

AI Why? Turn Insights into Action by Being Data-Driven First

By: Robert Hingston

The goals of increasing sales and service delivery efficiency and effectiveness have never been more important for digital service providers, media, and high-tech companies. The ever-shifting market demands of the digital economy require extreme business agility to attract customers, keep them happy, and run profitable businesses.



To achieve these goals, many vendors and service providers are looking at artificial intelligence (AI) to save the day. While AI may indeed be the savior, there's a real danger in putting too much faith in AI, given that the technology is still relatively immature and may be entirely impractical or inappropriate for the problem it is trying to solve.

You might say, with minds and money pouring in at an incredible rate, that AI has arrived as *mainstream*. Prior to the current hotbed of activity, the hot topic was big data. Several times over, service providers would ask whether we at Sigma Systems had big data solutions. Now—you guessed it—they ask if we have an AI solution. Rather than focusing on AI or big data in an either/or, however, the real question should center on what problem you are trying to solve and how AI as a technology base will help solve it. Relevance and use case are the important things, and—more importantly, in my experience—organizations need to ensure as a starting point that they are data-driven.

With each new emergent technology cycle, there are always revolutionary solutions being promoted and sold (whether they fit or not) to service providers. Similarly, service providers ask for solutions (and sometimes not the right ones), getting caught up in the hype-cycle and the promise of new technologies, approaches, and the problems they will solve. This is not a new development—in fact it's an old story.

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Frankly speaking, service providers (among many others) are asking for AI solutions because everyone believes AI is the future. However, they're asking big, generic questions and too often they're getting responses that over-promise potential results. There is much naivety and limited understanding surrounding these technologies, what their value is and how best to utilize them.

To mitigate the misconceptions and naivety that surround AI, it is important to define exactly what AI is. By definition, AI is the theory and development of computer systems that can perform tasks that normally require human intelligence. These include, but are not limited to, tasks such as visual perception, speech recognition, decision-making and translation between languages.

AI is often mentioned in the same breath as machine learning, but the two are distinct technologies. Machine learning is accurately defined as a method of data analysis that automates analytical model-building. It is a branch of AI based on the idea that systems can learn from data, identify patterns and make decisions with minimal human intervention.

This distinction is an important one, and several vendors have attached themselves to the market appeal of AI through branding, not product functionality, in the hopes of taking advantage of current and future market demand. Moreover, while service providers and vendors ramp up discussions around AI, just years after big data was on everyone's mind, service providers are still challenged by the notion of what data they care about, and how data becomes meaningful when it's brought together.

While I fundamentally believe that AI will genuinely help service providers—both within the network and day-to-day operations—for many service providers, there's simply no point deploying AI if you don't know what it can achieve or why you need it.

The truth is, before service providers can considering actually deploying AI, they need to ensure they are data-driven organizations. And just because you have deployed a big data solution does not mean you are data-driven. Why do I believe this? Because when I talk to some service providers, they are still searching for answers that their big data solutions were supposed to have provided years ago.

These questions can include “What are my most profitable products?” and “How many quotes have expired and for which products?” They should be answerable because the data exists. However, these questions all too often go unanswered because service providers are not data-driven, meaning they can't put their fingers on the data to answer them.

Even if the service provider can harvest all its data in their business and operational support systems, that is only the first step in being data-driven. Many providers are left with data overload and have no context or understanding of how they can apply the data.

So, what does being data-driven look like? The characteristics of a data-driven service provider include:

- An ability to collect data from all known and involved systems and structure it in an actionable way
- Ensuring that all teams within the organization are sharing the same view of data across all domains of the business
- Having enough internal knowledge to understand what that data means from each potential vendor and domain
- In possession of the capability to aggregate business data into commonly visible objects and build relationships between the objects that help to associate common points of interest

If you can meet the criteria, then you may be ready to leverage AI in your business. It's likely you already know what your most profitable products are and how many expired quotes you have. However, if you are a data-driven organization with a strong data foundation, AI can then be used to go beyond finding answers to simple questions that start with “how many” to, instead, find answers to more complex and predictive questions such as “What would a new profitable product look like?” and “What price would a specific customer be willing to pay for a particular service?” The ability to identify patterns and make decisions is where the value in AI lies and, if used correctly, digital service providers, media, and high-tech companies will be more profitable in the future—and their customers will be better served—through the use of AI.

If your organization is unable to meet the discussed criteria, you may not yet be data-driven, and you may not be ready for AI. This is a situation in which many service providers currently find themselves.

However, service providers can achieve this data-driven ideal and help build the data foundation needed to deploy practical elements of AI. Giving service providers a B/OSS data foundation, and providing configurable data collection, aggregation, and analytics capability will help them assess and act to improve business performance.

Building dashboards enables service providers to obtain visibility into critical parts of their operations that had virtually been invisible to them before. One North American service provider, for example, is focusing on getting as much detail about order flows for the enterprise business. From that detail, it is going to create analytical dashboards for order flows at the agent level and for groups of agents. A real-time view of the states of all orders, the reasons behind those order states, and an assessment of jeopardy status will be included in the first phase of deployment.

For service providers who have never had this type of insight, the information at their fingertips is revelatory. It will still take time for them to learn how to ingrain and operationalize the use of this data into their business decision-making culture, but it is an important first step to become data-driven and to eventually deploying AI.

The recent enthusiasm shown by service providers for AI is understandable. Service providers are large and complex businesses that are going through transformations in technology and business that present massive threats but also giant opportunities. The stakes are therefore high, and it's tempting to grasp at AI as the solution to the problems facing the telecom industry. However, in this rush to transform and deploy AI, care must also be taken to ensure that appropriate, relevant and effective solutions are selected. That process starts by ensuring your company is data-driven one.