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Artificial intelligence and the future of work

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Essay
Artificial intelligence and the future of work[1]

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Abstract

The world that we are living in is experiencing a foundational revolution. Artificial intelligence and automation are substituting human tasks and altering the skills and expertise that companies are looking for. Workplaces are changing. Even more, the nature of work is changing. Is technological change a blessing or a curse? What impact will the persistent increase in usage of technology and artificial intelligence have on where we work and how we work? All these are eminent questions that need to be clarified. This paper discusses how this change is happening and explores the reasons behind this change.

A crucial debate is intensifying; whether artificial intelligence and automation will completely replace workers in some industries or are they a mean to enhance workers' productivity? McKinsey has been researching the kind of work that is more adjustable for automation. They concluded that jobs that are more technical and routine, have a greater chance being replaced by technology (Manyika, 2017). The reason behind this is that machines are not designed to work creatively and think strategically. Not until this moment, at least.

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Research suggests that 95% of accountants will be replaced by automation in the next 10 years (Pistrui, 2018). The accountants who are aware of what might happen to them in the future, talk about "unlocking accountants to become truly strategic partners to the business" (Kepes, 2017). However, "unlocking accountants" is a very broad claim. It could mean that their roles in their organizations will be altered and this might not be accepted by many. On the other hand, it could mean promoting those who have been replaced by machinery to higher positions. Hence, satisfying many accountants. Furthermore, around 40% of occupations in the legal sector might be replaced by automation in the next decade (Pistrui, 2018). Many clients in the legal sector might prefer human interaction if they are facing critical issues. Accordingly, automation could be a significant risk for the legal sector's client base.

Melonee Wise, CEO and founder of Fetch Robotics, warns against that approach to automation by arguing that: "For every robot we put in the world, you have to have someone maintaining it or servicing it or taking care of it" (Pistrui, 2018). She contends that the sole objective of automation, is to improve workers' productivity, not replace the workforce. In other words, for workers and robots to work together to achieve higher productivity levels than before. The National Institute of Standards states that automation could boost production capacity by up to 20%. According to Manyika, the director of Mckinsey Global Institute, a productivity increase in every organization should eventually lead to economic growth (Manyika, 2017).

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Machines might act as associates and collaborators in creative problem solving (Davenport & Kirby, 2015). But on the other hand, the ultimate goal of businesses is to increase revenues and cut costs. Therefore, it could be appealing for managers to possess the least number of workers possible, maintaining a large number of robots with high productivity levels to reduce salaries. In the long run, this could considerably increase unemployment rates, outweighing the benefits of automation to the economy.

As discussed, machines are potentially better at the technical job than a human-being can ever be. Accordingly, organizations are changing their employment strategies to employ those with the necessary skills to use the machines. The adjustment to work with new production systems, should heavily increase demand for highly skilled workers, while low-skilled jobs will steadily disappear due to automation (Autor, Levy, & Murnane, 2001) One advantage for this is that it could support established industrialized countries to recover manufacturing employment since they have a highly skilled workforce that possesses experience in working with highly automated processes (Krzywdzinski, 2017). The leading approach in economics that supports this, is the model of skill-biased technological change, which argues that technological progress increases demand for high skills and reduces demand for low and medium-level skills (Autor, Levy, & Murnane, 2001). The resulting scenario could be a division of the employment structure with a decreasing share of medium-skilled jobs.

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Another alarming issue aside from the division of the employment structure is robots developing a bias. With the development of machine learning in the workforce, the robots might acquire gender, socio-economic and racial bias that could negatively affect the workers' performance and the overall environment of the workplace. Artificial intelligence machines function by learning. They possess software applications to become more accurate in predicting outcomes without being explicitly programmed. An artificial intelligence chat bot in the form of a teenage girl was initiated by Microsoft. Within just 24 hours, the project was discarded, and Microsoft deleted the bot's twitter account. Initially, the AI bot was stating blissful announcements and ended up declaring its acceptance of certain socio-economic ideologies (Bateman, 2017). This emphasized a key challenge that the artificial intelligence industry faces. There is a high probability that machines could learn and adopt unfavorable ideologies from humans. Consequently, this problem could occur in the work environment and harmfully affect the well-being of employees and reduce their productivity. Likewise, Goldstaub, co-founder of AI directory and community CognitionX states that if robots are designed in a specific way, then automated human resource procedures will also be affected. For example, automated human resource procedures might favor males over females in job recruitments. This could lead to discrimination in the work place and might give a negative impression about the organization.

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Recent years have seen the rapid globalization of innovative communication technologies. For instance, there has been an increase in the number of independent workers, who are unattached to the bonds of a large corporation. Furthermore, the continuous increase of cheap means of production is one of the central reasons that makes free agency possible. Whereas, in the past, production posed huge obstacles for the typical corporate employee in the form of costly expenses and complex technical demands, the concept of free agency has made production more accessible through the spread of cheap computers and abundant connections to the internet. This has been referred to as "digital Marxism" (Ogasawara, 2007). The tasks undertaken by these free agents are carried out independent of management bodies. They form temporary connections to produce and distribute goods as well as to facilitate the sale of services. Following completion of the job, the formed network is then dissolved, and the respective members become free agents again (Malone, 2004). The rise of new means of communication via technology have made it considerably easier to locate and take up work alongside other agents. Ogasawara refers to this trend, saying; "Globalization of economic activities and novel communication technologies have qualified many workers to become liberated of an organization. They are free to balance between work, personal life, and education as they feel fit" (Ogasawara, 2007).

Undoubtedly, the work-life balance of those working in organizations is changing as well. Digital technologies have created the opportunity to work distantly from the

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work place. They offer more flexibility in when people work. Employers will probably grasp the power of technology to allow employees to work virtually to help balance their own work life balance (Vermeulen, 2017). Also, with greater understanding nowadays around health and stress, this trend will only increase. Experts from Forbes Coaches Council assert that the term "work life balance" has negative insinuations and that the term itself is changing to "work-life integration" or "work-life flexibility," to have more positive effects (Council, 2016). Netflix portrayed this in their presentation on corporate culture. Their model is to expand employee independence as they grow, to continue to attract and strengthen people, so they have a better chance of persistent success (Vermeulen, 2017). Not only those who work alone and independent of organizations are achieving an improved work-life balance level, but also those who are working in organizations. This demonstrates that digital technology has given employees the chance to work remotely.

There has been a prompt increase in research on issues associated with how human resource management practices and their application might differ across different countries (Markoulli, Lee, Byington, and Felps, 2017). This implies that, with globalization expanding, there is a growing interest in developing international human resource management strategies. Furthermore, globalization is an existent challenge for Human Resources (Boxall, 2018). The true definition of a "universal" company is one which seamlessly manages its overseas offices from any of its global locations.

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Many large corporations misunderstand this and place too much emphasis on creating a single centralized headquarter. The HR department should be able to source new leaders who can effectively manage multi-cultural and multi-disciplinary teams across the globe. This management should be as cost-effective as possible. Nowadays, human resource departments use the powerful and full scope human resource information system solution that fits all of the necessities. Though, in the future, the department's requirements will begin to change swiftly, thus a new era of swift and simple human resource information system (HRIS) solutions is expected (ibid.). The current complicated HRIS solutions will most likely struggle to adapt to the increasingly demanding market needs. In contrast, the future HRIS will be substantially simplified making it more user-friendly. It is likely to focus on administering only those documents that are integral to the business.

As human resource information systems are changing, digital hiring strategies are being altered and developed for new software specialized for recruitment. Automation tools massively accelerate processes, and tools such as email verification help evade sending to departed email addresses (Post, 2018). Also, the use of chatbot technology to accelerate the communication with candidates at scale is being implemented in many companies, according to Collins, the CEO of RoboRecruiter. The next progression in digital hiring will be biometric data, and along with it will be cloud-based hiring which will act as storehouse for all applying candidates' information. The data analytics aid in finding

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the most searched jobs along with people who are interested or well-fitted for the job. "The fact that so many candidates have been hired through this trend is what makes companies as well as the candidates utilize it more," argues Jennifer Post (2018). What was only done manually during the preliminary hiring process, could now be completed entirely digitally (ibid). Repeatedly, the early process of hiring contains managerial, repetitive, and unproductive duties. An example of this is an initial candidate phone screen starting from scheduling a call with the candidate until entering his data in a tracking system. Repeating these tasks multiple times in a short period is inefficient. The complete process could be done digitally, significantly reducing time spent manually examining employee candidates, and freeing up the employer's time to have important conversations with those highest qualified for the position. Even though these tools will be essential to recruitment as they connect the most qualified candidates resourcefully and successfully to the company, there will remain a continued need for skilled recruiters to facilitate the human aspect of the process such as face to face interviews that technology cannot replicate.

The implementation of artificial intelligence and technological advances in the work environment is neither a blessing nor a curse. Technological advances promote efficiency and cost-savings on the long-run. On the other hand, without utilizing the technological advances, organizations will be living in the past and not developing to cope with the advanced economies. But on

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the other hand, there is human value that cannot be replaced by automation. Businesses prefer building a good and healthy relationship with clients. Machines are not programmed to that, they are built to follow a certain formula. There is a value in human interaction that can never be replaced nor replicated by machines, which could negatively affect businesses' customer base. The healthy balance of both should be the perfect solution. Whether this change will have a positive or negative impact on the next-generation workforce and the economy as a whole will depend on the way in which these tools are being utilized, and the outcome is yet to be seen.

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