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The Future of Work – How RPA is Transforming Job Roles and Skill Requirements

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Abstract: *The future of work is rapidly evolving and transforming from what it used to be 5 years back. Thanks to the emergence of such technologies as robotics and artificial intelligence (AI), this transformation is going to be as crucial as mechanization of farms and the industrial revolutions[1]. While there is significant apprehension that implementation of these technologies will displace significant number of labors and several jobs will be lost. However, it is also true that several other jobs will also be created to accommodate this implementation. The COVID-19 crisis has been responsible for hastening the existing trends and instigated business to reevaluate several aspects of work. This article examines the impact of Robotic Process Automation (RPA) on job roles, skill requirements, and overall future of work across different sectors.*

Keywords: Robotic Process Automation

I. INTRODUCTION

The future of work is rapidly evolving and transforming from what it used to be 5 years back. Thanks to the emergence of such technologies as robotics and artificial intelligence (AI), this transformation is going to be as crucial as mechanization of farms and the industrial revolutions[1]. While there is significant apprehension that implementation of these technologies will displace significant number of labors and several jobs will be lost. However, it is also true that several other jobs will also be created to accommodate this implementation. The COVID-19 crisis has been responsible for hastening the existing trends and instigated business to reevaluate several aspects of work. This article examines the impact of Robotic Process Automation (RPA) on job roles, skill requirements, and overall future of work across different sectors.

Across different industries RPA is streamlining workflows besides boosting efficiency.RPA involves using technology to allows employees to configure computer software or 'bots' to capture and interpret existing applications for manipulating data, processing transactions, and interacting with other digital systems[2]. RPA bots can work incessantly which enhances processing speed and output substantially. Task automation reduces costsmanual labor besides eliminating errors, thus causing overall cost savings. The financial sector was first to embraced RPA. Today, a wide array of industries like fashion, retail, logistics, telecom, construction, energy, utilities, pharmaceuticals, automotive, and even food industry adopting RPA for transformation[3]. Today, RPA is thegoliath technology, with its global market reaching $5.7 bn and anticipated to cross $13 bn by 2030[4].Independent studies published by CBRE and Genesis, show that 2030's workplace would be very different from today's with wider scale of digitization and implementation of AI-powered RPA[5].

RPA has changed the face of work today. Photography industry went through complete upheaval with the advent of digital cameras and mobile phones which revolutionized how we click photos. The only option photographers had, to remain in business, was to embrace the new technology. Nobody believed that such an interesting job could cease to feature among top future jobs and would soon become redundant[6, 5]. That is how industries are impacted by technologies. Yet there is application across industries.

IT industry can automate software installation and initial configuration using RPA, saving time and money and is best suited for automated testing. Monitoring and scheduling regular data backups using RPA ensures easy data recovery when needed and enhance data security.RPA bots can continuously monitor for the release of new patches and updates from software vendors and then prioritize and test them. Routine password resets can also be entrusted to RPA [4].

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RPA is emerging as a powerful tool to help Telecom companies achieve operational efficiency through the utilization of software robots to automate mundane jobs, freeing up employee-time for more customer-centric strategic activities- a win-win situation for both business and customers[3]. Simple repetitive tasks such as, customers' account verification, reports on the market landscape, competitor analysis, reports on users, network performance and issues, and many others, request forwarding, real-time network performance monitoring, competitor, customer self-service etc., can all be carried out with the help of PRA[4].

Healthcare industry presents significant scope for RPA automation. The sector relies on documentation and tedious back-office tasks. For instance, recent study shows 43% of in US hospitals, CFOs and revenue cycle leaders employ RPA for revenue cycle automation[7]. The technology can significantly influence healthcare providers' cost reduction in enrollment, billing, customer service, and claims[4].

In automotive industries RPA can be implemented in inventory management, assembly lines, etc. thus reducing production time and increasing efficiency[8]. Logistics management can also be easily automated.

Recent AI developments have widened the array of skill sets and abilities that can be replicated using RPA. Previously, computers and robots could only follow programmer-specified rules. However, machine learning algorithms (advanced AI) can now take decisions irrespective of pre-specified rules. Additionally, AI technologies can work with unstructured dataand environments. Consequently, AI can assist in automating non-routine activities, in contrast to computers only replacing workers in routine tasks requiring and needing codified environments. Usually across countries, occupations facing highest risk of automation comprise small fraction of jobs. Young and low-skilled male workers face highest risk of being replaced[9].

Through automation RPA increases efficiency and reduces costs, allowing human workers to concentrate on superior value-added jobs. Regardless of concerns of job displacement, RPA continues to create new job roles, transforming existing ones, providing career prospects for IT professionals [10]. Process automation can benefit the workplace but it must be understood that its use doesn't necessarily lead mechanically to systematic improvement of labors' skillset. Here, it is necessary to understand the importance of adequate employee training for facing the new reality. Employee training and adaptation is crucial for organizational sustainability. Training must be aimed at imparting technical skills to employee that will help them effectively exercise and implement technology and integrate it into their working environment as an enabler, not a threat. RPA implementation necessitates investment in training employees about the new technologies along with effective and unambiguous communication regarding its implementation, for change management which will help to avoid issues with resistant employees [11].

The world of work is transpirings wiftly due to new technologies, such as AI and RPA, the emergence of novel work forms, along with globalization, green transition, and demographic modification. Countries must implement appropriate policies urgently to allow individuals and firms to realize maximum benefit from the implementation of these technological changes, while simultaneously handling the risks. Change by its very nature is difficult. Employeesmust acclimatize and move along with the changes caused by new technology implementation and welcome it with a positive stance. As a matter of fact, new automation will always emerge. Adopting the changes openly ensures that they maintain both organizational and their own personal and professional reputation. Irrespective of the sector, every business will apply RPA, sooner or later and with the adoption the nature of work will inevitably change. It is a continuous process.

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