

Will robots replace us?

Focusing on solving everyday problems with patients, performing surgery, dealing with complications, and the daily struggle for the economic profit of our clinics, we are beginning to lose sight of the broader view of medicine and our fields in general. Modern technologies and their use have always accompanied medicine, but these changes have mostly been evolutionary.

With the development of artificial intelligence, big data analysis, and robotics, however, we are on the threshold of a disruptive – revolutionary – change. Even if it may not seem that way to us. This paradox stems from human psychology, which perceives development as a linear function, but technology, as we know from the broader application of Moore's Law, is developing exponentially, and what is a marginal issue today will far exceed our expectations in two years. If I had told you three years ago that you would be talking to a computer via AI as if it were a human being and receiving relevant answers, you wouldn't have believed me either. And yet this is today's reality. Therefore, this change cannot be underestimated. And we are talking about AI models based on text analysis, but scientists are already working on models that will be based on image analysis, which will take AI to a completely different dimension.

Relevant experimental articles are increasingly appearing in professional surgical literature on the use of not only robot-assisted but also fully autonomous robotic surgery, not only on hard tissues, such as bones and teeth, but also on soft tissues, such as cholecystectomy [1,2].

I think now it's time to prepare for this change. Darwin's teachings show us that it is not the strongest, most skilled, or smartest who survive, but only those who can adapt. However, this requires us to pause for a moment and, above all, understand where technology is heading and then clearly define the insurmountable boundaries (moral, professional, ethical, and economic) of our coexistence with these technologies.

It is also in our vital interest to start protecting our know-how, which we often unknowingly release into the virtual world through various forms of digital therapy planning. Someone collects and analyzes this data and creates algorithms that will one day completely replace us, or we will have to pay to use them. "Data is the new oil" is a narrative that resonates in all large companies from Silicon Valley to Shanghai. So, let's start a realistic discussion about how to protect our know-how [3].

To answer the question at the beginning of this editorial: I am convinced that



yes; however, we must ensure that we are on the winning side of this change, not on the losing side.

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References

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