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GE HEALTHCARE
SPECIAL SUPPLEMENT

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Artificial hype

Radiologists, more than any other medical specialty, feel the professional and emotional ‘whiplash’ that began five or so years ago. Vanishing jobs (transforming radiologists into production units) for cost over quality for our patients, to the current shortage and need for more radiologists. AI introduced the threat that automation would take what few positions remained; now we know it can be a powerful tool.

Of the most aggressive debates in medicine is AI vs. physician vs. job. AI, VR, AR, deep/machine learning, 3D printing, developed faster than we imagined. Nevertheless, they are here. While for the most part, massive clinical implementation is still another five or more years away, it is coming. This month, the U.S. launched the American Artificial Intelligence Initiative and other countries will have to follow, sooner or later.

Will AI automatically extract information and present it without the presence of a physician? Yes, this may be quite threatening. Radiologists must justify every examination we perform. Imagine a department, like ours, reaches 400.000 examinations per year- it is impossible! Add to this, we know that about 20 to 30% of examinations we perform are useless. We need to diminish this waste in our healthcare systems and the harm it causes our patients.

This is the renaissance of radiology. AI can empower, raise and place the radiologist in the centre of healthcare. All physicians must take an active role, radiologists especially, to seize this unique opportunity to lead innovation and drive the changes in our field. We can actively be part of the inception and development of new tools, and help shape them to fulfill our needs

and expectations rather than be forced to adapt.

AI implementation, however, is no simple matter. Ultimately it needs infrastructure, significant financial commitments, extensive research and clinical trials to replace the tangible practice we’re called upon to provide every day.

In this issue, HealthManagement.org ventures beyond the AI ‘hype.’ We discuss digital ethics, can machines be moral, and how AI may impact imaging. Experts in the field analyse AI - the 4th healthcare revolution, how to become an AI-powered radiologist, and present state of the art applications in breast imaging. Furthermore, we look into using gamification and VR for ultrasound training and clinical ultrasound in the age of AI. How far are we really from the vast power of AI to act in conjunction with- or instead of- the medical professional?

In our Management and Winning Practices we highlight how trust in teams leads to better healthcare, innovations in paediatric rehabilitation, cardioprotection and lifespan extension by caloric restriction. We host a critical review of muscle injuries in professional FCB players, and present the ‘one stick standard’ for vascular access. We talk about value-based healthcare and the doctor-patient relationship and the role of social media in healthcare.

If you are a radiologist in a dark reading room, dealing with hundreds of exams, images, creating reports, with limited exposure to your clinical colleagues, you may feel the pressure that AI equals ‘danger.’ My impression is to embrace the vast potential of AI to open medical departments, go out into the clinical wards, be active in multi-disciplinary teams and be more ‘clinical.’

So will AI replace physicians? Absolutely not. ■



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