

# EDITORIAL

---

Dear reader,

Nowadays, artificial intelligence can outperform even the most intelligent humans – yet in other aspects, AI is less capable than any toddler. This is because machine learning systems are characterized by extremely specialized knowledge – they do specific tasks very well, but nothing else. When it comes to identifying complex patterns in large volumes of data, artificial intelligence is particularly hard to beat. This is why AI is increasingly being used in medicine. Algorithms can be trained to estimate the risk of mental health disorders using a large number of physiological parameters and clinical findings.

3

Yet they are completely useless for all tasks outside their specialized area. Moreover, it is often impossible to deduce how algorithms arrive at their conclusions, not least because the programs often fail to understand the correlations they uncover – and they have nothing like the understanding of the world around them that even small children have.

However, researchers are now developing algorithms in such a way that it is at least possible to identify the criteria they use for their decision-making. This is absolutely vital, not only in medicine but also for bank loans, road traffic, and other areas in which decisions made by artificial intelligence have far-reaching effects for humanity. It also highlights the ethical questions that arise when algorithms make decisions for and about us. For this reason, researchers are exploring the criteria that apply in such cases. After all, we humans should be able to dictate what algorithms can and cannot do.

This issue focuses on artificial intelligence with the aim of providing some food for thought. We hope you will find it exciting reading!

Your editorial team