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The Silent Takeover of Automation You Can't See

Most individuals believe that automation implies the use of robots in a factory. However, the truth is that without the knowledge of many people, software automation is actively working on banking, HR and government operations.

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Introduction

As individuals perceive the term automation, they tend to think of having the presence of robots at factory or machines performing physical labor. There is nothing wrong with this notion, however, it opens a portion of the picture. Automation is not just in stores nowadays. It is silent working within computers and systems which we use day by day. Software is doing most of the processes that they previously performed by us without us noticing. To illustrate, when you send money on a banking application, you do not realize the complicated system at the back-end. In situations where a company is working on a salary, or when handling employee records, most of the tasks are usually automated in a software program. Without saying, automation is gaining relevance in places such as Pakistan. As organizations are becoming increasingly digital, there is an increase in the number of organizations that are automating to save time and enhance efficiency. This change is not perceived by most people, yet it is gradually changing the way business is conducted in most industries.

Technology Overview

Software automation refers to the automatic execution of tasks in programs and systems without the need to have human labor. These activities may be either basic or complicated depending on the system. A typical example is with the banking systems. Whenever money is transferred by one user to another through an account bank account, the system will ensure that balance is checked, that the user verifies and the payment is completed within seconds. All this is automatically performed without the presence of a human being to process it.

A different case is in human resource management. Software is also used to manage the salary, attendance and employee records of companies. Salaries, taxes and deductions are automatic calculations of payroll systems. This saves manual labor, as well as minimizing errors. Automation is also being utilized in the government systems. Document, application, registration online portals are very popular now. These systems can process lots of data, and they can process requests without involving humans.

Another part of automation is the usage of tools such as chatbots that respond to questions of customers. Such systems can support numerous users simultaneously, as well as giving fast responses. Simply, automation serves as a kind of engine. It secures the smooth running of systems in the background allowing the result to be seen only by the users. Pakistan is one country where slow uptake of these systems is taking place by many banks, companies, and government departments. This is assisting them in working at a faster rate and accommodating more users.



Key Findings & Impact

Efficiency is one of the greatest advantages to software automation. Works that required hours to be done before could be done within seconds. This will save time and enable companies to concentrate on other more valuable work.

Accuracy is also another advantage. Systems that are automated minimize errors by humans. As an illustration, in payroll schemes, all the checks are automatic hence enhance errors in payments and taxes are minimized.

Large volumes of data are also easily processed with the help of automation. Thousands of requests can be processed by the systems without any slowing down. This is quite helpful to banks and government services.

Nevertheless, there are certain concerns as well. Job impact is one of the problems. In the manner that work is automated, less human resources would be required to carry out routine duties. This may pose a challenge to employees who are reliant on such jobs.

One other issue is system dependency. Failure of an automated system may terminate critical services. To explain this, in the event of a banking system failure, the user might not have his money.

Security is also an important issue. Sensitive information such as finances and personal information is dealt with by automated systems. Hackers can attack these systems in case these systems are not secure.

Automation can be very beneficial in Pakistan particularly in the enhancement of the public services and the business activities. Yet it needs adequate planning, training as well as security arrangements.

What's Next?

Software automation will increase use in the future. Further institutions will shift to digital systems to enhance pace and efficiency. The automation will become smarter with the help of the new technologies, such as artificial intelligence. The systems can potentially make decisions, learn based on data and get better. The number of services that would be completely automated might increase in the future. Software systems will handle a lot of processes in the banking sector, the medical industry, and the educational sector.

Nevertheless, human intervention will still be required. It will force people to operate systems, resolve multifaceted issues, and decide on critical matters. The students and professionals of the profession should know about automation and know how to operate such systems. Such competencies as problem solving, problem design and data understanding will gain significance. Work is not replaced by automation. It is transforming the manner of working. Individuals who embrace this change will be able to get more opportunities in future.

About the Author

I am Hunain Tariq, a student at University of Agriculture Faisalabad. I love tech and software development in any form. I really enjoy distilling complex technical topics to make them easy for beginners and students to understand.