All You Need to Know about Artificial Intelligence as a Service (AIaaS)

In the past decade or so, **Artificial Intelligence (AI)** has improved exponentially, and it solved many issues along its way. This has encouraged multiple organizations, financiers, and governments to invest billions of dollars in Artificial Intelligence.

AI is undoubtedly the most emerging, disruptive technology that offers promising opportunities to people relying on technology, and it has become more advanced the innovations in various fields. It's certainly become an integral part in our lives and continues to permeate.

According to a Gartner survey, 70 percent of respondents wanted AI to perform all the tasks like research work, calculations, simplifying procedures, mistakes change, and solving problems. Additionally, more than 57 percent of people desire AI to perform one or two tasks, while 18 percent of survey respondents want the AI to perform more than 5 tasks.

A separate analysis by Research and Markets estimated that the global market for Artificial Intelligence as a service is expected to grow around USD 11.6 billion by 2024.

Before digging deep into the article, let's understand Artificial Intelligence as a service (AIaaS), AIaaS types, and Artificial Intelligence merits and demerits.

Artificial Intelligence Introduction

The term AI is not a new technology for researchers as it was first created as the "first artificial intelligence program" known as "Logic Theorist". John McCarthy planted the seeds of Artificial Intelligence in 1955. In 2011, IBM's Watson conducted a quiz show that showcased AI solving riddles and complex problems effectively and quickly.

In 2012, Google introduced an Android app feature called "Google now" which provides information to the user as a predication. The concepts of **Machine Learning**, data science, deep learning, the **Internet of Things**, and big data are trending technologies in the IT field right now.

What is AIaaS?

Artificial Intelligence enables a computer brain to think or perform tasks as human brain performs. It performs tasks like translating languages, robotic control, playing chess, pattern recognition and so much more with the affordability and flexibility of a third-party service solution. Computers can perform specific tasks that only intelligent humans one could perform. The term Artificial Intelligence changes its meaning constantly as it recedes.

Artificial Intelligence as a service, also known as AIaaS, is the concept of everything as a tool that offers advanced AI functionalities to an organization with minimal cost. In the last few years, IT industry leading companies such as IBM (Developer Cloud), Microsoft (Azure), Amazon (Web Service), and Google (Cloud Platform) have started to offer Artificial Intelligence as a Service.

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In most cases, companies don't need to hire a large team of experts to integrate AI, and they don't require developing AI software in-house. In addition, with an AIaaS model, you can pay for the services you require and upgrade to higher plans when your data and business scale.
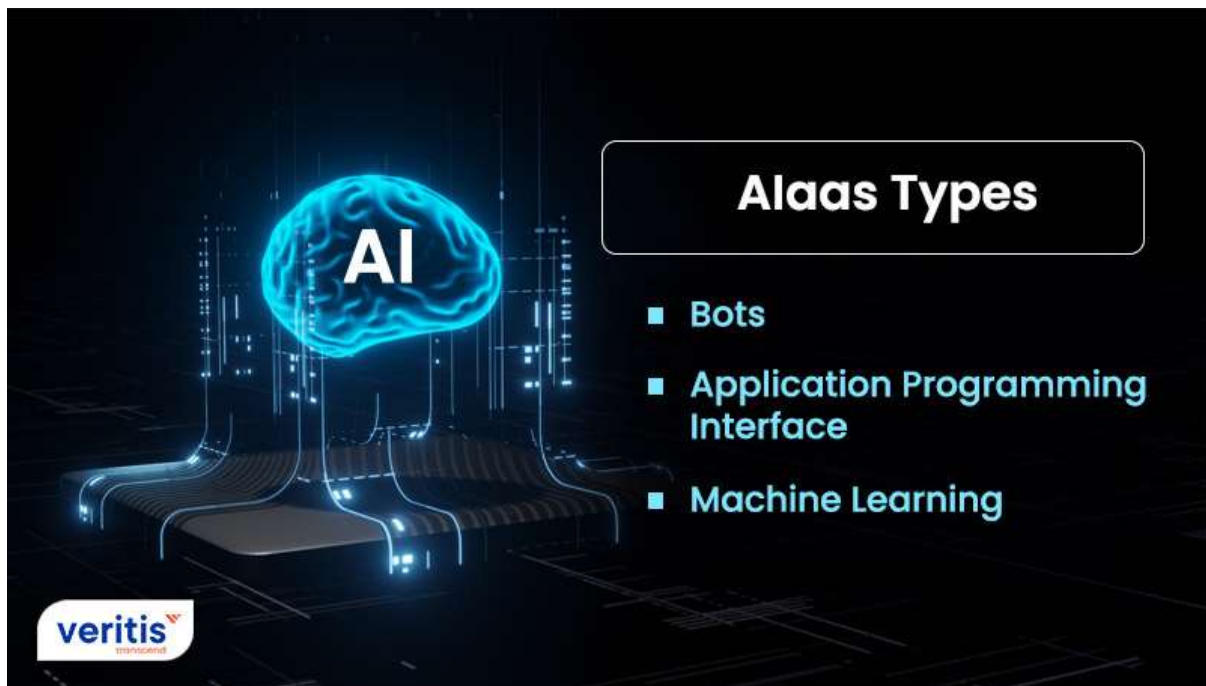
AI encloses disparate technologies including Natural Language Processing (NPL), computer vision, machine learning, and robotics. Although you may be aware of the concepts such as infrastructure as a service (IaaS), platform as a service (PaaS), function as a service (FaaS), and software as a service (SaaS), Alaas also offers 'as a service' solutions hosted by a third-party vendor.

AIaaS Types

There are multiple types of AI services currently available in the market, and enterprises have to pick the correct type of AIaaS tool. By doing so, you are aware of the multiple types of services in Artificial Technology. Broadly, there are three best types of AIaas solutions, and they are

- Bots
- APIs (Application Programming Interface)
- Machine Learning

Bots

In the current era, regardless of whether you search the web for anything from educational websites to shopping stores, you come across bots known as chatbots. Chatbots are text-or voice-based interfaces that simulate a natural human conversation.

Chatbots are typically interpreted and process the user's text and provides an instant pre-set answer. They combine both machine learning capabilities and natural language processing (NPL) algorithms to understand human being's conversation and provides relevant information.

Text-based chatbots are deployed online on social media platforms and websites, while voice-based chatbots are used for sorting customer service and call deflection. They are being increasingly used nowadays and one can witness them in action when you contact a company's customer care. The chatbot gleans off the required preliminary information and makes it easier for the customer and help desk personnel to understand an issue better.

APIs

An Application Programming Interface (API) is a software intermediary that allows two applications to communicate with each other. APIs permit developers to add a new service to their application without writing the code. We can use APIs for multiple tasks like extracting entries from text, Natural Language Processing, emotion detection, computer vision, Conversational AI, and other tasks.

Machine Learning

ML is a member of the Artificial Intelligence family, and it is evolving fast. Using various programming techniques, enterprises use it to analyze and find patterns in a bulk amount of data, streamline processes, and make predictions. AIaaS makes it simple to adopt machine learning technology for business.

Merits of using AIaaS platform

- **Flexibility** – It's flexible. AIaaS offers customization options, and users can implement AI services to their business needs.
- **Easy of set up** – It's simple to set up, and no complicated installation is required. Users are allowed to access the required AI features directly.
- **Fee transparency** – It's transparent. You are only liable to pay for the AI tools that you use.
- **Scalability** – It's scalable. Companies can check whether AIaaS complete the task successfully with profits by starting small projects. If the companies are satisfied, they can scale up or down as per their requirement.
- **Cost** – Alaas is a cost-effective solution. Cost-saving is the main point for the emergence of AIaaS in the IT industry. Organizations don't have to invest a huge upfront cost, and they need to pay only for the usage.

Demerits of using AIaaS platform

- **Security concerns** – Artificial Intelligence depends on data, which means your organization needs to share information with a third-party vendor. Privacy enhancing technologies like data masking, should protect the organization's data.

- **Price** – Long-term cost is one of the disadvantages of the AIaaS tool. The ongoing prices can quickly pile up as companies add multiple AI features to their business. If you want to continue accessing the resources from the AIaaS service, you have to pay a heavy initial price. Opting for rental agreements will find better profitability.

- **Transparency** – In the AIaaS solution, users are entitled to use the services offered by the provider and don't have any access to its inner working. It is complex to understand the underlying process of AIaaS algorithms, which leads to confusion regarding the input and output of the system.

- **Reliance –** Since you rely on multiple third-party vendors, you have to provide data AI software that the industry needs according to their requirements. This can lead to pose a threat to data privacy and data security.

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Conclusion for Artificial Intelligence as a service

AI is one of the rapidly growing technologies and will discover multiple niches in the coming years. Artificial Intelligence as a tool allows organizations to exploit ML, AI, and other solutions without investing heavily into maintenance overheads, skilled personnel, or infrastructure.

Although AI is being rapidly used in major IT firms, its execution is still expensive and challenging. As an alternative, industries can avail of Artificial Intelligence as a service to fulfil their requirements. **AIaaS** is the best solution for different purposes with minimum risk and low initial investment. According to industry experts, Artificial Intelligence as a service is expected to grow by a tremendous annual rate of 34.9 percent, with the market expected to reach over USD100 billion by 2025.

AIaaS is always ready to encourage new services, and innovations. With this catchword article, the Veritis team is looking forward to further discussions with clients to engage with the AIaaS tool in their organization.

Veritis team can help you drive smart evolution for your business, and technology with **Artificial Intelligence as a service** tool. Our team experts will guide you through

implementing the right AIaaS tool in your company to increase your business growth at an affordable cost.