THE REVOLUTION AND INDUSTRIAL RELATIONS

K R Shyam Sundar
Ph. D. [Economics]

Professor K R Shyam Sundar, the faculty at XLRI for Labour Relations, gives his insight into the fourth industrial revolution and it's impact on the workforce. He has been working as Professor in HRM Area at XLRI since December 6, 2013.

With his expertise in Economics, he has also worked as Associate Professor in Economics and Head, Department of Economics, in Guru Nanak College of Arts, Science and Commerce, University of Mumbai.

How do you see the 4th Industrial revolution impacting workplaces?

The term 4th Industrial Revolution is a bit ambiguous to many. It is basically the advancement of digital technology. So the third industrial revolution found itself based on the first phase of this digital revolution. The so called 4th industrial revolution that we speak of, is the second phase of the digital revolution. So this has to be very clearly understood because beyond digital what? The first industrial revolution was steam, rather than manually driven, 2nd was electricity rather than steam driven, 3rd was digital driven, thereby shifting the focus from industrial society to post-industrial society. Now what has to be understood is that whether there is anything beyond digital? Given our current frontiers of knowledge, it doesn't look possible. It might come a century later, but as of now there is a lot in common between 3rd and so called 4th IR. The impact of the 4th Industrial Revolution will be such that we'll complete a circle. Pre Industrial revolution, the workplace and the place of residence for people was one and the same, where journeymen or skilled artisans would work and stay in their master's house. We're now seeing a shift once again, where most of the work could soon be done from home itself with the help of increasing digital advancements. We may see the concept of a separate workplace can become redundant. Home based work in a positive sense is possible and we already have virtual factories.

What possible challenges can this bring for the Human Resources Department?

With the above impact on workplace, we can imagine a situation where the

traditional employer employee relation will change. So HR management will be challenged in terms of making direct monitoring. That would become very difficult. Employee contracts will be replaced by commercial contracts. Also, regulations are based on 3 aspects: defined workplace, employer employee relationships and tenure. None of them will be there. So a big challenge before both government and HR for altering the existing regulations. Another issue is demarcation because with the above said, hierarchy is under challenge. Delayering is already taking place and annihilation of hierarchy to a massive extent will happen in coming years. 10 layers could easily be reduced to 2. Now we question if we need regulations for robotics? Will humans have to find out how much work will be done by humans and how much by the robots? This in turn will also redefine the essential component of skill. Because for robotics, one makes them, one maintains them, one operates them, so who is the one with the actual skill here?

Based on your interaction with the industry experts, what was the impact of the first phase of digital revolution on the workforce?

It had significantly impacted all dimensions of the workforce. For example the CNC machines had replaced employees by 1 : 15 ratio in say the textile industry. It created a new set of skills and rendered certain other skills redundant. There are numerous other examples such as this.

Do you see this change impacting Industrial Relations?

IR will be impacted because it will reduce the workforce. The major criteria for the success of unions is to have more numbers behind them. So any new technology that potentially reduces numbers will segment the workforce into “high skilled” and “low skilled”. The middle layer will go away like in the IT industry, the middle layer has withered away. So beyond a certain point of time, maybe 2050 or 60, highly skilled people may not need unions and so Trade Unions will have a major challenge. Also workers may not have too many problems because with automation aiding the processes, the potential factors making the workplace risky will go away as in stuff like climbing ladders and cleaning machines needn’t be done. So TU will be challenged as numbers will reduce and the labour will change from unskilled to highly skilled and TU always thrives on Human Resources and Labour regulations. But when these two things are already challenged, needless to say that the TU will be restricted.

This is a big change for our society as a whole. What do you think?

I don’t think anyone can fight the technological advancement. For example, Luddites broke the technological advancement and smashed machines as they thought it was a threat to employment. When the first train was running through England they threw stones at it as they thought it was being run by ghost power. And as Datta Samant had said that when electricity first came, labourers were reluctant about it as they thought that now night shift will become a reality. So any technology coming on its own can’t be stopped. I see a very socially independent drive towards technology. Society hasn’t asked for AI. No manager asked for AI. Some people with a thirst for new technology have brought about this

revolution. Certain tech advancements like telephone and electricity have been very beneficial to the society. In the same breadth I cannot say that robotics or AI will be a complete boon. For example, Microsoft CEO Satya Nadella had mentioned that AI has been positive for the artisan as AI could give multiple

designs which couldn't be thought of by human intelligence. More designs mean more products which will create more demand and sell more leading to more income. So yes, it is one possible way by which the upcoming devices can benefit us. But I won't be comfortable to say that all 4th Industrial Revolution elements like robotics can be viewed in the same

Robotics replacing humans in the workplace. Is it a possible area for research in the future?

That is 'the area' for research in the future. The future of work will be determined by a huge amount of process transformation. Product may remain same but processes will change. Robotics for different industries may be different. So we'll have one set of industries making robotics, one set to maintain them and one set to use them in making products. The success of this digital era will also depend on demographics. It is okay in aging populations but not in places with a high number of people who can work. To use clichés, demographic dividend then turns into demographic liability. India is a country with 93% unorganized workers. They may be hit because outsourcing may be stopped. Now robotics and AI and 3D printing will take care of labour costs and machine costs. So outsourcing is gradually going to go away.

socially benevolent manner like telephone or electricity. Maybe we don't know how the society will be organized. But one thing is for sure that given the way there is a massive population density in lesser developed countries, I don't see a greater potential to be socially relevant as electricity or telecom as we still don't have all that also in the remote areas of many countries. To that extent, I think this revolution is by the elite, for the elite and of the elite. I have seen in the automobile industry how it has completely displaced workers. You need only 2 workers in 3 shifts to switch off and on and maintain the robotics. There are 3 arguments given in support of these things. One, technological advancement is inevitable and it may also arise because of regulatory aspects. Two, tech changes are for economic progress and as the economy progresses, it should lead to social progression. Third, I don't think people have a vision of society for the future. It was there in the pre industrial revolution but at the same time I should say that, all technological advancement made is first viewed with scepticism rather than jubilation. So it is perfectly possible that we are myopic. Technology per se isn't bad but how does it aid us?

What are the major challenges that the students who soon join IR may face?

I don't see major challenges imposed in IR in the next 3-4 decades. Yes, there would be very major changes. Technology they say will creep at first, then it's a wave and finally a flood. We are probably in the advanced stages of the technology creeping in. So HR managers of tomorrow will have to grapple with it, especially the regulatory aspect of work, the complementarity between people and machines. Also analysing the reduction in cost of monitoring. You have a big brother

watching you, so no supervisor will be needed.

To sum it up, in the next few decades, the importance of HR and IR will be more than ever before as there will be a conflict between the technology reducing costs and managing people and their self-actualisation. This conflict will rage. All marketing, finance etc teams will want to introduce more technology and HR could be isolated as they would have to maintain a balance to ensure that there are enough jobs to keep human dignity intact. It is a transition challenge and will keep on growing for people who work in manufacturing sectors, and services where product and services are very market oriented. This challenge can only be handled by HR and IR and I advise students to keep this in mind when they go out in the industry to add value to our society.