

# What's next



## Healthcare

# Open System Imaging empowers next-generation radiology reporting with PowerScribe One

An outdated speech recognition plugin and unoptimized reporting processes meant that Open System Imaging's team of radiologists were spending hours dictating and correcting their reports before they could share their insights and interpretations with referring physicians. Northern California medical director Patrick D. Browning, MD, MA, MSL, suggested the team move to PowerScribe One, the next generation in cloud-based solutions for medical imaging reporting. Open System Imaging recently deployed PowerScribe One for the whole team, and its radiologists are now benefitting from advanced language understanding, AI-driven workflows, and a streamlined reading environment.

**Dr. Sheela Agarwal**

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Open System Imaging (OSI) is a network of radiologists that operates across five facilities in California. The outpatient practice provides a wide range of medical imaging, from ultrasound and X-rays to high-end CT and MRI scans. For many years, OSI was using a speech recognition plugin for reporting that integrated with its PACS system. But the workflow and recognition were not state-of-the-art. The radiologists themselves were spending hours reviewing and editing their own reports.

OSI recently made the [transition to PowerScribe One](#), Nuance's next-generation platform for radiology reporting. It combines cloud-based speech recognition with streamlined reporting workflows and AI-powered quality tools to help radiologists generate reports more quickly and accurately.

We recently chatted with radiologist Patrick D. Browning, MD, MA, MSL, and northern California medical director for OSI, and David Bachman, OSI's chief technology officer, about how the team is benefitting from PowerScribe One—and what the future might hold for medical imaging.

**Dr. Agarwal: Let's start by learning a little about Open System Imaging. Could you tell**

## **us about your team?**

**Dr. Browning:** We're a relatively small team; our radiologists are based across California, but we all read studies from every facility. We mix and match and share cases based on our expertise, so we needed a system that allowed us to have one cohesive approach to producing reports.

## **Dr. Agarwal: Tell us about your reading environment. What solutions were you using?**

**Dr. Browning:** It was very antiquated. We were using a speech recognition tool that was built into our PACS solution—and we were dictating directly into the system. However, it was basic and not very accurate. Our team was spending a lot of time editing reports and correcting errors, which meant less time spent analyzing studies.

We weren't using the tool in the best way, either. I spoke to our PACS provider, and it turned out that the embedded speech recognition tool was only meant to be used with a correctionist—someone who would read a report and ensure it's accurate. We didn't have editing staff, so we were always at a disadvantage there.

**David Bachman:** The old speech recognition system also struggled with the radiology-specific and custom medical terminology the team uses, which meant they needed to make a lot of corrections as they worked. That led to backlogs, as they often have as many as 150 studies to report on in a day.

## **Dr. Agarwal: What brought you to PowerScribe One?**

**Dr. Browning:** In one of my prior roles before working with OSI, I deployed the PowerScribe 360 Reporting platform across a very large healthcare organization in northern California. I found that in that environment, the radiologists' efficiency improved significantly.

I knew Nuance had continued to develop its speech recognition software and moved it to the cloud which, among other things, meant our radiologists didn't have to do any voice recognition training. It was the ideal solution for our remote team.

## **Dr. Agarwal: How was the implementation process? What kind of support did you have?**

**David Bachman:** I've been in this business for over 30 years, and I've rolled out many software platforms in that time. The team that Nuance assembled for me was the absolute best

team I've ever worked with, bar none. The implementation was so well organized—even with the complexity of integration with our multiple, disparate RIS and PACS systems—my project manager from Nuance really took ownership and got everyone involved.

We started preparing the team three or four months before we flipped the switch. I had multiple calls during the week with Nuance people who were helping me learn the administrative side of things and teaching me how to create auto-text and templates for our team to use. Each of our radiologists had individual training with a Nuance specialist too, to help get them up to speed.

I've got to keep my group working, so we needed to avoid downtime during the switchover. And on the day we went live, there were no problems at all—the solution just *works*.

**Dr. Agarwal: How have your radiologists been getting on? What's the feedback like?**

**David Bachman:** My doctors are absolutely in love with PowerScribe One. Recently, one of them read 30 X-rays in an hour, which would have been impossible with our previous solution.

In my line of work, no news is good news. Often, we only hear from the radiologists or referring physicians when there's a problem with a system. But since we deployed PowerScribe One, we've had no complaints at all—we couldn't have asked for a better transition.

**Dr. Browning:** We're still relatively early in our deployment, so I expect we'll have more efficiency metrics in the future, but I also think there are many more facets to improvement than just speed of dictation or report creation.

I think we'll be able to create more consistent reports and get better insight into the recommendations we're making to our colleagues. I expect we'll get useful feedback from referring physicians about adjustments we can make to templates so they're more informative—and in PowerScribe One, making those changes will be easy.

**Dr. Agarwal: What's the most useful part of PowerScribe One?**

**Dr. Browning:** I'm a real believer in using templates and macros. Taking a modular approach and using automated workflows helps me dictate cases and finalize reports far faster—I'd estimate I'm working 30% faster with PowerScribe One, and my error rate has decreased significantly.

The workflow integrates seamlessly with all our systems. PowerScribe One prompts me when I use phrases such as “breast cancer” or “pulmonary nodules,” so I can automatically add in portions of clinical guidelines to give referring physicians a more complete report.

**Dr. Agarwal: We developed PowerScribe One as part of our vision for the future of radiology. What do you think the next few decades will look like in medical imaging?**

**Dr. Browning:** Tools like PowerScribe One—which are evolving all the time—are going to be key to our success. I see AI becoming very important; I truly believe it’s the next big revolution in imaging.

With AI integrated into our workflows, we can explore automated detection, measurement, and quantification. We’ll be able to turn reports around much more rapidly, with more detail and accuracy. There are a lot of patients who need help there, and with AI we can deliver better care more efficiently. It’s going to make radiology reporting into an even more valuable resource for physicians.

**Dr. Agarwal: Thank you so much for talking to us about your journey, Dr. Browning and David.** It’s great to hear that OSI’s radiologists are already seeing workflow improvements using the new cloud-powered platform.

**Tags:** [Medical Imaging](#), [PowerScribe One](#), [radiology reporting](#), [Speech Recognition](#)

## More Information



### Learn more about PowerScribe One

OSI is just one of the teams that’s implementing PowerScribe One to help its radiologists embrace next-generation radiology reporting. Explore the future of medical imaging workflows with cloud-based speech recognition.

[Learn more](#)



## About Dr. Sheela Agarwal

Dr Sheela Agarwal joins Nuance from Bayer Healthcare Radiology, where she held the position of Digital Medical Advisor, acting as medical lead for the Digital Solutions Business. Prior to that, Dr. Agarwal held other leadership roles at Bayer including Head of the Digital Solutions Business and Head of Medical Affairs for region Americas. She is an experienced leader with a history of working in academics and industry, has written multiple AI-related publications through her work with the American College of Radiology DSI and was recently involved in establishing “AI Central,” the FDA-Cleared Algorithm Catalog. Dr. Agarwal completed her undergraduate and graduate degrees in Economics, as well as her MD from Duke University, her graduate radiology training subspecializing in abdominal radiology and MRI from Massachusetts General Hospital/Harvard Medical School and her MBA from the University of Chicago Booth School of Business. She continues to practice as an abdominal radiologist at Lenox Hill Radiology in New York City

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