

---

# **Impact and Preparedness for –Automation (with reference to 21<sup>st</sup> Century Youngsters-Under Graduates, Employees and Professional)**

**Pooja Kalla**

Assistant professor in commerce

Aurora degree college RTC x road, affiliated to ou

## **Abstract**

*Technology is a tool that can be used to change the world and it's a more powerful tool than any other we had before, which means technological change is something which is never ending process from Thomas Alva Edison's Bulb to Steve jobs apple Smartphone both have been a part of the revolution and people have been accepting all these changes as they were in the favor of human & society development. But the rise of robotic process automation has been capturing the minds of millions of employees on the global basis that their jobs would be replaced by robots. I believe change is something which is natural and every new wave of technology appears strange and little threatening especially for the people who have never experienced or imagined it. this automation era can be considered as science fiction. As told by an expert that we can use this technological tools to create a good society and bad society as well, the assumptions made by optimists' and pessimist that something is going to happen us but many researchers believe that it depends on how we respond to it in the Techno-optimist or Techno-pessimist manner. So the paper focuses on automation and its impact on employee jobs with reference to advanced and developing country. A country comprises of young and old population, so my second objective of paper is to study the gap between job ready and future-ready of 21st century youngsters as an individual (graduate, professional, and employee) and my third objective studies about qualities and skills required by an individual to adapt themselves in this changing world of automation.*

**Keywords:** Automation, change, employees, job, Technology

## **INTRODUCTION**

Automation is the concept which has gained lot of attention because of its impact on jobs at global basis, this technological wave of automation is the part of fourth industrial revolution and every revolution occurring in this universe has been and will be a never-ending process which is uncontrollable in nature, where as automation is the change of role from human to machine where humans will be replaced by machine in various fields of workforce and Tata steel's inextricably history is linked to that of India because The foundation was laid by Jamsetji Tata for Indian industrialization by starting a Tata steel plant that made a positive as well as powerful impact on workers from job creation, to job security jamsetji Tata a man of his times and beyond contributed for shaping the Indian industries by his powerful vision over future and hard work and humanitarian nature was successful, similarly we should also have vision of future impact of automation and how to cope up with this changes

## **DEFINITION**

The word automation has been derived from a Greek word called auto which means "self" where things are processed managed and controlled in an automatic manner by itself, the word automation was coined in the automobile industry about 1946 & the origin of the word was given by D.S Harder an engineer manager at ford motor company where Replacement of manual operations with electronics and computer-controlled devices. For example, Amazon started usage of machines like robot for loading of goods at warehouses in the year 2013

## **NEED FOR THE STUDY**

We imagine a 21st-century corporation designed to capitalize on connected systems, data, and employees who take a more expansive view of work, so to achieve that 21<sup>st</sup> century imaginary world of science fiction to make

it reality in real-sense and to have technological competitive advantage which makes every work to happen on the tips of a person by controlling a machine or robot which doesn't require much time at work place to complete job related tasks ,salary, and recognition who looks like a human with body parts of machine with no human emotions and problems called Robot and an employee balancing themselves with their work life with great fastness, innovation and being successful at giving right service to right customer at right time as a professional expert with unique skills and abilities with great determination and with a vision of adapting and working on a practical basis for every change for himself and also for other employees as a motivational leader inspiring and encouraging them to become future ready employee by developing and matching the skills required in this 21<sup>st</sup> century where work is becoming automatic by itself known as a new wave of technological change in industries called as Automation which is one of the part of fourth industrial revolution, This automation era is needed so that the work done by a person as a white collar and blue collar job which they do on daily basis like repetitive job related tasks, long working hours sometimes work with excellence and sometimes with errors which makes whole process work on hold or may be delayed for various issues like workers on strike for salary benefits, bonuses, or any compensation loss faced by a person in working hours or due to any other conflicts which may have negative impact on company and also to make positive impact on company and employees working in it by increasing the labor productivity, reducing labor cost, to mitigate the labor shortage ,to improve worker safety, to improve product quality, to improve manufacturing lead time, to accomplish process that cannot be done manually and to avoid the high cost of not automating the work. In view of this, it is necessary for us to understand this concept of fourth industrial technological change and overcome the barriers and adapt ourselves according to its current and future impact and prepare our new generation of 21<sup>st</sup> century youngsters who are at different stages of career and work life like undergraduates who will become future employees as well as the current employees who will face this impact before it passes through others in a realistic way

### **Objectives of the study:**

1. To study the impact of automation on employee jobs with reference to advance country and developing country.
2. To analyze the gap between job ready and future ready with reference to 21<sup>st</sup> century youngsters (under graduates, employee, professionals)
3. To study about the qualities and skills required by an individual in this changing world of automation

### **Research methodology:**

- ) The study uses the primary and secondary data. Primary data is collected through two different structured questionnaires that is one for under graduates and another for employees & profession and secondary data is collected through websites, journals, and magazines. A sample size of 100 comprising of 50 undergraduates students studying in final year and other 50 employees, professionals working in multinational companies of Hyderabad.
- ) An analysis of opinions from various under graduates and employees from various organizations was undertaken by research

### **Meaning**

A journey of a learner from primary level to graduate level is a valuable period of learning where their Ability is determined on the basis of grade which they get in their report card, they spend 16-plus years in gaining knowledge and developing themselves for the future and that future turning point comes when they are in their final stage of completing their graduation , before becoming a graduate students need to know that a college degree might get them in the door for an interview and increase their earning potential, but its only part of the employment equation as employers are looking for not only for what you know but also what you can do after all they have big pool to choose from. According to Forbes recent article, 88% of the employees are looking for cultural fit than a particular skill set for example does this person exude professionalism? Are they excited about the company? Are they confident? Do they crave challenge? Will they self- motivate and self-monitor?

Do they have the potential to become an asset to the company? But for students developing these skills needs a realistic view of work life like part-time job, an internship, volunteer work, and campus activities

**Definition**

According to Boris Fredrick (PhD), becoming job ready is a complex process. It requires a significant amount of preparation and most importantly it applies for every job that you apply for. In other words if you are job ready to be a employee in one of the corporate company, this does not translate into a person being job ready for a position in another company as every organization differs from another organization as they have different demands and expectations.

“A job ready person capitalizes on personal strengths, talents, education and experiences to bring value to the workplace and the community through his/her performance, skill, diligence, ethics and responsible behavior When students are job ready, they are prepared for the next step in their lives—whether that means getting their first job or beginning their college ‘career’ (which eventually leads to the workplace as well)! Being job ready also means being ready for life”

-Definition by (Nebraska Department of Education, 2009)

To become a job ready employee and to swim the river distance from undergraduate student to become a job ready employee following skills play a prominent role.

- ) Complex problem solving
- ) Critical thinking
- ) Creativity
- ) People management
- ) Coordinating with others
- ) Emotional intelligence
- ) Judgment and decision making
- ) Service orientation
- ) Negotiation
- ) Cognitive flexibility
- ) Inter personal skills

Dimensions of job ready

1.workforce preparation	2.communication	3.life management	4.decision making	5. customer service
Dressing for success in work place	Communicating with others	Time management	Locus of control	Providing prompt and courteous service
Developing a winning attitude	Body language, coping with change	Developing support systems	assertiveness	Managing customers request and concerns
Practicing positive self	Resolving on the job conflict	Balancing studies and other activities	Managing anger	Dealing with customer complains
Becoming aware of employee expectations	Being an effective team player			
Learning the corporate culture	Responding to feedback			

---

### Future ready

“Today’s workers need to approach the workplace much like athletes preparing for the Olympics, with one difference. They have prepare like someone who is training for Olympics but doesn’t know what sport they are going to enter”

- Thomas L. Friedman.

Automation era is the challenging and double edged sword. As it is the era were job are fast replacing that was once performed by men and women, to survive and become successful in this 21<sup>st</sup> century automation era skills are playing outstanding role if you are either a employee with low-level skills then your jobs are at great risk or with present scenario needed skills still your jobs are at moderate risk in both the ways employee jobs are at risk status only so to cope up and adapt ourselves with this upcoming change which is also considered as future workforce it is necessary to become future ready it is demanded and expected by not only this revolution but also company employers to retain them they want their employees to be sophisticated and arrive to be a future ,ready employee . So to be a future ready an employee must be **“right employee with right skills having the ability to complement technology and machines”**will be in a greater demand and command a premium in coming years”

To become a future ready employee the following skills are required at by an individual of 21<sup>st</sup> century (employee, profession)

- ) Great understanding ability about what robots and machines can do and cannot do.
- ) To identify the repetitive tasks in a job
- ) To emphasis on tremendous ideas in job, profession & entrepreneurship
- ) He/she needed to be and should be extraordinary to distinguish him/herself from others
- ) A skill which machine or robot doesn’t possess that is imagination, innovation, intuition and interpretation and inspiration
- ) Excellent differentiating skills for collecting information from internet vast data based world and developing it &to become competitive advantage for your company
- ) Knowledge of how and where to apply Predictive analytics and also to identify day-to-day trends in job, profession and business needs.

### Filling the gaps between job ready and future ready

The disruptive changesof technology has made us to think seriously from a perspective of making and wanting our new generation to become job ready as well as future ready but this change is not a new change as said by bhagwan chowdry that automation has happened before and where as job ready can be identified as pre-job ready and the gaps which are becoming barriers to transform themselves from campuses of a college as a student and to become an employee of a company at the same time expectations of every job, profession want them to cope up with the changing working conditions and adapting themselves as Techno-optimist compare to techno-pessimist and become a competitive advantage for the organization in different areas of work and train themselves from future point of view to become post-future ready

### A best suited quote

“Urgent action is needed from government, business and educators in order to build robust bridges into the world of work address the current expectations gap and avert the threat of a lost generation. We need more employers and recruiters to setup and play their part which is why we are supporters of the career alliance “

- ) First stage of gap is regarding education system at the level of schooling
- ) Second stage of gap is regarding educational training at college level (irrespective of +2, degree & pg)
- ) Third stage of gap is regarding the period of getting placed in a job, profession, business or any other in final year as well as their professors guidance to them for doing what he is interested or want to become according to their skill set

) Fourth stage of work life is regarding getting into the job of their own interest, being retained in the organization by learning & getting trained through experiences of work place and people around them as well as adapting themselves according to the organization culture, according to my opinion guidance plays a very important role

) Fifth stage of work life when it is the time to show this world what skill set, knowledge and abilities person has got from stage 1<sup>st</sup> to 4<sup>th</sup> in their actions by being an effective employee

) The Sixth stage not only involvement through actions and ideas of great future vision but also with the current trends going on in their particular area of workforce

As the stages of gaps from stage 1 of schooling education system which is going on in most of the places on traditional basis will not be suitable or fit in this technological changing world because we are failing to update our education, training and political institutions to keep up “warns Erik brynjolfsson, director of the Massachusetts institute of technology (MIT) initiative on the digital economy. “we could end up leaving a lot of people behind” as well as Paul Clarke, chief technology officer at ocado both, agree that school and college education need to better prepare pupils for a world where robotic and artificial intelligence will be widespread and it is needed that we bring change in the aspects of learning and working life such as The distinction between work and learning might need to become more amorphous,” said by Mr. chowdhry “we currently have a dichotomy where those who work need not learn, and those who learn do not work. **This concept of traditional work life that is 5 days a week & 8 hours per day should be changed in working life by allocating 60% of the time by doing their job and 40% of the time for learning on a regular basis.**

my concentration always has been on the people going through the first stage 1<sup>st</sup> to stage sixth 6<sup>th</sup> reason is our generation has got powerful people that is youth from age group of 15-29 years and according to united nation reports India has the world’s largest youth population despite having smaller population than China and China stands second in case of having young population the future of nations like India and china is in the hands of 21st century youth.

### **Impact of Automation with reference to developed country china**

) According to World Bank report, automation threatens china jobs to 77%

) China faces the large number of workers needing to switch occupations- up to 100 million is automation is adopted rapidly, or 12 percent of the 2030 workforce

) In the first major robotics conference held recently in Beijing, china’s robot ambition was made clear by the vice president of the People’s Republic of China, Li Yuanchao, that robots would be major priority for the country’s economic future

) China is one of the fast-growing economies in the world and one of the B .R .I. C.S countries

) China being the world’s largest exporter and importer of goods keeps good economic and social relations with another country

) China’s government has taken automation in a techno-optimist manner as they aim to double their per capita income by 2020 from 2016 levels with at least 6.5 percent annual growth.

) China is already world’s fastest growing market for industrial robots and continuing to be successful in next few years to be at the top.

) China’s current situation of robot the industry

) it is large manufacturing country

) Industrial robots are put to massive use such as automotive parts, electronics, chemical engineering, and machinery.

) As day by day getting the attention on the global basis for automation practices the local government in China are all accelerating their implementation of replacing human workers with the robot.

) According to data from an International Federation AI shows that the sales volume is small from local suppliers, while it is large for foreign suppliers.

) Because of aging population demand for a robot is increasing.

- 
- ) Government and policies support
  - ) In 2012, 12th five-year plan of the national natural sciences foundation, multi-robot cooperation and bionic robots(including autonomous control of robots and co-operative planning and control of multiple tasks with multiple robots
  - ) The 13th Five Year Plan (2016-2020), adopted in March 2016 by the Chinese Government, aims to implement ‘Made in China 2025’ and ‘Industry 4.0’ initiatives simultaneously.
  - ) Made in China 2025 aims for much higher levels of locally made content in core components and materials, increasing the levels to 40 percent by 2020 and 70 percent by 2025. • Industry 4.0 is expected to increase China’s productivity by 25 to 30 percent and lower unforeseen production losses by 60 percent
  - ) China’s government has taken automation in a techno-optimist manner as they aim to double their per capita income by 2020 from 2016 levels with at least 6.5 percent annual growth.
  - ) DaokuiQu, the president of Swanson, said that robot makers will be given the most priority and also to their requirements for development of flexible systems with advance sensing, as well as finding better ways for robots to toil effectively and safely alongside human workers.
  - ) The Chinese government is also eager to see its workforce diversify and its manufacturing industries become more technologically advance

### **IMPACT OF AUTOMATION WITH REFERENCE TO DEVELOPING COUNTRY INDIA**

- ) The world is changing with the phenomenal shift with technological advancements and every country need to understand and adopt the advance manufacturing needs
- ) Indian government initiatives for adoption of automation were
- ✓ Make in India combination of industry and the current internet of the things.
- ✓ Smart city mission to build 100 smart cities across India.
- ) The India's automotive sector is gaining a lot of attention and support from government in the following ways ,make in India project, introduction of GST and FDI policies i.e by allowing 100% foreign direct investment
- ) India is expected to become a major automobile manufacturing hub by 2020 in the world and contributing for GDP growth up to 25%
- ) According to holistic research by world economic forum the 2016 index highlighted the number of key issues like increase pressure to innovate technology , trailing out of rapidly growing digital population by business and companies, leadership and mechanism
- ) As we compare the rank of India in network readiness index in 2013 it was 61 were as India ranked 91 in 2016 out of 139 countries
- ) According to world economic forum report there is a huge gap between developed and developing nations ,it is due to digital economy has divided them into two segments top rank developed and developing nations into two segments
- ) It is necessary to understand and adopt 4.0 and face challenges
- ) To face those challenges the employee current skills and ability to acquire new skills as employees are affected by the changes in the technology in an organization
- ) According to IBEF, the government of India has set an ambitious target of increasing the contribution of manufacturing output to 25 percent gross domestic product by 2025,from 16% currently
- ) The internet of things being the most important aspect of industry 4.0 for India, is expected to capture close to 20 percent share in global IOT market in next 5 years. According to IBEF forecast, iot market in India is projected to grow more than 28% during 2015-2020
- ) According to world bank report automation threatens 69% of the jobs in India
- ) The First Chief Us Data Scientist Mr. D J Patel And Nandan Nilekani Showed Concern Towards India Saying Though India Being Filled Around With Great It Players Who Developed Various Software By Adding Up Features Like Upgrading , Their Jobs Would Be Replaced By Automated Process

- 
- J D j Patel Also Advised To 21<sup>st</sup> Century Youngsters To Prepare Themselves By Getting Trained In The Area Of Artificial Intelligence, Cyber Security And Health Care
  - J According To K. R Sanjiv, Chief Technology Officer Of It Services Firm Wipro, If Automation Is Not Planned In A Full-Fledged Manner , It Is A Disaster In The Making
  - J Automation Is Going To Effect 60% To 70% Of The Current Jobs And On The Other Hand Jobs Would Be Eliminated Partly Or Totally
  - J It Sector Would Lose Jobs Because Of Low Skilled Position By 6.4 Lakh By 2021
  - J According to us research one of the strong reason for this automation is non-customer facing jobs with low skills level in countries like India
  - J According to the reports of how automation is changing work choices by simplilearn online professional training company the new job roles like artificial intelligence , internet of things, cloud computing. Cyber security will dominate the IT work force
  - J According to professional training company simplilearn, automation will create newer career choices for it professionals
  - J It is said by kashyapdalal chief business officer of simplilearn that “ it is clearly the time of career pivot for it professionals to make sure they are where growth is
  - J The impact of automation is not limited to it industry but also in agricultural sector
  - J Whereas Tata group technology leader piyush mishra said that they are utilizing automation in positive manner i.e. for agriculture to improve the workforce and efficiency
  - J Dj patil also said that investment in the field of education and entrepreneurship should be done aggressively
  - J According to white house report on AI it highlights the challenges like
  - J entrepreneurial spirit and reward them and always challenge them to work for society and most pressuring problems
  - J according to Mckinsey report about 9-19% of work activity hours will get automated by 2030
  - J about 60-120 million blue collar jobs could be displaced by 2030
  - J there will be a necessity for 3 to 38 million people to change their occupation by 2030
  - J There will be not only negative impact of automation but also a great positive impact that is creation of 138 million jobs in India by 2030 which would balance rise and fall of job
  - J Countries with rapidly growing workforce like India may enjoy a “demographic dividend” that boosts GDP growth if young people are employed.
  - J The percentage increase in job sectors in India will be as follows
  - ✓ Builders( construction workers, electricians): 18%
  - ✓ Other jobs, predictable environment (machine, cooks): 27%
  - ✓ Customer interaction (retail sales, bartenders): 11%
  - ✓ Caregivers (surgeons, nurses) 3%
  - ✓ Educators (teachers, librarians) 2%
  - ✓ Managers and executives: 2%
  - ✓ Office support(payroll, clerks, data entry ) 3%

### **Findings**

1. The total number of respondents are 100 i.e. 50 undergraduates and 50 employees.
2. The age group of respondents in case of undergraduates is 19 years to 20 years where as the employee respondents were from the age group of 24 to 30 y.
3. The current status of accomplishing career goals in students is 32% of undergraduates have clarity about their goals and 14% are with clarity of achieving what they have decided accurately were as other want to achieve something in life but have no clarity about it.
4. It is found that the students ability to crack any interview is 24% students are confident, 60% are neutral about themselves and 16% are poor in it.

5. According to students opinion educational as well as placement training should be provided from the perspective of making them ready to face future challenges
6. The 21<sup>st</sup> century skills in students are as follows 62% are good at coordinating with others, 54% at interpersonal skills, and 52% at creativity, judgment and decision making, people management, 50% at complex problem solving skills, 48% in service orientation, 46% in critical thinking, 40% in emotional intelligence, 14% in negotiation and 18% at cognitive flexibility.
7. The change in the organization work encourages the employee for skill development and the organizations undergo for changes on every few month basis
8. It is found that 32% percent of companies are risk takers were as other 40% are neutral, and 16% are conservative.
9. The awareness about automation among employees is up to 88% were as in students it is 80%
10. The respondents come to know about automation through their own company as well as students from social media sources.
11. The employees and students believe that being techno-optimist and adapting to the changing environment is the best option.
12. It is found that 30% of employees and 60% of under graduates have fear of losing job because of automation.
13. It is found that 18% of employees are fully prepared for automation were as 50% employees are in the process of preparing themselves for the upcoming change and other 18% of the employees are ready to go with plan B , if they couldn't cope up with the changes in their work which they are doing presently .
14. The reasons for not being prepared for automation are lack of guidance & lack of execution skills.
15. The employees who feel they are fully prepared for automation is because of their current working process and their skills.
16. It is found that companies are not only motivating their employees for skill development but also conducting seminars workshops and training programs under the guidance of experts to make employee future ready.
17. The basic content skills in employees are in the following manner 54% are excellent in oral expression skills, 42% are very good at reading comprehension, 38% are good at written expression and 28% are poor in active learning.
18. The process skills in employees are in the following manner 66% are excellent in active learning, 56% are very good at monitoring self and other and 46% are good at critical thinking.
19. The cognitive abilities in the employees are in the following manner 62% are excellent at creativity and logical reasoning, 40% are very good at cognitive flexibility, 42% are good at critical thinking, 36% are poor at personal sensitivity and mathematical reasoning.
20. The social skills in the employees are in the following manner 78% are excellent at coordinating with others, 58% are very good at training and teaching, 48% are good at service orientation, 36% to 38% of employees are poor at negotiation, emotional intelligence and persuasion
21. The system skills in employees are in the following manner 66% are excellent in judgment and decision making, 58% are very good at system analysis & 24% are good at hardware and software skills
22. The technical skills and resource management skills in employees are in the following manner 56% are excellent at management of financial resources, 58% are very good at people management, 62% are good in time management, and 30% are poor at management of material resources,
23. According to employees opinion companies would provide the following options at the time of automation is process change compare to relocation and final settlement

### **Suggestions**

1. It is suggested that proper guidance regarding goals should be given as right guidance at right time and right response towards it can lead a great impact on student's career life and make them feel confident from becoming job ready to cracking any interview as well as ability to face challenges of future and retain and adapt themselves in the organization according to company culture.

2. It is suggested that students should be given not only theory based skill development training in colleges but also on practical basis which gives them idea of what work place means and internship opportunity should be provided at right place of work exactly matching to their interest and degree so that they can experience the real work place, at the same time without any attendance barriers in final year.
3. It is suggested that every employer should not expect that every employee is perfect at adapting to changes so the employer should handle those employee with patience and guide them motivate them that yes they have capability to do it by boosting their confidence by helping them in initial levels of executing the plan.
4. It is suggested that 40% of time should be allocated for learning new skills on regular basis in the organizations and educational institutions
5. It is suggested that the educational institutions and companies should interact and exchange their ideas so that it will give a great impact and understanding what companies expect from students.

### **Conclusion:**

The impact of automation has led to the loss of an unexpected number of jobs in China and India; still, both the countries have taken automation in a Techno-optimist manner by upgrading its manufacturing economy with the ambition of making out most of the contribution for GDP from it. The initiatives of the government policies for providing jobs to the people who may lose their jobs because of automation. There will be not only negative impact of automation but also positive impact that is the creation of 138 million jobs in India by 2030 which would balance rise and fall of the job. On the other side, the gap between job ready and future ready is causing because of lack of guidance, low-skill abilities, no knowledge of Real work place among youngsters.

### **References**

- 1) <http://theconversation.com/how-to-ensure-the-fourth-industrial-revolution-is-made-in-the-usa-81385728.7%>
- 2) <http://www.packagingdigest.com/sustainable-packaging/how-the-4th-industrial-revolution-will-impact-packaging-part-2-2017-10-027: 25.3%>
- 3) <http://www.thisdaylive.com/index.php/2017/11/01/how-will-the-fourth-industrial-revolution-impact-part-1/>
- 4) [k:https://www.huffingtonpost.com/craig-zamary/definition-of-the-fourth- b\\_13186346.html](https://www.huffingtonpost.com/craig-zamary/definition-of-the-fourth- b_13186346.html)
- 5) [nk:https://www.forbes.com/sites/jacobmorgan/2016/02/19/what-is-the-4th-industrial-revolution/](https://www.forbes.com/sites/jacobmorgan/2016/02/19/what-is-the-4th-industrial-revolution/)
- 6) [https://www.salon.com/2017/10/30/how-to-ensure-the-fourth-industrial-revolution-is-made-in-the-usa\\_partner/](https://www.salon.com/2017/10/30/how-to-ensure-the-fourth-industrial-revolution-is-made-in-the-usa_partner/)
- 7) [.. https://news.bitcoin.com/bitcoin-fourth-industrial-revolution/7 - R](https://news.bitcoin.com/bitcoin-fourth-industrial-revolution/7 - R)
- 8) [https://www.peoplematters.in/article/technology/get-future-ready-learn-tap-skills-11765?utm\\_source=peoplematters&utm\\_medium=interstitial&utm\\_campaign=learnings-of-the-day](https://www.peoplematters.in/article/technology/get-future-ready-learn-tap-skills-11765?utm_source=peoplematters&utm_medium=interstitial&utm_campaign=learnings-of-the-day)
- 9) <https://www.ft.com/content/1dbd8c60-0cc6-11e6-ad80-67655613c2d6?mhq5j=e7>
- 10) <https://www.itimanufacturing.com/chinese-manufacturing/chinese-automation-impact-global-supply-chain/>
- 11) [anhttps://www.mckinsey.com/.../Global%20Themes/.../Harnessing%20automation%20fo..utomotive\\_sector.pdfip://www.grantthornton.in/globalassets/1.-member-fir http://www.grantthornton.in/3.6%](https://www.mckinsey.com/.../Global%20Themes/.../Harnessing%20automation%20fo..utomotive_sector.pdfip://www.grantthornton.in/globalassets/1.-member-fir http://www.grantthornton.in/3.6%)
- 12) <http://www.thehindu.com/business/Industry/artificial-intelligence-imperils-india-inc-jobs/article19529813.ece>
- 13) <http://www.livemint.com/Opinion/W4q714J2fsPNWYQO7sqi0N/Robotics-and-automation-threats-and-opportunities.html>