Al avatar as a sales trainer

OEM implements new training concept with AI services from AWS

"GenAl is ideal for efficiently implementing innovative, interactive training formats. With the AWS-based avatar, we have created an easily reproducible solution for sales and marketing."

Artur Schneider, T-Systems AI expert

The automotive industry is undergoing a profound transformation toward software-defined, electric vehicles. The contribution of digital components to a vehicle's overall value is steadily increasing. Simultaneously, the market environment is becoming more dynamic, driven by advancements in technology and processes. To stay competitive and respond swiftly to customer demands, OEMs (Original Equipment Manufacturers) have significantly shortened the time to market for new vehicle development, now introducing new models every two to three years on average. This accelerated pace of innovation impacts not only production but also marketing and sales strategies.

Like its competitors in the automotive industry, a European OEM is closely monitoring advancements in digitalization to stay ahead of emerging trends and opportunities. What added value can artificial intelligence bring, for example? How can it generate competitive advantages, enhance efficiency, or empower and support employees?



At a glance

- Need for innovative training concept at OEM
- Existing classroom training courses are too inflexible, cost-intensive and difficult to organize
- Limited availability of trainers
- Individualization of training courses
- Development of an AI-based avatar operated and hosted on AWS
- Natural language processing (spoken word for interaction with avatar)
- GenAl: Large Language Model (LLM) from Amazon Bedrock
- Enrichment of the LLM via RAG (Retrieval Augmented Generation)
- Flexible, individualized learning
- Efficient implementation of training courses (independent of time and location)
- Complete service from a single source
- Fast realization

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Reference in detail

Dustomer pain points

The increasing number of models and a wide range of customization options, as well as vehicle specifications, posed major challenges for the sales management of a European OEM: How can sales staff stay up to date with information and details on new vehicle models? Traditional approaches, such as face-to-face training, resulted in high travel costs and logistical challenges. But training staff for online training, for example, is also in short supply. At the same time, different sales employees have different training needs, which the OEM was unable to meet with standard training courses (video sessions, e.g., lack interactivity and the option to raise and respond to questions).

The aim was to create an interactive, intensive learning experience with individual content on products and sales methods that would allow every employee to perform their training regardless of time and place. At the same time, the sales management wanted the training program to be easy and efficient to organize. The launch of a new vehicle model was to be used to test the suitability of artificial intelligence for the training courses.

O How T-Systems solved it

"To create a training experience that is as realistic and personal as possible, we developed a digital avatar together with the OEM. It takes on the role of the trainer in the training sessions and provides the participants with the necessary knowledge about the new model," says Artur Schneider, AI expert at T-Systems, explaining the solution approach.

The solution consists of several components. The technical basis for the avatar is services from Unreal Engine and AWS. The avatar itself is running in Unreal Engine, while the powerful cloud platform from AWS takes care of the rest. First of all, AWS offers strong scalability based on training needs - including the necessary GPU resources to run an AI avatar. In addition, AWS also offers a wealth of ready-to-use language processing and AI services that can be easily integrated into functional solutions: Amazon Transcribe transforms audio to text, and Amazon Polly reverses text to audio.

But understanding language is, of course, not enough to hold training courses. This is where artificial intelligence, resp. Gen AI, comes into play: A Large Language Model (LLM) operates in the background, which is provided from Bedrock. The pre-trained LLM receives specific context and product information via RAG (Retrieval Augmented Generation). A knowledge base is created in Amazon Bedrock, which then generates an Amazon OpenSearch vector database containing the necessary documents. When a user asks a question, a relevant query is created in the vector database, and the necessary information is sent to a Large Language Model (LLM) to generate the most appropriate answer. Therefore, the avatar has the latest information on the vehicle model at anytime.

The final avatar is simply made available via a web browser. The background AWS capacities ensure real-time communication with interested parties without long waiting times.



Why T-Systems?

Solution from a single source: T-Systems combines excellent AWS know-how with AI expertise and ensures rapid implementation.

\overleftrightarrow Business impact

Training participants can talk directly to the avatar using natural language processing and output. This creates an individual discussion. Beyond that, the online availability of the training service allows sales staff to plan their training times according to their personal schedule. The OEM makes its training concept more flexible and offers its employees a new and intensive learning experience, regardless of the availability of trainers.

The customer did not need any prior AI knowledge to develop the avatar. The T-Systems team delivered the solution from a single source. This prototype was continuously optimized with internal data, demonstrating a commitment to quality and on-going improvement.

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