

# AUGNITO

**Reducing clinical  
reporting risks &  
improving diagnostics for  
radiologists at**



CASE STUDY

## The problem

### The vital importance of diagnostic radiology

Diagnosis is critical in improving patient outcomes, be it for cancer, stroke, or heart disease. Radiologists therefore play a critical role in interpreting and reporting highly complex medical examinations to enable clinicians to deliver the correct treatment at the correct time to their patients.

Recognising the importance of radiology to patient care, in late 2020 the UK Government commissioned Professor Sir Mike Richards of the National Screening Committee, to undertake a review of the NHS diagnostics capacity (NHS Long Term Plan).

The independent report, 'Diagnostics: Recovery and Renewal', recommended the need for a new five-year model centred on major expansion and reform with an urgent need to train and recruit new radiologists and ensure that those already in the profession today, remain.

**The figures are stark. According to the Royal College of Radiologists in late 2020 one in ten posts remained unfilled. That figure reached 30% in 2021, the equivalent of 2,000 unfilled posts and is forecast to reach 44% by 2025.**

Becoming a radiologist takes a significant amount of time, dedication, and hard work.

Training begins with a five to six-year degree in medicine and at least seven additional years of post-graduate training, which then needs to be recognised by the General Medical Council. Given the length of time it takes to qualify, any shortages will continue to impact the profession for years and have a negative knock-on effect ranging from a delay in diagnostics, reporting backlogs, and diminished patient care.

Hexarad is one of the UK's leading radiology platform providers and one of the UK's fastest growing start-ups. It was founded in 2016 by four doctors training to be radiologists, who wanted to solve the ongoing and worsening problem of delayed diagnoses.

Hexarad's clinically led radiology platform helps deliver radiology services across the UK and Ireland. Operating for six years, the business currently handles more than 180,000 scans a year for private healthcare and NHS organisations, as well as supporting hospitals to drive internal efficiencies and reduce reporting backlogs.

Dr Jaymin Patel, Chief Operating Officer, Hexarad, stated: "Medical imaging is front and centre to the diagnosis and treatment of many medical conditions. Radiologists are expert doctors whose role is to interpret and report on highly complex scans, as well as perform image-guided surgery and critically provide guidance to other clinicians."

"Hexarad was founded on one guiding principle: that radiology departments are key to an efficient and safe clinical process within healthcare. Radiology is the backbone to early cancer detection, screening services and medical interventional procedures."

"At its core, the Hexarad platform gives healthcare providers the building blocks to optimise their radiology resources, as well as connect them to a network community of radiologists to assist in getting scans reported on quickly and accurately. The business provides a unique end-to-end solution for the healthcare service, solving some of the NHS key staff shortage issues and need for speed and error-free imaging reporting."

### Legacy speech recognition challenges

At the heart of the Hexarad platform is Optirad, a bespoke radiology workflow management software that improves scan reporting productivity and efficiency, enabling radiologists to deliver a patient-centred service. Within the Optirad reporting module lies speech recognition (SR) technology, which provides radiologists with a faster way to deliver diagnostic reports.

Dr Patel continued: "From the launch of our platform we had relied on a legacy speech

recognition solution from one of the established vendors. But it was cumbersome and required significant manual, off-line manipulation by radiologists which was costing them time. For healthcare providers and radiologists alike, this raised considerable issues with productivity, efficiency, morale, and patient-safety.

It was not an enterprise-wide solution, so changes had to be done on a local level rather than just once on the central platform. In addition, we had numerous complaints regarding the accuracy of the dictation from our radiologists."

**"We knew we needed to find a more reliable speech recognition solution; one that would be better suited to our enterprise and present a more user-friendly environment for our radiologists to dictate into and report through. We needed a solution that was less of a time-drain and less open to clinical risk."**

## The solution

Hexarad began the search for a new SR solution in June 2021, but it soon became clear that none of the existing applications matched the company's immediate and long-term objectives. That is until it came across Augnito.

**Tim Baker, CTO, Hexarad, commented: "It was essential for us to find a solution that would easily integrate with our platform and one that would take the time pressure off our radiologists, ensuring they focus on what they do best and not be distracted by having to divert valuable time to undertake what should be straight forward tasks."**

"We heard about Augnito and started evaluating and running its Voice Services product soon after its UK launch in September 2021. It was a breath of fresh air to find a solution that can, and does, quickly underpin the vital work our radiologists perform."

Developed by Scribetechnology and based on 20 years of hands-on experience delivering transcription and digital dictation services to the NHS, Augnito was built in close partnership with clinicians – using human centred design to create a Natural Language Processing engine to fit their needs, not the other way round. As a result, Augnito supports a wider variety of clinical and medical speciality and sub-speciality vocabularies and workflows.

The Augnito suite provides both a multi-platform product for desktops, mobile devices, web and browser applications, and an API & SDK product that is easy to develop and design with, and that integrates with most clinical systems. For Hexarad, Augnito offered a secure, efficient and seamless way to work – providing the true enterprise capability and flexibility that the management team were looking for.

In addition to ease of integration, being cloud-based was also a key requirement and contributed to Hexarad's decision to migrate to Augnito, as it removed the need for its IT team to support the solution on-premise with additional hardware, software and maintenance. Product application enhancements are also deployed centrally in the cloud as soon as they are ready for release, without having to upgrade locally installed versions. This reduces dependency on IT resources, potential associated product downtime, delays, and further costs.

**Dr Patel added: "Augnito did exactly what we needed it to do, seamlessly and efficiently. The integration provided a rapid deployment and roll-out for us, taking a total of just 12 weeks. The API was outstanding and entirely customisable to our needs."**

"Augnito also put an end to the cutting and pasting of text that our radiologists were having to apply to their reports and instead provided us with a high level of speech recognition accuracy. The transcribed text appears exactly where we want it, alleviating the clinical risk which our radiologist reporters were experiencing with the previous SR solution. Based on what I can only say is the extraordinary ability to identify dialects and accents, I have not seen anything like Augnito."

## The results

**"We have deployed Augnito to the 90 radiologists we have in the field. The migration was met with support from our radiologist community. Subsequently there has been very positive feedback from them and for the first time since speech-enabling our Hexarad platform 5 years ago, we have received unsolicited constructive emails welcoming the improvements."**

"Our radiologists are now able to spend more time on detailed analysis of the patients' scans as well as increasing the number of scans and reports they complete, as opposed to taking time to view and review the dictation text and checking its accuracy. This translates into higher quality reports, less data errors, improved diagnostic accuracy, and more efficient and happy radiologists. This can only lead to better patient outcomes," added Dr Jaymin Patel.

Tim Baker concluded: "A key benefit for me was the close working relationship we have forged with the Augnito sales and UK development team. One of the guiding principles that drives Hexarad is quality customer service. It is central to what our business stands for, so

we were looking for a vendor with the same values - it was not just a nice-to-have, but a must-have. The Augnito team has excelled in terms of delivery and customer service from pre-sales through to implementation. Nothing has been too much to ask, they have been with us throughout the integration and migration journey."

Shiraz Austin, Co-Founder and Managing Director Scribotech (UK) Ltd. added: "We pride ourselves not just on delivering an intuitive voice-AI SR solution for radiologists, but in our total focus on customer service. We share Hexarad's vision for improving outcomes for patients based on efficient and accurate medical information. This cultural healthcare technology fit is central to what I believe will be a long-lasting business partnership."

Dr Patel concluded: "Hexarad is a clinical-led organisation which concentrates on patient outcomes. We have always looked to technology to help us help our radiologists to work in an efficient environment with applications that are easy to use. Working with

Augnito is key to a wider strategic decision, today and long term, to put in place the absolute best technology that we can; with a solution that is seamless and intuitive to work with, enabling our radiologists to concentrate on their reporting and the impact on the patient and not be distracted by the technology."



"Augnito has really allowed us to deliver on a significant part of our business objectives. Hexarad was formed by radiologists for radiologists, centred on delivering excellence and efficiency in medical imaging and radiology resources, clinical governance, and customer service. Augnito enables us to do just that."

**Dr Jaymin Patel, BSc, MBBS, FRCR**  
**Chief Operating Officer, Hexarad**

#### ABOUT SCRIBETECH AND AUGNITO

Scribotech (UK) Ltd. is an approved supplier of transcription services and speech recognition solutions to the NHS and private healthcare sector, as well as the creator of Augnito: an innovative cloud-based, AI voice product suite. Augnito offers the fastest, easiest way to capture live clinical data on any device, making healthcare intelligence accessible everywhere.

#### ABOUT HEXARAD

Hexarad is a leading radiology platform based across the UK and Ireland. Its bespoke built-in workflow management software solution, Optirad, helps hospitals manage their own radiology resources better, improve productivity and efficiency allowing team leaders to deliver patient-centred service with timely and accurate scan reporting to streamline departments and existing resources. They also provide a full service teleradiology solution to ensure fast, accurate diagnosis for everyone.