# How AI makes the world of work more inclusive

***With the help of Artificial Intelligence (AI) the world of work is becoming more flexible – opening up more possibilities for people with impairments. Many of these applications will be introduced at REHACARE 2024. How AI helps to reduce barriers in concrete terms is explained by Prof. Dr. Jochen Steil of the Institute of Robotics and Process Control at the Braunschweig Technical University in this interview.***

**Can Artificial Intelligence fundamentally contribute to more inclusion in the world of work?**

**Steil**: Yes, because technical possibilities can compensate for impairments. Take such aids as automatic reading out loud, image interpretation, translations or dictating texts without using keyboards or buttons for example. Such methods basically help all people and are designed to do just that – but they specifically support people with impairments.

**How can Artificial Intelligence help to break down barriers at the workplace?**

**Steil**: Disabilities emerge when impairments come up against barriers that then curtail development opportunities. In the world of work, for example, this is caused by complicated instructions or directions that are not understood. With the help of AI, workflows can be explained in a simple way. This helps to compensate not only for information deficits but also language barriers: people learn how something works – even though they come from another country and are unfamiliar with some rules here.

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**So AI contributes to creating jobs for a diverse workforce?**

**Steil**: One the one hand, it provides options for inclusion, on the other, the diversity of impairments makes personalised solutions necessary. Personalisation is the prerequisite for adoption. Especially for severe impairments the need for adaptation is higher as a rule. This is probably the biggest difficulty: we need technical systems that are adapted to the individual demands and still so flexible that they can adapt further over time. After all, physical and mental skills change. It can, for example, be necessary for a robot to move more slowly in human interaction – instead of setting a pace that the operator can no longer keep up with.

**What role do ethical and legal considerations play in the development of inclusive AI systems?**



**Steil**: They play a prominent role because technical and AI systems can only assist when processing data that also always reveal information on the situation, the person and their performance. This opens the door for new monitoring and control possibilities that we must keep an eye on.

**Are AI technologies already successfully employed at work?**

**Steil**: AI technologies are not employed as often as it would be possible. In addition to the aforementioned need for adaptation, a tech-savvy environment and structural prerequisites such as a certain level of know-how are required for technical solutions to really be deployed. In this respect Germany suffers from huge pent-up demand.  Academic research results are often not translated into real products, let alone for the mass market.
Nonetheless, we currently see many changes caused by the use of generative AI, which generates new images or videos on the basis of data entries. In future, we will be able to talk to machines – and

they will be able to respond, also in different languages. This can also promote inclusion.

**What challenges do you see in the application of AI solutions that promote inclusion?**

**Steil**: Impairments can take many shapes – and jobs also tend to vary greatly. Off-the-shelf solutions will therefore be less probable. Add to this Germany's still backward digital infrastructure – digital technology continues to be underused and many people take a rather sceptical stance to it. This also makes its use in practice more difficult. Beyond this, strict regulations here hinder and increase the costs of experiments and their exploitation for better inclusion. Another challenge is to manufacture tailor-made, adapted and adaptable assistive systems at reasonable costs.



**Info**

Prof. Steil is significantly involved in the whitepaper entitled "Mit KI zu mehr Teilhabe in der Arbeitswelt" (With AI towards Increased Participation in the World of Work" by the Lernende Systeme platform. Read more about this here: https://www.plattform-lernende-systeme.de/files/Downloads/Publikationen/AG2_WP_KI_Teilhabe_in_der_Arbeitswelt.pdf

In the KI.ASSIST project many people representing different perspectives work towards the joint aim of improving the participation of people with severe disabilities in the working world. KI.ASSIST stands for "Assistenzdienste und Künstliche Intelligenz für Menschen mit Schwerbehinderung in der beruflichen Rehabilitation" (Assistance Services and AI for the Severely Disabled in Professional Rehabilitation). It is subsidised with

resources from the equalisation fund by the Federal Ministry of Labour and Social Affairs (BMAS). https://www.ki-assist.de

PIKSL brings together people with and without disabilities to make inclusion happen through innovative ideas. PIKSL is short for "Personenzentrierte Interaktion und Kommunikation für mehr Selbstbestimmung im Leben" (Person-Centred Interaction and Communication for More Self-Determination in Life)
https://piksl.net

***Author: Natascha Plankermann, journalist, specialised in health and medical subjects.***

**Info REHACARE 2024**

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REHACARE 2024 trade fair: from 25 to 28 September 2024 a unique community of people with disabilities, their families, carers and supporters as well as companies specialising in the needs of these people will come together in Düsseldorf. REHACARE provides an international platform to exchange ideas with experts as well as like-minded people. There are multiple opportunities here to make new contacts and find out about the current developments and trends. These include both digital and analogue mobility solutions, medical aids and care and therapy offers but also inclusive sports and leisure options.

*For more information on Rehacare 2024 including the exhibitors' and event programme, please visit the official website of the trade fair: www.rehacare.de*

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