4 reasons why healthcare management should focus on AI in radiology

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It is not uncommon that healthcare management teams are heavily pressed for time. Why should they put AI solutions for their radiology department on their priority list? In this blog post, we propose 4 reasons why board members of hospitals and private clinics should put AI in radiology on their agenda and develop a strategy for incorporating AI solutions.

1. AI will help to increase the number of patients helped

Radiologists suffer an extensive workload, which is due to a yearly increasing number of medical images acquired. Therefore, it is becoming impossible for radiologists to handle all requested radiology exams with the right attention within a reasonable amount of time, leading to increased patient waiting times. What if there was a solution that could give radiologists a head start for every image they assess? Such solutions can help radiologists to establish a diagnosis faster, allowing more exams to be evaluated in the same amount of time, thereby reducing waiting times for patients. Many AI radiology tools are ideally suited to provide solutions with time-saving potential.

2. AI will improve quality of care

Healthcare has changed dramatically over the past decades, with radiology being one of the major fields driving this transformation. After the invention of X-ray at the end of the 19th century and the realization of the vast value it could add to the diagnostic process, scientists have discovered and developed a whole array of other imaging techniques that made it into clinical practice. Diagnostics is incomparable to what it was mid last century, largely due to the increasing role of radiology and the technology enabling the radiologists. AI will create a similar revolution by further improving the possibilities and quality of diagnostics. This can then, for example, support personalized treatment through precision medicine. This will strongly enhance the quality of care patients will receive.

Patients will also experience better service. The field of healthcare is being practiced more and more in private centres, creating a stronger consumer-focused industry. At such facilities, patients expect a certain level of service. Many aspects of this service can be supported and enhanced using AI. For example, speeding up diagnostic processes using AI will lead to shorter waiting times. Or the implementation of AI-based standard reporting can help create result summaries that are easier to understand for patients. High-quality service, in turn, will lead to higher patient loyalty.

3. AI will realise cost savings

What is the financial benefit? This question often makes people uncomfortable, but let's be honest, it is an important driver for many decisions, also in healthcare. Fortunately, the answer AI gives us, paints a positive outlook. AI in radiology can help save costs in a number of ways. It will offer automation of analysing the unambiguous images; it can create more efficient workflows by supporting the development of an optimal schedule or an accelerated scanning protocol. Additionally, it can improve diagnostic quality by decreasing the number of false positives and false negatives, leading to savings in the diagnostic process or the treatment trajectory respectively.

4. AI will make for happier radiologists

Currently, radiologists spend a substantial part of their valuable time on simpler, more repetitive cases. The considerable growth of medical scans acquired each year will only ask radiologists to speed up their reading and cover more images in less time. Fully digesting interesting, more complicated cases will get more challenging, if not impossible. AI software would be ideally suited to handle straightforward images for two reasons. Firstly, simple cases are likely to have a large volume; hence a considerable amount of data will be available to train a strong

performing algorithm. Secondly, these tasks are often easier for an algorithm to learn. For example, assessing a 2D x-ray is less complicated than evaluating a 3D MRI. Deploying AI solutions in this area will leave the radiologist with more time to spend on difficult cases.

Get started with AI in radiology

Artificial intelligence has the potential to greatly improve patient care and deliver significant value in the radiology workflow. All factors discussed above are obviously interconnected, however, the type of value that is most worthwhile to pursue differs per institute and its focus. It is important to start with listing the internal goals, mapping where the organization lags behind and where AI has the most potential to identify the best areas to start implementing artificial intelligence solutions.

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