THE ARTIFICIAL INTELLIGENCE ERA ITS SEISMIC POTENTIAL TO CREATE A JOB DISPLACEMENT CONUNDRUM

Rishabh Patrawala
Indian School of Management & Entrepreneurship, Mumbai

Abstract

The AI era research paper takes a deep dive into the other spheres of work apart from tech that AI and machine learning will impact. For the paper, I have taken a top down approach, by understanding the global scenario of how AI is working its ways through the world in general before moving onto AI in India in particular. The intention was mainly to signify the employment plight that will be a concerning matter for all of us in the not too distant future. The reforms of digital India and the continued development of the AI institute of Hyderabad coupled with increased competitiveness in market would ensure that automation may become a daily adversary of ours. It is important to understand the principles of automation by supercomputers like IBM Watson or basic AI software that are efficient and cost effective in cases. The census shown that in a need to gain more market share the companies would not hesitate to cut any loose ends. The global factors of brexit, trade wars and especially tech start-up growth have ensured technology a more AI centric approach. Other technology also works hand in hand with AI in the form of block chain, IoT or even big data analysis will be the future pillars driving nation-wide growth. Such changes are especially harmful to people with blue-collar jobs, not mention the fact that India is predicted to grow as the largest economy in the future and have the highest population in the world. An AI imprint will certainly become a recipe for disaster in this case. Thereby I considered what could be the macro as well as micro implications of this in all our major sectors and finance in particular.

Keywords: Artificial Intelligence, Technology, Job Displacement
Introduction

Innovation and evolution are two partners that always move in unison, matching each other systematically. This is the DNA that has been infused into humans since the Stone Age, to perfect anything that seems imperfect and push the boundaries of innovation to its maximum. So no wonder there will come a time when we ask ourselves is this enough? When will we reach a level that curbs our limitless thinking and prevents us from self-imploding ourselves? Well, given the recent market indicators, such a time may be upon us sooner than we expect.

The advent of Artificial intelligence and machine-to-machine learning is changing market dynamics, making companies use the mediums to cull the competition and zero in on maximum profits. This modern day warfare obviously is creating several casualties, the most worrisome being that of the job market, something that may start a different kind of war in the not too distant future. The gaping link that is being missed here is that, behind the glitzy world of gizmos we live in, there are emerging technologies arising. In an economist’s, sense, that creates tremendous demand for a service or product that has the potential to disrupt. Therefore, its constant innovation is phasing the human touch, thereby creating a scenario where tech is the creator and assembler of major devices that one uses, creating a massive void in emerging markets in particular and the world in general.

Advent of Article Intelligence (AI) and Tech; AI was long considered a visionary advance, something that was a fantasy at best and the mere practical application of it wasn’t to be entertained by many. However, these days it has blossomed into a marvellous design, something that new age businesses run on. Its applications have spread from IT to education and aviation. The AI systems work on decision-making and key strategizing areas of businesses, some places where humans would be used to make critical decisions. Several top brands and industrial names are utilising its applications to replace or phase out the working strength of the firm with the efficient entities of the tech space. The current chatter in the crowd has been surrounding the wondrous gizmo that is AI and machine learning. From innovative new applications and large online traffic, people party enjoying the gift of is AI. Yet we seem to forget that every innovation comes at a price, this one is being sold to us with a doom warranty spelled upon it. Countries that are forecasting a booming economy for the future are currently suffering high
unemployment rates. China, for instance, has recorded its slowest growth rate in 28 years, with the rate having decelerated to 6.6% recently from the 6.8% earlier. Its prime problem has been unemployment. Yet we see Chinese investors pooling in vast sums of money into foreign ventures by record sales guaranteed via robotics and AI based softwares for their companies. The other governance factor for concern has been the pressing problems elsewhere around the world from Brexit, trade wars to global terrorism; nations have led their tech speak for themselves. The shuteye to let tech operate seamlessly is bound to create certain repercussions in the economy. Robotics and machine learning have enabled to increase the economies of several countries. Recent studies from the EU data have summarized that more than 47% of jobs are likely to be lost to tech in the future, with several experts summarizing a major disruption in the offing. An Oxford University analysis has suggested that this displacement will most certainly affect several sectors, creating 47% of US employee’s jobs to be automated in the next 20 years. McKenzie has dubbed such an event the jobs lost vs. the jobs gained scenario with 375 million workers at the risk of having their jobs automated by 2030.

The finance frontier; the sector that takes up prime focus right now is the finance space and the job department in particular for it. The analysis and numbers always highlight the efficiency that is created within the financial space. So in order to create a model whereby, one can create higher efficiency and reduced costs with limited space; AI is working its way in.

The financial world of stock markets and technical analysis are being pushed towards the new AI frontier, creating a scenario where there will be critical hands on skills being imparted based on machine learning and tech improvement. Firms near Wall Street and Silicon Valley have begun testing the AI waters to search for improvements in the finance space in particular. A big Wall Street investment house like Morgan Stanley has begun implementing AI to manage its clients’ money, a profession that is giving wealth managers a real scare. Morgan Stanley too has employed robo advisors, to explore new avenues such as algorithm trading, data mining and natural language processing to make their clients wealthier. The technology works by evaluating the communications a client makes with the position he wants to be in. The system then evaluates other ideas that can be suggested to the client.
Such a system would enable the advisor to be warned when a certain stock is on a downward trajectory. Mr Jeff McMillan, the chief analytics and data officer at Morgan Stanley Wealth Management said the machine serves up those ideas to the advisor which he consults with his client and takes a decision whether to act on it or not. It utilizes the data available to make suitable decisions based on the needs of each particular client. A few companies have also used the AI tech coupled with data mining systems to make future financial projections for the client. Wealth front, an advisor company in AI, has come up with its new software called Path, which uses third party data machine to provide answers on savings, retirement age and the luxuries you can afford. It was implemented in real estate financials, when it advised someone who wanted to buy a Condo in NYC’s East Side in 5 years’ time, that by buying it for a set amount then will be able to retire a couple of years earlier. It analysed the past data trends to predict the future financial trend lines and real estate price. The AI application is ascending at a rapid rate forward, something that is unprecedented, though the stock market operates on a closed system primarily fuelled by buy and sell agenda. A key insight on how AI will operate in the future took market world, was highlighted by the technology director at Goldman Sachs who mentioned how the value of AI is going to be driven up through big data. The more mature companies shall create a more compiled database using AI and then implement the software’s using these data driven models. This approach is further highlighted by their stance that states how machines were earlier used to follow rules, although now they will be programmed to run through problems and solve them on their own. A warning sign is being certainly sent to the various individuals involved in the buying and selling off shares and securities. Since financial institutions primarily operate with a lot of data and numbers daily, the big guns in the financial markets soon picked up this technology’s application. It made them realize how AI can be utilised to crunch up to millions and millions of dollars. They realized how in theory, AI would harness historical data and utilize the same data to create and evaluate the past decisions made by clients, thereby allowing determining their future decisions, something that enables companies to create high-level volume and revenue for their business.

In order to streamline the commodities market, AI tools are being implemented to ensure high volume trades are being connected, ones which have a higher certainty of yielding good returns.
Price suggestion has been a great motivator to the AI push. Utilizing complex derivatives, they are now able to make much more assured decisions. This also gives them a quantitative perspective on how to read the correct indicators in the market. Marcos Lopez of AQR Capital Management fund has suggested that the AI models in their firms are being utilised to create better algorithms and better AI usage theories. These theories shall help to create more accurate price determination models. Mr Lopez further added that this system could help pick up questionable trades that occur in commodity markets as well. He states algos can uncover the footprint a human leaves when manipulating markets. Therefore, a machine can sift through huge volumes of data to pick out the questionable trades that can then be more deeply scrutinized at a later stage by the authorities. The main aim and objective in commodities trading AI is fuelled to inject past data records of commodities into code lines and make the AI software identify the ideal commodities for the future. In essence, use past records to create large volumes of future profits.

The risk management space in the financial frontier also faces itself being at cross roads; from creating a sense, the best hands for risk management are their own, to deals with constant rumours surrounding AI’s accuracy. Risk managers and decision makers clearly need to become more educated about the threats that continue to be produced from artificial intelligence and machine learning. A few organizations are better than others are devoting resources intended to develop these systems internally, but major ones appear to not think they are of a greater importance, much less allocate resources specifically designed to address such threats. Risk managers do play a critical role in ensuring that management is aware of the potential threats while proposing solutions on how to combat these threats and implement a viable safety net, to ensure their smooth execution. There are three major cornerstones, which risk managers are seeing as a sign that their world maybe not be at a shrinking stage.

I. The first strike: The first one involves in the human biases that a machine may have been adapted from the data it has been inputted, if the data is based on someone making bias decisions. The system will adopt the same and create same decisions, though it will be in a more efficient manner. This would be hard to find and create problems for the company. However, recent software bases are being made to eradicate the bias component completely.
By programming, the system to overlook any questionable decisions made in the past by a certain individual.

II. The second strike: A second risk is that, unlike traditional systems built on explicit rules of logic, the AI’s neural networks deal with statistical truths rather than literal certainties. That can make it difficult to prove with complete certainty that a system will work in all cases, particularly in situations that were not represented in data profiles. Yet some systems at a prototype stage have shown signs of creating own thoughts and making decisions. This is a dangerous yet nonetheless viable solution to ensure that its decisions are full-fledged and are borne of certainties, provided they can be controlled aptly.

III. The third strike; this risk is that when machine learning systems make errors correcting the precise nature of the problem can be difficult. This leads to the solution set that may be unimaginably complex, may create a need to find an appropriate benchmark to find out. Since the pursuit, the fund managers are undertaking not the pursuit of perfection, but rather the best available alternative. One that can enable them to create a sustainable model that can aid for the future scenarios that they will be dealing with.

It has become imperative for Risk management companies to create a fool proof planning model, which they can use to create a competitive stand in their market. Allianz’s risk management wing has laid down the floor plan, of how strong AI applications in the future will be able to generate un-paralleled accuracy, when it comes to problem solving methods and creating sustainable solutions.

**AI and its Indian impact:** To understand the Indian scenario when it comes to the perception of Article Intelligence (AI) we must understand how the current demographics are working on the matter. The government has taken a two-phase process, the 1st step being the Indian government actively trying to scale up the national labour numbers, by giving more employment to youths and creating more jobs. Although the catch comes here when they also are endorsing AI and machine learning applications, as part of their digital India initiative. In the recent Union budget, interim Finance Minister Mr Piyush Goyal had a special mention for the continued growth of AI in the Indian landscape. The highlight point was the push being given to digital India. With $480 these is a million push being given to AI, machine learning
and Internet of things. AI in particular was given a special mention amongst this trio, a state of the art national centre to be opened soon. According, to a recent report from Accenture, AI that can perform tasks such as visual perception and decision-making without requiring human intervention has the potential to add $957 billion to India’s economy by 2035. The country’s AI industry is currently estimated to be bringing in $180 million in revenue annually.

Furthermore the government has promised to intensify its push for growth in the robotics and quantum communications avenues of technology. Arun Jaitley had mentioned the same point last year by saying “Digital technologies have played a key role in providing benefits to the poor. The global economy is transforming into a digital economy thanks to the development of cutting age technologies like ML, IoT, AI and 3D printing. Initiatives like Digital India, Make in India, Start-up India will help to establish itself as a knowledge and digital society.” These views and reforms are coming at a time when the opposition voices its views at how the unemployment rate is his a 45 year high at 6.1% highest since 1971-’72.

Another indicator that boosts AI’s increased presence in India is how 38% of AI professional in India are employed with large-sized companies such as Accenture, Wipro, Adobe, JPMorgan, Amazon, thereby, creating a scenario wherein the entire workforce management and operations would be under the AI given banner. Seeing how these hired professionals are vocal to create complete AI based management in the organisation, even start-ups have begun hiring AI professionals who can streamline their lower scale operations. Hence, we are creating a scenario wherein the major labour workforce in large-scale companies and in start-ups would be made completely redundant. A chart on this matter also shows how the real impact to the job market will be greatest for the low and middle skilled workers. The better skilled ones, who in most case will be proficient in AI, will not be majorly affected by these winds of change, hence creating a job crisis scenario in the country. This can be seen in the following table;
The following table shows how automation will affect the workspace environment following AI’s entrance into the finance markets. The data was collected through analysing the demand for workers currently and future estimates over a 4-year period. This will enable the low skilled workers to be massively displaced as compared to high and medium skilled ones. Their demand in fact will be on the rise. This is the reason because the basic level work of data maintenance or organisational logistics will be given to the AI base, it’ll be the key mechanisms of planning and strategizing that will give the medium and high skilled workers an ace up their sleeves, provided they prove themselves to top management. This is evident from the graph that shows how demand for low skilled jobs is solid, given the number of mid scaled, start-up and few large-scale firms yet requiring low skilled tasks to be completed. Nevertheless, the demand is predicted to fall 4 years into the future with AI cementing a footprint in many of this mid-sized and start-up bases, not to mention completely take the large firms. This has thereby shifted the demand to the medium skilled and highly skilled employees, given their higher expertise and skills. To keep up with AI, firms will need these individuals in a larger supply.

Economies of AI in India; the AI factor has still dominated into a niche market in the Indian segment yet its continued development has created a demand for skilled individuals to rival it. There is a need to grow on being less risky and more reliant on safe patterns while trading or investing in markets. AI has shown enough promise and skill to instil a phase of vitality and creativity into the financial sector. Through its early implantation, one fact has become evident
to its installers that there is a lack of talent in the Indian market to compete with AI applications. There is not a need for everyone to be a data scientist, but the capability to be able to match with AI’s performance is harder to extract as of now in India. The Ricardian model in economics proposes that labours performance is matched with its productivity and wages. For greater a wage rate there can be an equal increase in influx of demand and productivity. Therefore, for mid and large-scale companies that may adopt an AI based framework in the future, there will be payment cuts meted out to the employees to balance out the costs. Hence, such a decision results in employees having a sense they may no longer be wanted in the company, also leading to a move out of employees from the company. Given the rise to a position where the unemployed numbers maybe more than the employed, AI and Machine learning technology could transform many jobs in the Indian economy However full automation will be less significant than the reverse engineering processes that will be undertaken for a particular industry, once the technology is inducted into it. This is the trend of late, for Indian economists, but even those around the world, are in the pursuit of innovation and technological change. They are now working on statistical application that AI can have for the future markets and what this technology will actually reduce the cost of. These economists propose that usage of these machines work on prediction principles. These predictions make decisions for companies better and faster and cheaper; this creates two scenarios. The first is that there is a lot more prediction that takes place. The second being we will think of new ways of doing things for problems where the missing component was in fact prediction, self-driving cars being the prime example. Another factor being considered is the self-automation factor installed to create systematic trade patterns for investment banks; leading big players in the market are practising this. AI’s new landscape change has resulted in the following assumptions made on job sector impact. 47% of participants that were surveyed by PWC felt that job automation was within their sector and reasonably likely in the near future. Partial automation would be undertaken gradually and certain humans would be retained for specific expertise. The highest probability of automation was perceived to be within Manufacturing followed by Banking, Financial Services sector. The table below highlights this, taken from a consensus of people. The question is which sector is likely to have highest probability and lowest probability of automation.
The highest probability is based on Manufacturing, followed by Finance and then IT. Education though seems to fall the highest on the improbable chart, with most people seeing education being in humans hand for the immediate future. The reasonable probability chart shows that automation is likely and only certain skills of humans will be retained. The chart is based on people’s individual opinion of how they see the future panning out. The reason why IT does not get a huge percentage of the chart in most probability is due to the growth path. Most people see automation growth more in sectors where it has not grown. Compared to one where it has expanded seamlessly, has got IT a lesser share in that column.

Indian Impact point, the key factors that were seen as to why jobs could end up in the automation cycle and AI is in need to replace current human jobs. Since many participants are in favour of AI automation for they guarantee greater process efficiency and greater standardization. The two factors that still give human employees an edge is the human touch in interactions and contextual ability to analyse situations on a case-by-case basis. The other reasons vary along the survey lines taken by PWC were increased efficiency in the business workings, more scalability and growth for a company, lower dependency on workers, and biases can be eroded. Another major point that the survey spoke about was decreased scope in malpractices and erosion of erroneous judgements. In addition, the HR personnel who undertake recruitment for the companies said 55% of participants who identified as being responsible for
hiring talent, maintained a dialogue that recruitment is now being done to select individuals with skill-sets in AI. Out of the total 100% interviewed, only 17% have succeeded in providing application on the AI frontier. This highlights a vital point on how important it will be to know the tech environment for anyone in the coming times. An interesting pick these recruiters shared on the topics that will be required for the future are applied mathematics, probability, statistics, A certain number of soft skills to be had on hand were business intelligence and analysis skills, data governance. Along with a potentially boosted field in privacy and security, along with machine learning was considered to be at the top. It also has to be said that these skills and job roles would be upon us at an alarming rate. Given the digital invasion/age that India is moving towards; it will become imperative to be in knowhow of things, in order to ensure a survival. The risk management sector as well to reduce any gaps in productivity and to ensure maximum guarantee will create an AI reliant system, one devoid of human errors. This leads to many avenues in the financial markets itself condensed down severely. Creating the finance sector where jobs will not be of abundance, but actually of luxury. This makes the required skills mentioned above an imperative task to be known by all. Although, it is great to have these particular skills mentioned at your disposal, one could also survive by never missing an opportunity to make an impact in the workplace. A strong impression of any individual with his superiors and colleagues leaves a great impact for their cause. This makes the top management realize that though he may lack in AI skills, it is imperative to not let go of such an efficient worker. Such an impact can always balance you out in adequate skills that one may have along the AI base.

The art of fine decision-making: AI and its various applications will ensure accurate decision-making processes. This process will act as a guidance mechanism to ensure decisions are swift, precise and absolutely on point in getting in results. In an era where there is a growing importance for data analysis, growth, judgement and action, it has become important to instil a fine decision making system. This is where AI moves its foot forward especially in fields of strategy and planning. The prediction-based workings are imperative to determine a collective base on which one can make sound decisions. Though we may fight and try to prevent this from happening, eventually machine prediction, will take over human prediction. The manner in
which human prediction works is based upon biases, a fatal flaw that prevents growth and development from taking place in decision-making. The AI based system applies itself through a pool of past data mines to analyse and reach a clear conclusion. When it plugs in the algorithm, this enables the system to select the distinctively clear path to follow, and this is then instructed to the company to execute. Effectively, the machine has learnt the most favourable solutions by analysing past trends and signs, thereby predicting an effective future pathway to follow for the company in which it yields maximum revenue and gains growth. IBM’s Watson programme is an AI based computer that is known for its interactive base to communicate with humans, has specified it out that AI can make informed decisions for organisations that are accurate and effective. It has been worked to use not only the data from the past, but also the data it receives from various human interactions to ensure a systematic decision is being taken on matters that it has been asked to solve. Thus, we see the power tool that AI can become in a modern world where the human touch could be lost to us. Although there is a vital catch in this process, the predictions made are only useful as long as there is someone there to execute them, without action, it is of value. That is where the human touch makes an all-important contribution, for it is here that humans are required to put choose whether to put this prediction into action or not. This brings to another important part apart from selecting whether or not takes up the prediction, its human touch required to enact what the decision taken. This action requires human skills to be implanted and to execute to customers. For instance, if an AI system predicts the period where a fruit stays fresh it is the company’s decision to select how many units to buy, that is where action comes in. Hence, even though AI controls the decision and planning phase it requires an action to execute the order, where the human touch is still of prime importance.

**India and Watson:** The financial world to can be hit with a Watson like model in the financial space that will displace the work environment. IBM’s Watson AI base primarily works as a supercomputer that uses natural language processing and machine learning to break down large units of unconstructed data. The system can also be applied into revealing key insights for these large data and clarify on hand doubts regarding this data which has been collated. The use of this application in the financial world can be utilised for the purpose of conversion of
paperwork usage into a defined digital content. Although, such usage can be seen applied to other places as well, in several new fin-tech start-ups and existing finance firms, this will be a major reform. The simple reason being that, for one it reduces the huge chunks of basic data companies receive in the form of either job applications, loan processing forms, customer contracts and vendor registrations, etc. All these variables can be condensed down into a metadata coalition on a cloud system that can be managed by an AI base and provide timely record of all data. From experience, it can be said that while working at a leading finance institution, there was a sizeable chunk of paperwork that existed in the workplace. This reduces the efficiency to perform a certain task, as there was often time taken to source the paper work and process it through. AI promise is a speedy and efficient manner to solve this matter out. In a financial space, it is also key to keep important paperwork safe, along with making sure the context and importance of the document is known. Working with AI tools, documents can be used to not just extract the text, images and signatures, but also learn their context and importance. This can then trigger workflows to either file the documents away in a secure folder or regular folder (by giving the user an option), or send it to either a case management system or a accounts receivable for immediate attention. This reduces any time lapse in the document safely reaching a document to the concerned department in time and provides proper organisation to the distribution process. Such changes bring greater efficiency and will greatly reduce the tasks of workers in the lower halves of any organisation and finance in particular.

Another important aspect where AI can be successfully implemented is in the HR and hiring mechanisms. AI makes the recruitment process more data driven, by conducting not only screening of the resume, but adding context based on reasoning and relevant inputs for the designated job in the application process. AI works on taking the next step in terms of HR management by recommendation future career pathways for current employees. This is done by considering the interests and aspirations of the individuals, then proper motivation, building mind-set and other characteristics are inculcated. In a finance firm, in particular, this will help the individual to grow immensely. For it is great to get a valuable employee, but retaining him later on is achieved on a part art form and part algo form.
AI giving India a Robotic economy?

Under the recent indicators given by the government in its budget de-brief it has been shown how vital AI will become for the Indian landscape. This muddled with the fact that most companies adopting AI into the fold leaves the economy in the shape of a major upheaval. This will come in with more jobs becoming automated. It is believed by 20–30 percent of employers in India, that they anticipate a decrease in headcount, due to automation taking over low-skill, monotonous jobs. At Infosys, 11,000 workers have already lost their jobs to automation and 3,000 Wipro employees faced the same fate after the company deployed Holmes, its AI project. These occurrences leave no doubt that IT will downsize sooner, with job losses predicted to reach 6.4 lakh jobs by 2021. The government is thereby also adopting a policy of adapting and innovating AI in sectors beyond IT and consumer goods. The PM has briefed his cabinet members that AI inclusion strategies have to be introduced while formulating their policies. India understands that to make sure their economy continues to grow in the manner that it is, AI and Machine learning development as well must on the forefront. Foregoing it will run the risk of falling on the GDP and in turn lagging behind to China and US. Moore’s law further explains why AI will create a robotic growth chart for itself in the country. The law states that the number of transistors in computer chips doubles every two years, meaning that computer power increases and the relative cost of computer hardware decreases at an exponential pace. The outcome here seeing faster and cheaper computing power coupled with the diminishing price of computer hardware has attracted several buyers in the Indian markets. Such low cost and high efficiency base on AI models allows calculations to be made readily by AI frameworks and given the fact that some are capable to store billions of data points within themselves, thereby accessing past performances and rectifying flaws, if any, that was to be made by them. AI has already created a sizeable penetration in the Indian Landscape by exposing Indian users through digital economy bases of Netflix and Amazon to suggest products and services to the liking it’s made a footprint in the economy itself. From the financial base viewpoint, AI can certainly expand on creating a sustainable and efficient organisation environment one that has low risk and high returns. The government has certainly worked on creating initiatives for humans to skill up as well and contribute in the future economy. There is infusion of cash from National
Skill Development Agency, NSDC, and Directorate General of Training. There are over 200 Pradhan Mantri Kaushal Kendra’s, in 28 states that provide skill-based training. More than 13,000 in Industrial training institutes, both governmental and private, they are supporting over 23 lakh students in modernised and upgraded institutes of great standards and technical support.

There is also a need to conduct internal training between employees in the organisation; this makes sure that workers, mainly in the medium skilled and low skilled workers, can even skill up. An interesting viewpoint around the AI impact in finance firms around the mid skilled and high skilled employees displays something one should take notice of.

Future trajectory; the future trajectory of artificial intelligence is bound to spread throughout the world as I have mentioned previously. Its reach in India is quickly picking up as well, not only in various sectors but in our daily lives as well as shown by the Amazon example. Its roots are beginning to cement in the Financial space as well and thereby creating a serious scenario of job shrinkage. Thus, change is natural and its movements are swift and precise. However, we maybe on a future journey to reach new economic heights. The fact that a storm is brewing on the horizon must not be overlooked by any of us, it may lead to a collisional course damage we did not expect. The future of the financial space in the country that is gearing up for change is broken down into a 5 year and 10 year scenario.

**The 5 year planned prediction:** The 5-year plan in India displays the initial effects of how India will warm up to AI’s influence but similar to a life cycle it will spread out of its larvae stage and cocoon round the financial workspace, picking of each department with a bottoms up approach. The evidence is there to see with lower demand being expected for basic jobs. The analysing and trading but will yet be left to the pros but AI’s prototypes mixed with big data analysis resources will be able to map out opportunities for a firm. The shift will move from organisations being labour intensive to slightly leaning towards a more capital incentive perspective. Data driven models and efficient lower level management as base of operations will create banking and insurance agencies to adopt AI at a growing pace. The digital India initiative will further boost AI into finance firms and also spread its web into other sectors.
The 10 year planned prediction: In this phase, the cocoon that AI has spun around has come out as a winged creature full of vibrancy and brilliance. AI has stamped its authority as being here for the long run and is now way up the organisational food chain. It has made itself into the medium level skills base and taken over the aspects of trading and analysing how the stock market operates. This model has already been implemented in the US. With trading being left completely to Article Intelligence (AI) and the only employees the company hires are the technicians to fix the programme, in case any problem in them ever arises. The model seems to have taken its place in a few large-scale organisations but will require greater funding to grow into the financial hubs of start-ups and fintech. This period will manifest India and AI into a new beacon for the financial world, one wherein there can be maximum development being made and greater revenues generated. However, this period will also mark a large job displacement crisis if the trends continue like this. Hence, this calls for adequate measures to be in place for risk, wealth management firms and brokerage institutions, not to mention banking and insurance.

Note; This is a predicted analysis of what the future may hold in store for us, based solely on current indicators and signals that this predictive pathway has been formulated.

Conclusion

In the closing stages, it must be said that this type of technological change is on the horizon, run from it or fight it, the future will arrive faster. But even though it may send shockwaves to you seeing how your survival depends upon it, there is an escape hatch to this situation. Just like an army general does not think about the inner battles that happen with his army and the enemies, but about the bigger picture ahead which is the war, it becomes imperative to think about the long haul and realize how you can sustain yourself throughout this wave of change. AI can be outsmarted by being an impactful and resourceful individual, one who calculates each of his decision along each step of the way. This will create a special impression about him in the minds of his senior management and realize that he is someone who is too vital to be lost. So we must remember that even though the world moves into an AI era, it is a new dawn for us as well to take the challenge head on and remain steadfast and strong.
References

Ananya Bhattacharya, 26th December,2017. Human side of India’s robot economy.
http://www.digitalpolicy.org/human-side-indias-robot-economy/

Bernard Marr, July,10 2018. The Economics of Artificial Intelligence.

Darrell M. West, April 18th,2018. “The Future of Work: Robots, AI, and Automation.”
https://www.brookings.edu/blog/techtank/2018/04/18/will-robots-and-ai-take-your-job-the-economic-and-political-consequences-of-automation/

Forward thinking: Experts reveal what’s next for AI. 30 exerts from various fields interviewed on AI’s applications.
https://www.ibm.com/watson/advantage-reports/future-of-artificial-intelligence.html

IBA Global Employment Institute paper 2017. Artificial Intelligence and Robotics and their Impact on the workplace, by Gerlind Wisskirchen Blandine Thibault, Biacabe Ulrich, Bormann Annemarie, Muntz Gunda, Niehaus Guillermo Jiménez, Soler Beatrice von Brauchitsch. https://www.ibanet.org/Document/Default.aspx?DocumentUid=c06aa1a3-d355-4866-beda-9a3a8779ba6e

McKinsey Global Institute Research, June 2017. A Future That Works: AI, Automation, Employment, and Productivity. JAMES MANYIKA Extracts.
https://www.jbs.cam.ac.uk/fileadmin/user_upload/research/centres/risk/downloads/170622-slides-manyika.pdf

Professor Ajay Agrawal, April 2018. Article adapted from an interview conducted by Rik Kirkland, the senior managing editor of McKinsey Publishing. The economics of artificial intelligence.
https://www.mckinsey.com/business-functions/mckinsey-analytics/our-insights/the-economics-of-artificial-intelligence
Rohit Choudhry, and Kumkum Garg, 2008. World Academy of Science, Engineering and Technology International Journal of Computer and Information Engineering Vol:2, No:3, 200. A Hybrid Machine Learning System for Stock Market Forecasting.

Shashi Shekhar Vempati, August 11th, 2016. He is a digital strategist and a commentator on politics and public policy in India. Paper on India and the Artificial Intelligence Revolution. https://carnegieindia.org/2016/08/11/india-and-artificial-intelligence-revolution-pub-64299