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How AI-as-a-Service can Deepen AI Adoption in **Businesses**

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Isn't Artificial Intelligence (AI) affecting almost everyone, everywhere? Whether you are the Chairman or the Watchman, Al affects you in ways you haven't known. Al is big business. Any business, big or small, needs to embrace AI to optimize operations, elevate customer experience (CX), and shore up the bottom line. A McKinsey report says that Al could automate about 30 percent of tasks in 60 percent of occupations. Al would not only automate but also complement us at our workplaces. This explains why organizations are investing pots of dollars in Al. According to International Data Corporation (IDC), worldwide spending on AI is estimated to more than double from \$50.1 billion in 2020 to over \$110 billion by 2024.

However, not all businesses have the financial clout or resource strength to deploy Al solutions on their own. That's where Artificial Intelligence as a Service (AlaaS) comes in. AlaaS refers to off-the-shelf Al tools that enable companies to implement and scale Al techniques at a fraction of the cost of a complete, in-house Al. The concept of 'Everything as a Service' is growing, and AlaaS is not divorced from this trend. The global AlaaS market is tipped to rise by \$14.7 billion from 2021 to 2025 (Source: Technavio).



How businesses have leveraged AIaaS

Al is a specialized form of SaaS intended for companies and individuals who do not have the expertise, financial resources, infrastructure, or desire to build and deploy Al systems inhouse. Some marquee global brands have used it to radically transform CX and business outcomes. In February 2023, Coca-Cola embarked on a groundbreaking collaboration with OpenAI, harnessing the power of their cutting-edge DALL-E2 model and ChatGPT for some truly innovative marketing endeavors. One of the standout initiatives was the Al-powered Masterpiece campaign. This captivating campaign ingeniously intertwined timeless artworks from various eras, skillfully narrating the compelling journey of a Coca-Cola bottle as it ventured towards a curious student in search of inspiration.

AlaaS has a bouquet of services- Machine-Learning-as-a-service, **Natural language processing (NLP)** services, Speech recognition and generation services, **Computer vision** services, Recommendation services, Predictive analytics services, Data pre-processing services, and **Robotic Process Automation (RPA)**.

Benefits of using AIaaS

Lesser upfront financial and resource investment: Organizations no longer have to go through the hassle of researching, building, or maintaining their AI technology and tools. Investing in another company's AI solutions might seem costly. Still, it is a much more affordable option that demands minimal resources to get started. In most cases, users pay a subscription fee, pay only for what they use, and/or can opt out or scale up whenever their tooling requirements change.

Transparent pricing: Many AlaaS vendors offer subscription-based or unit-based pricing for their solutions. By keeping track of your usage and payment schedules, you can easily understand the cost of AlaaS from beginning to end.

Limited AI skill requirements: Depending on the AI tools and AlaaS provider you choose, your team may not need to know how AI tools work or how to set them up. Most of these providers take care of your team's setup and ongoing maintenance. This feature of AlaaS is democratizing AI for everyone.

Scalability: Has your team's Al tooling requirements or budget experienced significant growth? Are you going through a tough quarter and need to reduce third-party investments? No matter the situation, AlaaS is usually offered through a flexible subscription model. This means you have the freedom to scale up or scale down as your needs evolve. So, whether expanding or tightening your belt, AlaaS has got you covered.



What's the downside of using AIaaS?

Little transparency in training and implementation: While numerous AI vendors strive to enhance their transparency, particularly in light of impending AI regulations, more work remains to be done. The current training methods of most AI models, the data utilized, and how this data has been collected remain unclear. This lack of clarity may give rise to ethical concerns and potential security and compliance issues if organizations fail to exercise caution.

Data governance and security concerns: AlaaS solutions are provided by third-party cloud platforms, each with its own integrated security and governance features. While these capabilities can enhance your security measures and compliance strategies, they often need to meet your in-house standards for security and compliance.

Limited customization opportunities: While some AlaaS options, such as fine-tuning models, provide ample opportunities for flexible customization, other tools pose challenges when tailoring and incorporating features that align with your operational needs. Building and managing your own Al tools is the ideal approach for achieving the highest levels of customization. However, this can swiftly become a costly and complex endeavor to handle internally.

What CSM Tech offers as AIaaS Capabilities?

CSM Tech set foot on the **Generative AI** pathway by rolling out **Medhak**. This AI-powered NLP chatbot understands and generates text based on the prompts and keywords you provide. **Building on the success of this conversational bot, we have come up with Medha AI 2.0, our in-house AlaaS offering. It offers various AI services for governments and enterprises like predictive analytics, NLP, Computer Vision solutions, personalized recommendation engines, semantic search, speech recognition and speech synthesis, automated content generation & sentiment analysis, and emotion recognition. Our development approach includes understanding the nuances of business, identifying functional and non-functional use cases, and defining the final use case. We have selected the 'adapt and align' model underpinned by prompt engineering, model fine-tuning and evaluation, and performing Reinforcement Learning with Human Feedback.**

AlaaS offers numerous benefits that attract early adopters. However, its few drawbacks indicate that there is ample room for improvement. Although there may be challenges in developing AlaaS, it is likely to be just as significant as other "as a service" offerings.



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