——— RAMONA HÖNL

"We need AI to be competitive"

In this interview, Sarah Engel, Head of AI at TRUMPF, talks about why the company is relying on artificial intelligence (AI), how it will change the way employees work and where the limits of AI are.

Why does TRUMPF rely on AI?

Engel: Because we are convinced that AI is a decisive factor for the future of our work, our products and our services. AI enables us to optimize processes, increase efficiency and offer our customers innovative solutions to strengthen their competitiveness. TRUMPF is committed to innovation of high technology - and we want to play a leading role in the industry when it comes to AI as well.

In which areas at TRUMPF is the potential of AI particularly great?

Engel: Let me briefly explain what makes AI special: it is a technology that imitates cognitive abilities, such as speech comprehension, image processing or pattern recognition. AI uses large amounts of data, statistics and learning mechanisms to do this. The areas of application are diverse. Among other things, AI helps to analyze data, identify regularities and irregularities, make predictions, automate processes, generate texts and images or operate knowledge management. We want to use AI extensively to create added value in as many areas of our company as possible - for example in sales, human resources, research, development and in the production of our products and services.

Can the efficiency gains achieved through AI be expressed in figures?

Engel: Yes. Our aim is to identify fields of application in which AI creates significant value. We want to implement this step by step. The added value of AI extends across all areas of the company and varies depending on the application. We have already identified a number of potential benefits, such as faster and more personalized customer service, more cost-effective and comprehensive training, more efficient software development, savings in production costs and energy, and revenue growth thanks to innovations in our products and services. We are not running out of use cases. It is much more a question of implementing them in a focused manner and realizing the added value in a measurable way.

How does TRUMPF train its employees to work with AI?

Engel: For TRUMPF employees, initial offers are available on our intranet for further training on the topic of AI – from

beginners to experts. This includes training courses, mentoring and interdisciplinary working groups. We are constantly expanding our offering. We also train AI experts throughout the company and deepen their expertise in specific specialist areas. The curiosity and motivation of TRUMPF employees are a great advantage for further development and for anchoring AI in the company.

At internal events, TRUMPF employees can learn about artificial intelligence and exchange ideas with each other.

What challenges does TRUMPF face in its transformation into an AI-driven company?

Engel: Work will change dramatically as a result of AI. As a company, for example, we need to become even more agile and flexible - this applies to our processes, but also to us as individuals. We need more courage to make decisions, courage to take action, and courage to keep moving forward. In addition, a number of technical requirements need to be met in order to apply the added value of AI in the individual areas of the company.

What competitive advantages does TRUMPF have when it comes to developing AI solutions for industry?

Engel: The combination of specialist knowledge, customer orientation, innovative strength and a sense of responsibility gives us a competitive edge. As a solution provider, we have full control of our process chains - from hardware to service. This enables us to integrate AI into products and processes that are precisely tailored to our customers' requirements. It is also a priority for us to act responsibly. This also includes handling our customers' data sensitively when it comes to AI. The fact that they trust us gives us further competitive advantages and positions us as a trustworthy partner in the industry.

How can a company with German roots avoid missing the boat when it comes to AI?

Engel: Europe has a unique opportunity to combine its deep-rooted industrial expertise and clear sense of responsibility with AI technology. I see this combination as the key to sustainable innovation. This is where we differ fundamentally from countries such as the USA and China.

Why do we still need humans?

Engel: People are and will remain the focus. AI brings with it technological progress comparable to the steam engine, the printing press or electricity. It serves as a tool to support us and push us beyond our limits.

What measures does TRUMPF take in the area of data protection?

Engel: Responsible use of AI goes hand in hand with data protection at TRUMPF. In addition to technological security mechanisms, it is important to understand that data protection starts with each individual employee. Here is an example: Large Language Models (LLMs) such as ChatGPT use huge amounts of data to deliver results. If employees use public AI tools, sensitive or business-critical data may be leaked - this must be avoided as a matter of urgency. When developing AI, we always first consider what data is being used for which purposes, what the risks are and how we can keep them in check. When it comes to data security, we work closely with our legal, IT and cyber security departments.

What are your favorite AI tools?

Engel: I hardly ever use google anymore and instead use AI tools such as Perplexity or Claude. It facilitates research immensely, can deal much more precisely with the context, and sources make it possible to check the answers. I also use our internal AI tool blueGPT in my daily work at TRUMPF. I would advise all colleagues who have never worked with AI to try out various AI tools. You can also use them to learn how to work with them.

About Sarah Engel

<p>Sarah Engel is fascinated by the interface between humans and AI, and especially by how artificial intelligence can be used in a trustworthy way. She studied cognitive science and neuroinformatics in Tübingen and Ulm in Germany. In her previous positions at IBM and Capgemini, she advised and supported companies on AI and added value - from strategy to scaled implementation. At TRUMPF, she is particularly looking forward to working creatively in an innovative environment and, together with various departments, taking a big step forward in the field of AI.</p>

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SPOKESPERSON FOR MACHINE TOOLS