Mobility Plaza®

The role of AI in modern fuel retail

As the industry embraces this revolutionary technology, uncertainties regarding its scope and limitations continue to grow. We explore some of the questions and debates machine learning's implementation raises within the sector.

The AI revolution is upon us. While the technology's development has been tackled before, tools such as ChatGPT and DALL-E becoming publicly accessible this year triggered a series of debates around its impact on modern society. Conversations on job displacement, redefining creativity, the boundaries of privacy and AI's accountability have escalated to discussions about the legal framework for AI's implementations.

For instance, some see machine learning as an enabler of faster and more efficient operations, while others worry about its impact on the workforce. As uncertainty grows, the truth is that a new industrial revolution is on the horizon, prompting fuel retailers to explore the role of AI within their businesses. PetrolPlaza talked to developers and retailers about the technology's impact on their businesses and how it will drive the evolution of the industry.

Crack the code

Overestimation tends to be a common response whenever new technologies emerge. This tendency has become more evident with the advent of AI, as sometimes understanding how ChatGPT interacts with users is less important than knowing if the tool provides accurate responses to their queries. Grasping an AI's functionality is useful to help retailers achieve their goals but also to recognize their limits.

Frodi Hammer, Founder and CEO of A2i Systems | © A2i Systems

"AI is a bit like rocket science, right? A small group of experts spend a lot of time building AI models and then a much larger group can use and customize these models for their own needs," explains Frodi Hammer, Founder and CEO of A2i Systems, a developer of customer-centric AI-driven fuel price optimization software.

The firm's solution is currently deployed at over 10,000 stations across ten European countries. Hammer emphasizes the importance of being as

crystal clear as possible with retailers. "Being able to explain AI is super important. Like Elton John sings in Rocket Man: 'All this science I don't understand, it's just my job five days a week.' Explain why the model does as it does, what data it needs and the reason behind it," he adds.

This type of approach involves seeing AI as what it is: a tool. Putting the technology on a pedestal is the first thing to avoid when studying a potential deployment. It's not about denying its impact, but to have a better grasp of it. "It's a tool that should support your business, and not dictate how you should do business. To become an AI-fueled organization you must challenge all your processes to see how and where AI just might help you get a competitive advantage," concludes Hammer.

Set the plan in motion

Like any tool, its effectiveness is only truly known when put into use. In their ambition to find that competitive edge, retailers are incorporating AI in different areas. Whether it's optimizing refueling processes, enhancing the convenience store experience, or streamlining maintenance operations. Although implementations may vary, there is one constant that remains – ambition to excel at what they do best.

Galp has been deploying its "Smart Store" convenience store concept at stations in Portugal and Spain for a year now. By partnering with Portuguese startup Sensei, the fuel retailer has established three autonomous c-stores that offer an AI-based frictionless experience. "It is all about putting technology in service of the customer to maximize their experience," details David Álvaro, Retail

Director at Galp.

David Álvaro, Retail Director | © Galp

The company firmly believes in the potential of AI to enhance operations across various business areas. "Accurate data analysis allows us to recommend relevant products to our customers, offer specific discounts or adjust a site's layout. This type of personalized offer improves customer satisfaction and fosters brand loyalty," he states.

In addition to retail operations, the brand is leveraging machine learning-based predictive analytics to strategically expand its electric vehicle (EV) charging network and optimize energy production in solar parks. All of these improvements align with Galp's commitment to fostering innovation across its operations in recent years.

"Galp's goal is to offer 100% digital and integrated solutions across its network to meet the expectations of an increasingly interconnected society," adds Álvaro. This ambition is not about pursuing innovation for the sake of it, but rather about adapting to the ongoing transformation within the industry. The retailer is carrying out additional development projects, such as investing in alternative fuels and transforming its 1,475 service stations into mobility hubs, among others.

Make adjustments

The fuel retail industry is past the initial implementation stages of AI. It now finds itself in a maintenance phase where its real role is set to be defined. Although it is currently redefining everyday operations and minimizing human involvement in repetitive tasks, the extent of its impact remains unknown.

"We've actually seen the opposite with our customers, where enabling AI requires more headcount instead of less. There's a lot of capabilities that get unlocked and still require people to manage them," describes Tim Arits, CEO of InTouch. The company has developed a two-sided media network for both retailers and advertisers that harnesses AI for the hyper-targetization of content inside stores.

Having more accurate data available and being able to streamline processes does not automatically translate to a reduced workload. The difference lies in the possibility of seeing a bigger and clearer picture of the business. As a result, tasks can now emphasize comprehensive decision-making rather than getting caught up in repetitive processes. Strategy above tactics.

"It allows us to be at the forefront of innovation in the retail sector, optimize our business and access new tools to interact with customers in a personalized way. Always with the goal of having a better understanding of what they want, when and how," summarizes David Álvaro.

As with the wheel, mankind has learned that if a technological advancement yields unprecedented positive outcomes, it is here to stay. "AI won't replace humans – but humans with AI will replace humans without AI. Just as we have seen humans with computers replaced humans without computers," describes Frodi Hammer. The industry will certainly see AI regulation moving forward, but the true challenge lies in determining how AI fits into each unique business.