The Near Future Impact of Machine Intelligence on Jobs

The list of workplace tasks and activities that machines are prepared to take over continues to grow each year. Ryan Holmes, founder of Hootsuite, a Canadian social media success story, recently posted a LinkedIn Pulse article discussing the need for a living wage for workers displaced by robots in the very near future. The impact of machines, robots and artificial intelligence's (AI) is very tangible as we look to the workforce of the near future.

Over the past 2 years we have watched with curiosity as Google weaves its driver-less car across the US and Amazon plays with drones. If you look at the model of air transportation, airline pilots often steer their planes only 3-7 minutes during the entire journey as auto-pilot does most of the work. Driver-less cars and drones will likely have more impact on the transportation industry then the much recently discussed Uber.

Machines In Tandem With People

The near future machine intelligence is not as much about replacing human workers as it is about changing what they do and how they do it. In the near future machine intelligence will improve productivity and reduce errors as routine, redundant and basic tasks can be accomplished much quicker and with fewer errors through automation.

45% of current workplace activities today could be automated with existing technology

Recently the McKinsey group released an article based on initial finding from a research project exploring the impact of machine intelligence on jobs. In their initial release of findings they concluded that as much as 45% of activities individual workers perform today can be automated already using existing technology.

The report speculated that the benefits from this automation includes increased and higher quality and improved reliability or work at levels much higher than a human can perform. The report has identified 4 key findings that demonstrate that in the near future automation will not necessarily eliminate most jobs but change the activities within them by redefining roles and processes, changing what people do and how they do it.

4 Key Findings of the impact of Machine Intelligence in the Workplace

- **Automation of Activities:**
  After analyzing roughly 2000 work activities, with 18 capabilities that could be automated, the research identified that 45% of these activities could be undertaken by machines with today's technology. Those capabilities ranged from fine motor skills and navigating in the physical world, to sensing human emotion and producing natural language. One example offered by McKinsey was the use of Narrative Science's artificial-intelligence system, Quill, that can analyze raw data and generate natural language, writing reports that readers assume were written by a human author.
- **Redefinition of jobs and business processes:**
  The research suggested that only about 5% of jobs can be entirely automated using current technology but 60% of occupations can have 30% or more of their activities automated. Machine intelligence can gather and process information quickly to allow workers to use the information more efficiently and quickly. In the highest levels of jobs automation can amplify the value of experts by freeing them to focus on high value work.
- **High-Wage Occupations Impact:**
  Traditionally the conversation about job loss as a result of machine intelligence and automation has been focused on lower-skilled jobs such as retail, transportation, customer services and factory labour. However, it is important to note that automation is not only going to impact low skilled workers but roles at all levels of the organization including financial managers, physicians and executives.
- **Creativity and Meaning in Work:**
  Currently abilities such as applying compassion and caring, sensing emotions and demonstrating creativity are beyond the capabilities of most machine intelligence. However, the research identified that in the US, only 4% of the work activities require creativity at a median level of human capabilities and only 29% require a median ability to sense emotions. While some Robots and AI are learning to sense emotions, show caring and creativity it is not near the depth of humans at this time.

The initial research findings demonstrate that all jobs and levels of workers will have to begin redefining their jobs to incorporate machine intelligence. While machine intelligence will take over routine, process aspects of roles this will leave room for more opportunity to develop human contributions to creativity and sensing and considering human emotions as important elements of the workers roles.

Within HR it will become vital to keep an eye on what technologies can manage which aspects of your own and your organizations work functions and identify strategies to take advantage of these technologies by finding ways to better leverage the human elements of your human capital. If you do not stay on top of these changes your organization may find itself at a competitive disadvantage as the future nears.