



# ARTIFICIAL INTELLIGENCE NEEDS **DIGITAL LEADERS**

—  
AND

**fast!** 

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**qER Suite**

Enable timely care with Head CT AI

**qMSK Shoulder**

AI assistant to spot signs of fracture



AI for Breast Cancer Screening

**qXR - TB**

AI powered TB care cascades

**qMSK Forearm**

**qMSK Pelvis**

**qMSK Tibia-Fibula**

**qMSK Ankle**

**qMSK Foot**

**qCT Adaptable AI**

Catching lung cancer early

**qXR - NvA**

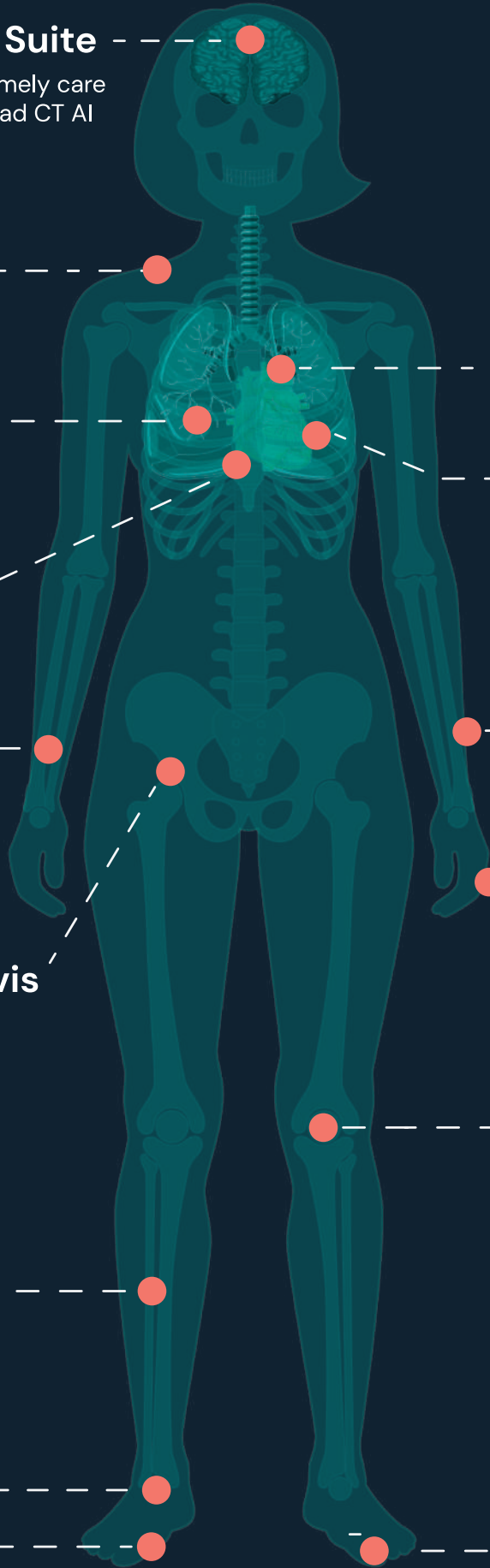
Complete reporting assistance on CXRs

**qMSK Wrist**

**qMSK Fingers**

**qMSK Knee**

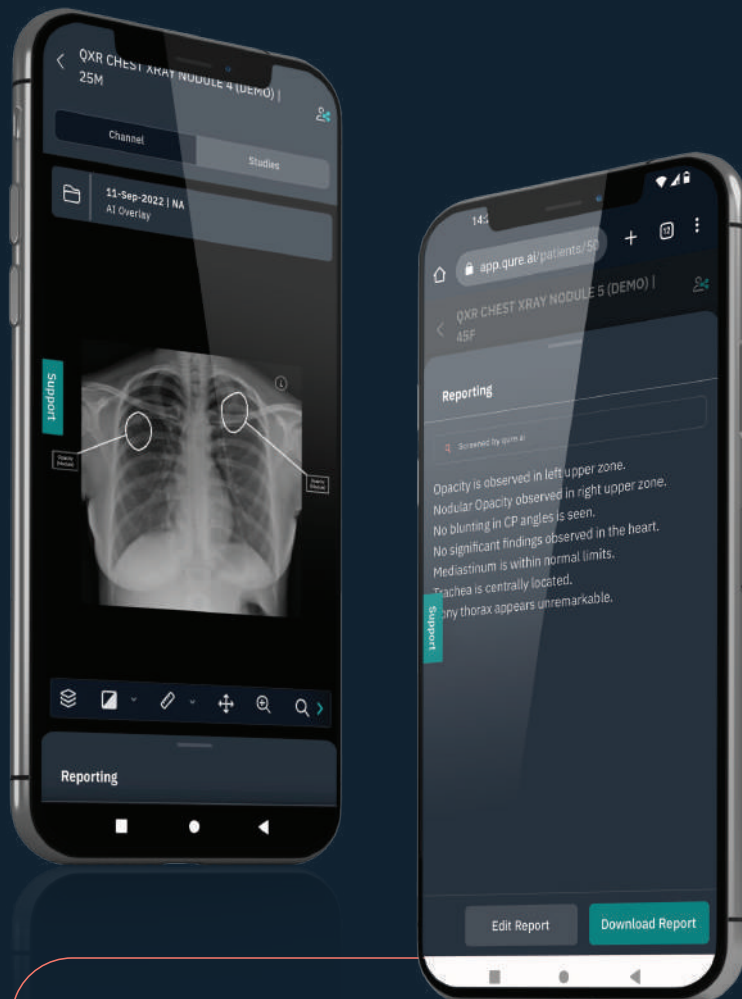
**qMSK Toes**



# INTRODUCTION

Our world is surrounded and enveloped by the digital (cloud), and our healthcare is becoming digital too. As a result, digital leadership in healthcare is gaining momentum, and artificial intelligence (AI) is at the forefront of accelerating this.

Many companies operating in the AI space are pioneers in radiology (1). Their AI solutions help in the early and timely diagnosis of infectious, non-communicable and traumatic pathologies. In addition, these solutions enable the developed world and help resource-constrained regions to provide better access to healthcare.



INTRODUCTION



We all know that healthcare systems around the world are facing a shortage of healthcare professionals, and AI is bridging this gap. However, visionary leadership is needed to effectively deploy new technologies in a complex healthcare system. A clinician's perspective is essential to lead the adoption of AI in medicine (2).

For example,

*The International Department of Artificial Intelligence in Medicine and Imaging (id:ai:mi) at Caritas Hospital is an initiative to drive innovation in clinical scenarios and use digital innovation to solve clinical pain points. In such an evolving landscape, digital leaders become essential, especially from a medical and business perspective. A digital leader who is a strong advocate of technology can see the potential of technology and help adapt to challenges in healthcare systems, such as managing staff shortages, predicting patient flow, guiding strategic decisions, reducing redundant work and improving the patient experience by personalising clinical care.*

## THE NEED OF THE HOUR

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## CHARACTERISTICS OF DIGITAL LEADERS

We need a new type of leader to manage this rapid transition. These leaders need to have a good grasp of conventional wisdom and an inclination to use digital tools. In addition, these rare digital leaders, who are driving the adoption of AI technologies, need empathy and efficiency. This combination can help translate digital products into clinical use, addressing the unmet needs of patients and healthcare providers. In addition, these leaders must be adept at managing change and have a proven ability to deliver on competing priorities with multiple stakeholders at the intersection of technology and real-world needs.

For example,

*The use of AI (qXR) for TB diagnosis in low-resource settings such as the Everest base camp in Nepal is an exciting example of Qure.ai's leadership in using AI in a challenging climate to deliver healthcare services to remote populations (3).*

# CHARACTERISTICS OF DIGITAL LEADERS

Digital leaders are visionaries who think differently. They focus on creative and strategic thinking to overcome the constraints they face. Their strength lies in avoiding static thinking and challenging the prevailing mindset. Instead, they believe in cultivating big-picture thinking and an optimistic attitude that encourages innovative problem solving in their peers and environment.

For example, the incidental discovery of lung nodules in TB screening programmes using AI is helping to optimise resources in low-income countries (4). The success of such initiatives has encouraged similar programmes to provide integrated lung health screening in resource-poor regions of the world (5).

Digital leaders are agile because they think creatively. Their conclusions are data-driven, and an adaptive approach helps them solve complex problems. As a result, digital leaders lead the way in responding to new technological developments and rising expectations.

Digital leaders embrace collaboration, getting people from different disciplines to work together across professional, functional, sectoral, organisational and geographical boundaries to achieve a common goal.

For example, partnerships between academia and technology start-ups can bring validated, high-confidence solutions to the masses much faster, saving more lives without wasting time.



DIGITAL  
LEADERS

# THE NEXT GENERATION OF HEALTHCARE LEADERS

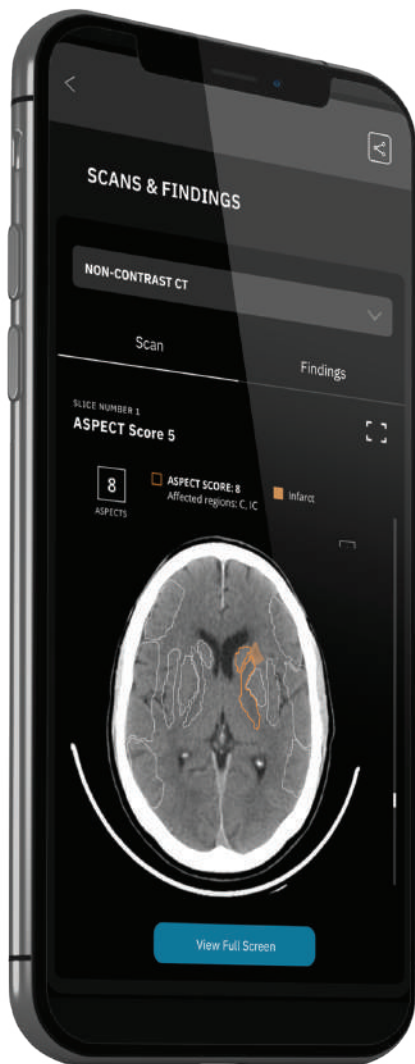
AI adoption is accelerating. We need visionaries who can harness the potential of AI for novel use cases, such as the incidental discovery of heart failure in asymptomatic patients using AI (6). These novel use cases will open up new opportunities for science and great possibilities for patients. However, these disruptive approaches need to be well communicated. Digital leaders are far-sighted and help build trust with users by sharing quickly, transparently and purposefully through various communication channels such as social media, research publications, white papers, symposia, etc. (7).

NEXT GEN  
HEALTHCARE  
LEADERS

# CONCLUSION

## CONCLUSION

Artificial intelligence has huge potential for medicine and healthcare. AI is changing the way clinicians work. As a result, leadership styles need to change with the adoption of AI. It is high time for healthcare organisations to embrace digital leadership at all levels as soon as possible. This will bring significant improvements to stakeholders and everyone in the healthcare ecosystem. However, the benefits of digital can only be realised at individual, team, board and system level if leadership brings coherence to many efforts.



# SUMMARY

## SUMMARY

Digital is becoming central to everyone's role and portfolio, as digital transformation brings multiple benefits. It is being touted as the next leap forward in healthcare, where AI leadership will play a critical role. Cultivating a new era of digital leadership is inevitable, as the benefits outweigh the investment. Improving the quality of care and patient experience, as well as reducing inefficiencies and inequalities, are some of the quantifiable benefits. However, there are many other benefits for which metrics may not yet have been developed.





**Human-machine collaboration is the future – and it is here to stay.**  
The sooner we embrace it,  
the better off we will all be.

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# ABOUT OUR AUTHORS



## Professor Dirk Pickuth

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Professor Pickuth is the Head of the Department of Radiology and former longstanding Medical Director at the CaritasKlinikum, Saarbrücken, Germany. He is the founding Director of the Digital Innovation and Strategy Hub (DISH), responsible for driving digital transformation across all radiological, clinical, operational, and corporate environments. He also established the International Department of Artificial Intelligence in Medicine and Imaging (id:ai:mi). Professor Pickuth is the Lead for the Faculty of Medical Leadership and Management in Europe. As a digital leader with an impressive track record of driving successful technology and business transformation programmes, Professor Pickuth advises on digital transformation, including information governance, in many countries. He has authored several textbooks, including 'Clinical Radiology' and 'Healthcare Executives – The Essentials for Excellence in Leadership and Management'. Professor Pickuth was awarded numerous visiting and honorary professorships at distinguished European universities. His work has also been independently recognised with Honorary Doctorates epitomising the significance and lasting impact of his accomplishments.

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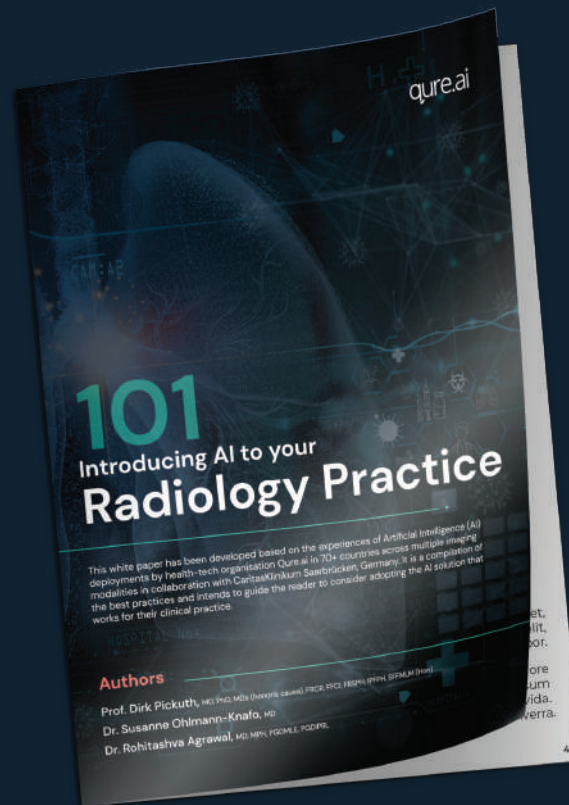
Dr. Ohlmann-Knafo is the Deputy Head of the Department of Radiology at the CaritasKlinikum, Saarbrücken, Germany. She is an extremely experienced radiologist and internationally renowned specialist in the field of Artificial Intelligence. Dr. Ohlmann-Knafo champions radiology IT and clinical workflow improvements, along with transforming ways of working by embedding digital technologies into radiological processes. She shares knowledge, supports development, facilitates effective implementation, and addresses professional issues.

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Dr. Agrawal is a physician with over a decade of healthcare experience in clinical medicine, digital health & oncology research. He has worked in patient care, clinical research, pharma consulting, and global health in corporate, government, academic, and non-profit settings across the globe. Dr. Agrawal completed his Master of Public Health degree from Boston University and trained in Global Health Informatics at MIT, followed by a User-Centered Design in Health Innovations Fellowship from Harvard Medical School. He is passionate about access to medicine and good quality healthcare for all through impactful innovations.



## A guide to maximising radiology efficiency using AI



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