

## SHORT ABSTRACT

# Real-Life Artificial Intelligence Applications

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Artificial intelligence (AI), particularly deep learning, is currently at the top of the hype cycle. Application of this technology to the analysis of medical images is attracting a lot of attention worldwide.

At the same time, the average radiologist is using very little to no AI tools in her daily practice. This lecture provides a brief explanation of deep learning and explains what makes this technology different from previous approaches and why it is so powerful. A number of AI applications, some in use that were developed and commercialized in our research group, are presented. These applications serve as examples to define

a number of different types of AI products that differ in the way they are placed in (or outside) the workflow of radiologists. This lecture emphasizes how some of these tools replace (a small part of the work of) radiologists, while other augment radiologists, and yet others take the radiologists out of the loop in the care cycle of the patient. Finally, it is discussed how radiologists can, and should, be involved in the development of real-life AI applications.

### **Competing Interests**

The author has no competing interests to declare.

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