideas and inputs leading to the growth of the firm. There is equal delegation of power as everyone is equally important for the team. Every organization needs to build task- force teams with shared goals where everyone has something to contribute based on their skillsets and interests. This leads to information equality and delivers better end-result. I am trying to create such task-force teams across the firm to make the firm dynamic in order to absorb the rapid changes that AI and technology bring. This can also be done by creating a more flexible work environment where the employees are well versed in more than one subject and are not bound by the constraints of time, place or job-responsibilities, so that they can be at their creative and competitive best in this world of reducing knowledge gap and increasing opportunities. This will give rise to a new generation of Knowledge workers who will be able to utilize their time in their own way and learn new methods to use the best of technology and AI to enhance their jobs.

#### **-Using AI is an enabler and not as a replacement**

In respect to any field, AI isn't necessarily about replacing workers, but optimizing and improving their abilities. Thus, jobs are not destroyed but merely modified. AI makes certain mental tasks

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7: Peter Drucker, in his book, the age of discontinuity

## The Peter Drucker challenge, 2018

### AI, THE HUMAN POTENTIAL AND DEVELOPMENT

#### How changes, choices, community and knowledge play an important role in the 21<sup>st</sup> century

much easier. It's making the world smaller and opportunities larger. However the issue with AI is that it is a tool that is not being used properly. Either easily automated tasks like drilling holes at regular intervals in stents are being done manually or tasks that are supposed to be done manually with focus, like driving a car, are being hoisted off on AI, leading to accidents. In case of my firm, the ERP and the CRM systems can be used as an additional tool for making tasks easier by converting a large amount of complicated data into something simple for analysis. By doing this we have essentially given repetitive tasks to AI, leaving the managers free to do cognitive, more emotional tasks.

#### *Translating the benefits of AI to the rest of the society*

“In modern society there is no other leadership group but managers. If the managers of our major institutions, and especially of business, do not take responsibility for the common good, no one else can or will.”<sup>8</sup>

Organizations work in tandem with the society around them and have a definite economic, political and sociological impact on the environment that they are a part of. While technology can be an advantage and make things easier for everyone, it is up to the public and private institutions to make **available and affordable** this advantage to the common people who cannot afford it. Then only will society progress as a whole. Example, we provide affordable medical devices to people.

The **economy** of a country also plays a very important part in new roles and responsibilities of management and institutions. Digital technology is often conceived of as a “great equalizer” —a significant means of economic development and reducing inequality. However, technology, like wealth tends to remain in the hands of a few. It is up to the public and private institutions to make sure that it ends up in the hands of all. Example, instead of preferring to buy medical-devices from foreign companies, the public and private hospitals can buy Indian devices thus keeping the money within the country.

In order to fulfill the above criteria **education, knowledge and information exchange** play a very important role. This is where the public sector has to make sure that schools and colleges impart at least a basic education in using technology and AI. At the organization level the employees need to be given opportunities to gain advanced education in various fields of their interest. Vocational courses for adult education need to include certain courses like how to use online platforms to create and further your own business or how to gain global connectivity in a disconnected world. Organizations need to share knowledge and individuals need to talk to each

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8: Peter Drucker in Management: Tasks, Responsibilities, Practices

9: NITI Aayog is the premier policy 'Think Tank' of the Government of India, providing both directional and policy inputs.

## The Peter Drucker challenge, 2018

### AI, THE HUMAN POTENTIAL AND DEVELOPMENT

#### How changes, choices, community and knowledge play an important role in the 21<sup>st</sup> century

other regarding the many new opportunities created due to AI and how use them for self-development. This eventually leads to the development of the society.

Recently Niti Ayog<sup>9</sup> decided to lay out a roadmap for India's research and development on AI and its applications in the field of healthcare, agriculture, education, infrastructure and transportation. This roadmap will focus on using Artificial Intelligence to aid in tasks like educating the poor via remote teaching, making basic healthcare available to all by trying to achieve country wide connectivity of a primary healthcare center to its tertiary healthcare centers, making global technology available to farmers for better yield and many more. Many private sector organizations have been roped in to assist with these efforts. This made me realize that **vision** is the most important thing that public and private sector organizations in India need. With the correct vision one can use Artificial intelligence as a tool to progress faster.

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In the end, I believe, it is a simple matter of *effectiveness vs efficiency*. While AI can be efficient in getting the work done faster, it cannot be efficient in making strategic decisions without human interruption or biases. And it is up to us to decide, whether we want to lose our way in the huge amount of data easily available to us, or rise to prosperity using the very information explosion threatening to swamp us. After all, we have the power to decide how much control we want to give Artificial Intelligence, which is ultimately, just another tool to be used to enhance human potential.