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Some Observations on the Global Transformation of the Workforce through Technology and
Artificial Intelligence
(Or Modern Times by Charlie Chaplin)

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1. Introduction

As far back as 1589, the tension, whether perceived or real, between job conservation and technological progress already existed. Indeed, as the story goes, when William Lee asked the Queen Elizabeth I of England for patent protection for his stumbling block knitting machine which would replace hand-knitting, the Queen refused: “have you considered what your invention could do to my poor subjects!”

More than 400 years later, I would submit that no one today would be denied a patent application over the concern with the employment impact.

Some scholars argue that the introduction of nonhumans into the workplace will have a severely negative impact on employment, while others argue that, as with the industrial revolution, jobs will change in nature but humans will still find employment.

I will not enter the debate on such impact and will leave that to the economists, sociologists and other professionals to debate.

In this short paper, I would like to simply address some of the key issues that I consider of particular importance on this topic of artificial intelligence at work, and humans and nonhumans working together in the workplace. There is ample literature in the general press, little in terms of actual legal writing, so I invite the reader to keep current through his own research on this topic.

First, a couple of observations on what is truly different in this “revolution”:

- 1) This is global — it is happening all over the world almost simultaneously.
- 2) It will affect almost all sectors, not only manufacturing and basic service industries.
- 3) It will affect not only blue collar workers but also white collar workers ... and maybe even professional services, even lawyers!
- 4) It is occurring with mind-boggling speed thus the real issue as to whether legislative change can really keep up, even if it wanted to.
- 5) Everyone should be preparing for this revolution and productivity accelerator — survival of the fittest.

2. Some words on the ongoing revolution

As I said in the introduction, I will not venture into the numbers issue as to the impact on the labor market. Suffice it to say that some predict 47% of all jobs will be impacted in some way

by nonhumans at work over the next 10 years. That may mean more unemployed, but may also mean workers being retrained to work in more meaningful and fulfilling jobs.

The key issue for HR is to begin to understand the power of robots and what they will be able to do, and to begin identifying what types of jobs are most likely to be impacted.

It is important to note that robots can function with almost all existing technology. This means that the onboarding of robots into the workplace can be achieved rather quickly and relatively inexpensively. Moreover, no computer knowledge is actually required to “teach” the robot its job.

As to the impacted jobs, overall, some say that if a six-year old can do a task, it will likely be robotized by 2025. The more repetitive and predictable the task, such as data processing or data collection, the greater is the chance of robotization. The more the need for expertise, physical agility and interactions between different human beings, the lesser is the chance for robotization. So, for example, education and any job requiring delicate handwork are less likely to be robotized.

The other key issue is to be mindful of the actual occurrence of the transition and to recognize it. As an example, consider the potential link between an ongoing transformation project and robotization preparation. In my work as a European labor and employment lawyer, I have noticed a particularly interesting phenomenon in business transformation projects for global clients. Of course, no one uses the “R” word. But one can begin to decipher a path to the transition to robotization being ever so lightly designed with an ever so slight touch. This is called “specialization” by the business folks. It entails taking a job position and “specializing it” so that the person is doing one thing instead of doing three things. For example, a finance department can be restructured so that a subset of the team is only doing cost accounting. Upon a more studied look, the job is being reconfigured to be broken down into easily explainable tasks which some may think renders the position “mundane, repetitive and predictable,” thus preparing it for the transition to robotization.

So, from the HR Legal professional’s perspective, it is essential to have our eyes wide open and aware of the parts of the business that can be impacted, the positions and tasks, and attentive to the preparatory steps to robotization, even if no one mentions the “R” word.

Proactive awareness to these issues can help HR better prepare for the potential job loss that may occur. While in most transformation projects the most difficult part is the RIF, here, issues around those employees that remain and will work alongside the robots may be the most challenging part of the transition. Avoiding loss of key talent and retraining displaced employees are essential.

3. Humans in the new digitalized working world

The new digitalized working world will be more of a mosaic than ever before. Not only will there be different types of employees working in a global matrix organization, including the new “on-call” employees and zero-contract employees, and, contingent and independent non-employee workers of the “gig” economy, but also nonhumans.

So, managing the diverse actors in the workforce will be quite a challenge for HR. This is critical and challenging given its novelty and our lack of experience and personal comfort levels dealing with robots and the relationships between humans and nonhumans at work.

In contrast to “traditional machines” where the law (the Occupational Safety and Health Administration in the US, for example) looked to separate the employee and the machine for the protection of the employee’s health and safety, such separation will not necessarily exist between robots and humans, who may be colleagues working and collaborating side by side (cobots). In fact, it is often the case that the “agent” (the employee) is the one teaching and training the robot to do his old job.

With such close collaboration, the health and safety of humans at work will be of pronounced concern, requiring attention to not only the preservation of the physical health of the humans, but also their emotional and psychological health. Human dignity issues may arise, as well as emotional distress concerns. Bullying, unintentionally or intentionally, by robots unable to “read” the emotional state of the human coworker, may arise.

This might be an appropriate time to consider what Isaac Asimov wrote in 1943 about interactions between humans and robots. Asimov proposed three basic laws which should govern all robots:

- i. A robot may not injure a human being or, through inaction, allow a human being to come to harm.
- ii. A robot must obey the orders given it by human beings except where such orders would conflict with the First Law.
- iii. A robot must protect its own existence as long as such protection does not conflict with the First or Second Laws.

Should these laws govern the workplace? How can they be enforced in the workplace? What code of conduct should be put in place to manage the diverse actors in the new working world? Will Asimov’s laws be sufficient to regulate robotic conduct in a working environment? What else may be required? What about rules relating to expectation of privacy in the workplace given that a robot can monitor and report on every move of the employee? And, how do we protect robots from humans? Finally, whose job is this anyway? HR or other?

There are many more questions than answers to issues of robotics in the workplace.

4. HR Legal areas of concern

What are the challenges to robotization under existing law? Are existing laws sufficient? What new legislation could potentially help ensure a peaceful and productive working relationship between humans and nonhumans? Can the legislative response adapt fast enough to the changing digitalized working world?

I have listed below the issues to consider under existing laws that are relevant in the transition stage to robotics in the workplace:

- Is collective bargaining with unions required?
- Are works council consultations required?
- Need one inform or obtain authorization from data protection agencies?
- Is health and safety consultation required?
- Is labor inspector authorization required?
- How to manage employees' privacy issues, for example, as robots detect inefficiencies in the workplace?
- Are there obligations to retrain impacted employees?

As for the reduction-in-force for dislocated workforce, existing law requires:

- Notice (Worker Adjustment and Retraining Notification, in the US) and other procedural requirements
- For Europe, substantial consultation obligations
- For Europe, substantial redundancy costs
- For Europe, selection criteria process
- For Europe, social plan measures
- For Europe, finding new jobs for the displaced employees
- Releases and waiver of claims where valid
- Retraining of terminated employees (Older Workers Benefit Protection Act, in US)
- Employee communications
- Litigation defense
- Addressing changes in the conditions of the workplace for employees who remain working with nonhumans
- Special care to human dignity issues
- Emotional and psychological issues
- Data protection and privacy issues

- Concern over the psychological impact of (unreciprocated) empathy from nonhumans

5. Tax-related issues

The increased use of nonhumans may create funding issues with respect to state-run social security and unemployment insurance. For each country, different issues may arise on the basis of government deficits and the drop if any in social contributions as a result of the employees made redundant as a consequence of robotics in the workplace.

The most critical issue however lies in managing the “new unemployed.” If employment loss is significant, how will a blue and white collar population subsist in our society without work? Indeed, the advent of the nonhumans could give rise to a society of leisure, where many persons will have no work nor the ability to find work as their mundane, repetitive, routine and predictable jobs disappear.

The first concern will be finding them work, and training them for new jobs. One issue here is that we are not sure to know today what jobs we will need in the future, so it is difficult to identify the required skill sets for these future jobs. This is the most complex part of the problem: as we are not sure to know which jobs and skills will be required in the future, the real possibility of significant unemployment cannot be excluded.

One approach may be providing a government-subsidized basic income for all those without work. In essence, these persons would live on a state-provided modest income and would have enormous amounts of free leisure time. The “lucky few” with “complex” jobs would continue to work and would live at a substantially higher standard of living.

The concept of basic income is a social security measure being experimented in Europe. It specifically targets persons with little or no income and provides them with income allowing them to meet their basic needs (rent, food, water and electricity).

Basic income has already been implemented in several European countries, in particular France, and most often aims at reducing poverty and guaranteeing that the basic needs of persons in order to maintain their dignity as human beings are satisfied. Other European countries, such as Finland and the Netherlands, have recently launched small-scale experiments with basic income in order to study its feasibility in their country.

This issue is already being considered by the European Union in a draft report recently published on 31 May 2016. In this draft report, the European Parliament calls on the European Commission to define “smart autonomous robots” in order to properly regulate their actions, their rights and obligations. The draft report states that:

“In the light of the possible effects on the labor market of robotics and AI, a general basic income should be seriously considered, and invites all Member States to do so.”

One potential approach to the financing of basic income is through corporate taxation of “smart autonomous robots” themselves. Given the increased productivity and margins of businesses due to the efficiencies gained through the use of robots at work, the extra tax could be justified from an economic perspective. As the robots “caused” the unemployment of the displaced workers, the tax can also be justified from a moral perspective.

This seems to be the approach under consideration by the European Union that states in the above mentioned draft report that “consideration should be given to the possible need to introduce corporate reporting requirements on the extent and proportion of the contribution of robotics and AI to the economic results of a company for the purpose of taxation and social security contributions.”

This approach is consistent with recent proposals from the members of Organization for Economic Co-operation and Development (OECD) on international taxation of multinationals. The OECD, governmental bodies and economists advocate for changes in the current taxation schemes, arguing that the globalization of the economy has allowed companies to construct complex and tax-efficient corporate structures thus avoiding paying a fair tax to each country. The recent shift proposed by the OECD towards BEPS (Base Erosion Profit Sharing) and its proposed actions illustrates this point well.

6. Are companies sufficiently preparing for this revolution?

How can HR Legal professionals prepare for this transition? I suppose the first question that comes to mind is whose job will that be? In Human Resources, there is an “H” for humans. Will HR Legal professionals manage “nonhuman resources” as well? If not, who will?

Should nonhumans “look” like humans? There is quite a bit written on this topic. The argument in favor of human-looking robots is that it might make the workplace more friendly and comfortable for humans, and facilitate collaboration between humans and robots. On the other hand, significant psychological concerns for humans exist if there is no clear identification of humans vs. nonhumans. Unrequited love can be painful!

And then there are issues with robots actually being incorporated as part of the human body. These are called “exoskeletons” and are intended to be used to help humans do their jobs, for example, heavy lifting. Could they also be used as a reasonable accommodation for disabled workers?

The retention of talent will also be a challenge. We do not know how different key employees would react to the introduction of nonhumans into their workspace. Perhaps it would be a welcome change not to be required to tolerate the personalities and behaviors of certain coworkers. It also may be rejected by employees who consider human interaction to be the most rewarding aspect of their work.

These are just some of the many matters to be taken into consideration.

7. What about us? Will robots do our jobs as HR lawyers?

Well, it is not clear. In their book, *The Future of the Professions*, Richard Susskind and Daniel Susskind argue that technology will certainly transform the work of human experts.

On the other hand, French philosopher and psychoanalyst, Cynthia Fleury, argues in her book, *Les irremplaçables*, that humans cannot be replaced.

The issue is more complicated as we consider the different forms of AI: soft and hard. “Soft” AI is a nonhuman doing a human task. “Hard” AI is a nonhuman actually thinking like a human. Considering how these different types of AIs impact our profession is key in order to understand how lawyers can incorporate robots into the practice of law.

“Soft” AIs will only be capable of acting according to predetermined criteria. The tasks accomplished by such AI would focus on tasks that train our young lawyers but which they may find less fulfilling, such as, tracking legislative changes around the world or tracking court decisions to help predict outcome and better defend our clients. In due diligence, Soft AI could help identify and organize documents by issues and categories.

These tasks could also be more complex and follow a predetermined thought process, provided that the key variables have already been established. For instance, the legal review of noncompetent documentation in the context of a buyer’s due diligence could be handled by an AI, under the condition that the AI is provided with the appropriate rules and guideline establishing the validity, or nonvalidity of the agreement. Such an AI could be of tremendous assistance for HR lawyers by reducing time-consuming and repetitive work, such as compliance reviews and contingent workforce risk assessment, and can assist in the harmonization of contractual documentation following a merger and even restructuring cost analysis.

As to “hard” AI, it is difficult to estimate its impact on our profession, given that the most difficult part of thinking like an HR lawyer is taking into consideration unquantifiable elements. Indeed, as an HR lawyer, the purely legal solution is most often not the most appropriate or the most efficient response to a situation, and the best advice must take into consideration a variety of matters, including the client’s industrial action situation, the

employee concerned, unions, works councils, etc. Top quality advice and solutions require that a number of variable, and more importantly, types of variables that are hard to specifically identify by AI (e.g., emotions, politics, sociology, culture, history).

An understanding of what AI can do for lawyers in order to better organize and prepare for future challenges is necessary. One thing is certain: we have no choice but to embrace a new way of practicing law! Our clients will increasingly expect this, and survival of the fittest should be kept in mind. A request for proposal will be asking bidders to explain how AI will be used in the provision of legal services to keep costs down, increase productivity, shorten delivery time, and lower the risk of human error. We must act!

In the areas of HR legal services, we have significant opportunities to increase productivity while reducing risk at a potentially lower cost. Specifically, as to HR law, the human element, the combination of psychology, sociology, culture and law should ensure that human HR lawyers will remain relevant and employed for the foreseeable future.

8. Conclusion

Transformation of the workforce brought by technology and artificial intelligence is inevitable and hard to predict. The actual impact of the digitalized workforce and the rules regulating them, and the scale and significance of the impact cannot be measured today. This revolution will fundamentally question not only human working models but also more broadly, business models.

As HR lawyers, we must keep a keen fresh eye on these issues affecting the new digitalized world of work, and we must also consider how this technology will impact our practice and ask ourselves not if we should embrace it, but how. And if not now, when?

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