

Harnessing Intelligent Automation and Machine Learning for Improved Service

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Telecom and communications service providers have long struggled with how to do more with less. With tight budgets and scarcity of qualified technology professionals on the rise, telecom service providers need an alternative that will enable them to work smarter, not harder. Advanced IT automation and machine learning solutions have the potential to do just that. But not all intelligent solutions are alike.



The differences between automation, machine learning, and Artificial Intelligence (AI) are important to understand when evaluating these technologies. From there, telecom service providers can quickly identify the key features to look for (e.g. integration, ease of use, minimal training, decision support, etc.) when seeking a solution that will help to drive ROI, efficiencies, and enable better service delivery to customers. Understanding the benefits and shortcomings of automation technology is critical to navigating the best path to the undeniable automated world.

Defining Automation Technology

Many people – highly-respected professionals included – erroneously use the terms automation, artificial intelligence, and machine learning interchangeably. In fact, while the three are related and work well together, they are markedly different in a number of ways.

Automation leverages technology to perform predefined tasks, workflows, and business processes. IT Process Automation provides the ability to orchestrate and integrate technology tools, systems, people and processes. Its benefits include faster response to incidents, reduced human error, and significant efficiencies.

Artificial intelligence broadens this concept by carrying out tasks in a way that could be defined as “smart”.

Taking things a step further, machine learning is a particular application of AI that is based upon the concept that we can now provide data to machines and those machines can then “learn” and determine the next steps by themselves, without the need for human guidance or intervention.

In other words, the three technologies are essentially built upon one another, each expanding on and enhancing the prior concept to achieve bigger, better, and more beneficial results, particularly from a business standpoint.

Embracing Intelligent Automation

In line with its position at the head of the technological advancement pack, the telecom industry has long been an early adopter of new concepts, and this time is no exception. In fact, those in communications are broadly embracing intelligent automation to improve business operations in almost every area, but particularly that of service. Process automation has been utilized for decades as a tool for improving internal efficiency, eliminating human error, reducing costs, and much more.

Beyond this basic structure-driven and logic-based technology, many in the telecom industry have begun expanding to adopt automation that is more cognitive in nature – the so-called “next

generation” of automation, if you will. This type of artificial intelligence allows for the capture and conversion of unstructured content from external sources. Unlike process automation, which relies primarily on electronic, system-generated data, the data being used with AI is largely human-generated.

Rather than simply following a predefined workflow, AI and machine learning technology is designed to actually learn patterns based on both the natural consequence of process flow, as well as through watching and mimicking how humans make decisions. With every automatic transaction, the technology becomes more and more capable of working autonomously, all the while improving its performance and output. And while this may seem like we’re headed down a path where people will become redundant, the reality is humans remain essential to the successful implementation of intelligent automation. In fact, it is the very actions of humans that enable the technology to achieve its fullest potential.

Bringing Service to the Next Level

The fact that AI and machine learning technologies are capable of performing advanced tasks that require a certain degree of learned intelligence makes them ideal for industries which are largely service-based, such as telecom. In such a highly-competitive field, only those operations that are able to run lean without sacrificing service levels will ultimately make the cut. This is where technology is becoming the differentiator.

With AI at the helm, staff numbers can be kept at the bare minimum. Meanwhile, smart automation – with its learning capabilities – is bridging this gap by continuously optimizing its performance with each and every transaction. As a result, human workers no longer find themselves buried under mountains of emails, tickets, claims and complaints. The machine performs these essential business functions with a high degree of intelligence while agents are able to apply their human strengths toward building and fostering customer relationships.

Taking things a step further, this technology can process what customers are saying in real-time and respond appropriately across multiple channels, without the need for human intervention. AI is capable of capturing and interpreting unstructured data to deliver relevant insights and support better human decision making. When people are no longer bogged down by the mountains of data they’re fielding on a daily basis, they are able to improve in almost every area, particularly in terms of productivity and service levels. This makes the organization as a whole much more profitable.

The Ideal Combination

Of course, none of the benefits discussed above are possible without the right system in place. Silos and disjointed systems still plague many organizations, and those in the telecom industry are no exception. In order to truly harness the power of intelligent automation, a more cohesive, connected infrastructure must be established. IT decision makers should know what they’re looking for in terms of a comprehensive solution. For best results, a system that incorporates all three technologies and uses them to support and complement each other is recommended.



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Additional features to look for include seamless integration capabilities with existing systems, programs, and applications. Without this connection, the various technologies put in place could actually be working against one another and subsequently resulting in the opposite effect. It's also important that the chosen solution be designed for an optimal user experience. While it's true that intelligent technology is highly complex in nature, that doesn't mean applying it has to be. Implementing and managing a smart automation solution with minimal employee training should be the ultimate goal.

In conclusion, intelligent automation is ushering in a new level of standard when it comes to quality, speed, efficiency, and functionality. And in an age in which service is becoming the key differentiator, adopting and implementing a multi-faceted system that incorporates all of the benefits of automation, AI and machine learning may very well be the secret to achieving the competitive advantage all businesses strive for.