On the path to digitization

Outstanding service and same-day reporting - powered by **Speech**Magic™

Customer story

The Belgian AZ Sint-Jozef hospital is situated in Turnhout and serves the north of the Antwerp province. In recent years, this medium-sized hospital has seen a tremendous growth in the number of patients. While just 36,000 patients came to the hospital in 1985, that number rose to more than 130,000 in 2005. To handle the increasing administration workload more efficiently, the hospital's Radiology department decided to take a leap forward on the path to digitization. They first installed a Radiology Information System (RIS) as well as a Picture Archiving and Communication System (PACS). Several months ago, the Philips speech recognition platform SpeechMagic was integrated into their RIS system and has since decreased the administrative staff's workload while dramatically shortening the turnaround time of medical reports.

Going digital step-by-step, the hospital introduced SpeechMagic in their radiology department just a few months after the whole department had become a filmless environment. The speech technology has been integrated with Agfa HealthCare's radiology information system, IMPAX RIS and has also been installed in the Anatomopathology department.

"We implemented SpeechMagic because we wanted to have all reports finished and validated within the same day," explains Dr. Hans Cuykx, head of AZ Sint-Jozef's Radiology department. "With this short time lapse between examination and the transfer of a medical report, we ultimately aim to provide referring physicians with outstanding, high-quality service. Of course our in-house clinicians also benefit from having reports on the same day."

Guaranteed integration

After they had tested two speech recognition systems, Sint-Jozef decided to work with the Philips platform SpeechMagic. "We wanted to avoid having to talk to two separate suppliers", says Dr. Cuykx. "Radiologists should study images, not IT systems. Philips and Agfa guaranteed us that their systems would work together." On top of the promise of a seamless integration, the radiologist was also impressed with the high user friendliness of the Philips speech recognition system. "The integration of speech in our IT infrastructure works well and our radiologists have not had to change the way they work," continues Dr. Cuykx.

The department has six radiologists using the system and the radiologists dictate their reports using a SpeechMike. Before the implementation of digital dictation and SpeechMagic, the physicians would first produce a preliminary, handwritten report right on the spot. Once the ultrasound or CT images were developed, the radiologists would dictate their full reports on tape. "Dictation used to mean doing double work," comments Dr. Cuykx. The transcriptionists would type out the full report. In total, there was often a time lapse of up to 48 hours until a full, written report was completed.

High priority

The AZ Sint-Jozef hospital uses frontend speech recognition with deferred correction in order to free radiologists of administrative tasks. Once they have finished dictating, the audio file of the dictation is sent to a transcriptionist together with the recognized text. Once they have dictated a report, radiologists can set a priority - from the low priority level 1 to the highest priority level 5, demanding immediate attention for a specific report. On their screen, the medical secretary can automatically select the most urgent reports in order to complete them first.

"We can work much faster than before and the system is much more convenient than the dictation tapes we used to type from. At the end of each day, we can deliver a full report for all examinations," comments Mia Beliën, Medical Secretary in the Radiology department. As only few minor corrections have to be made, urgent reports are

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"We used to get many phone calls regarding our reports. Since we have installed speech recognition, clinicians don't call us any more to find out about their reports."

Mia Beliën, Medical Secretary

"With SpeechMagic, all our reports are finished on the day of the examination. Now we can provide referring physicians with excellent service."

Dr. Hans Cuykx, Head of Radiology

Did you know?

The AZ Sint-Jozef hospital has digitized its image and information flow with a RIS/PACS/speech solution including SpeechMagic and can now deliver fully validated reports for every examination within the same working day.

Agfa has successful implementations in more than 100 sites around the world combining the strength of RIS/PACS and Philips SpeechMagic.

sometimes done within just a few minutes and other reports will usually be finished within one or two hours. Most reports can be validated only 25 minutes after the examination. The Radiology department has even established a new policy to have all reports of the day finished when the doors close at 6pm – and has managed to stick to that rule since the introduction of SpeechMagic.

Manageable workloads

The department's secretaries and radiologists used to get many phone calls from referring physicians and in-house clinicians enquiring about medical reports. As all validated reports are available almost instantly the number of phone calls has now dropped sharply. The six radiologists can use the time saved for other value-added activities and the time saved is also beneficial for the patients. "Images, patient histories and often even approved reports will reach the doctor before the patients do," says Dr. Hans Cuykx. Further treatment will no longer be hindered by the long turnaround time of a medical report.
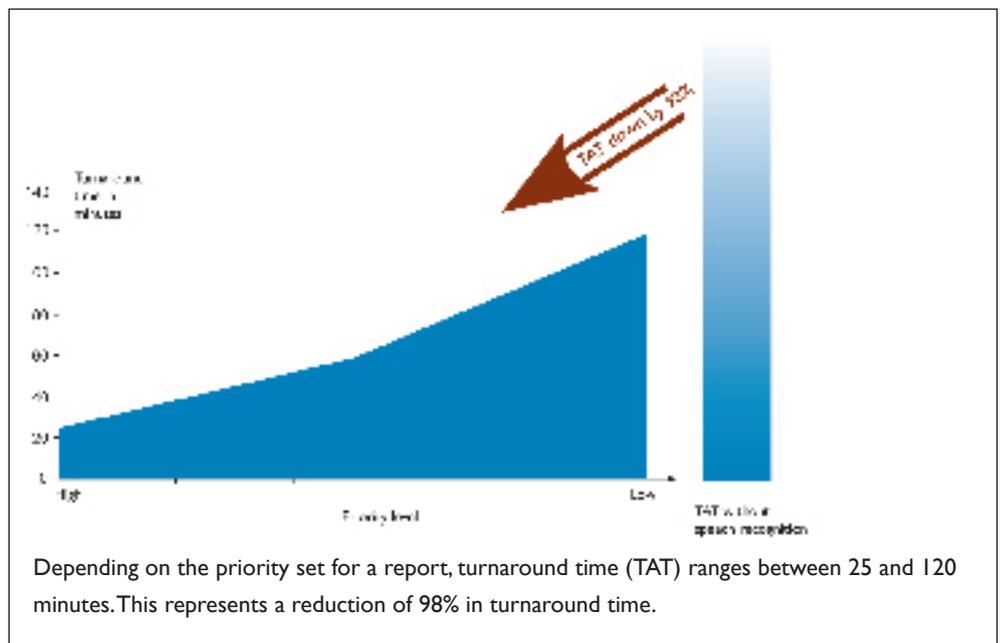
The decrease in administrative duties has also resulted in cost savings due to less administrative personnel needed in the department. Whereas the radiology department used to employ two secretaries,

they now have only one secretary handling all reports. "The workload used to be enormous. My job is much more relaxed now," says Mia Beliën. If there is a peak period of reports or if she is not available due to holidays or illness, a secretary from another hospital department can easily help out.

Electronic future

"Now that we have clearly raised efficiency in our department, we would never want to work without SpeechMagic," comments Dr. Cuykx. AZ St.-Jozef is now even exploring the potential extension of the system to other clinical departments.

As other hospitals in the area haven't been digitized yet, the hospital offers a higher quality of service for referring physicians due to its adoption of healthcare informatics systems and the integration of SpeechMagic. Today, referring physicians can choose to receive the reports of that day on paper or by email. Starting in early 2007, they will also be able to log on securely to the hospital's web server, in order to download the images and reports they have requested. The hospital is also planning to implement an electronic patient record (EPR) in the near future. Once the EPR is available, all medical information will be transferred electronically to the hospital's referring physicians.

Depending on the priority set for a report, turnaround time (TAT) ranges between 25 and 120 minutes. This represents a reduction of 98% in turnaround time.

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