**NUANCE** | **WHAT'S NEXT BLOG**

Documentation capture, Healthcare AI

# AI-powered speech recognition is improving clinical documentation

Dr. Simon Wallace | Chief Clinical Information Officer (CCIO), Nuance Healthcare UK and Ireland

31 July 2019



Speech to text is the foundation for innovative AI-powered tools that could help not only to reduce the burden of clinical documentation on clinicians but also improve it so that the data-rich output can be used to support decision-making and coding

## The productive workflow

In my last blog, I highlighted the importance of speech to text to support clinicians recording data in an electronic format in the EPR. I also described the role that AI could play in meeting the aspirations of the NHS Long Term Plan.

The considerable progress that has been made in AI is due to a combination of increased computing power combined with the huge quantities of data being generated. Without the collection, storage and availability of all this data, these major developments in AI would not have been possible.

# AI and speech recognition

There are two ways that AI driven speech recognition is making a difference. First, AI uses acoustic (sound) and language learning programs (algorithms) to interpret voice. Secondly, AI supports the mathematical backbone to speech recognition.

It is the sophistication of this backbone that determines the accuracy and quality of speech recognition and the subsequent ability to automate some of the clinical and administrative tasks that burden clinicians today.

# How AI is making a difference in documentation

The key workflow task that AI-driven speech recognition has addressed today centres around the documentation process; admission notes, ward round notes, procedure notes, discharge summaries, outpatient letters etc. The simple fact is that we speak three times faster than we type.  However, the speed, ease and freedom of movement that speech recognition provides is only the beginning of AI's impact on clinical documentation.

Through computer-assisted clinical documentation AI has the potential to bring knowledge automation to the point of care. By searching clinical terms in all documents through the patient care pathway, AI supports the clinician by providing advice and guidance within the workflow and detects possible missing diagnoses that have not previously been recorded or considered, prompting the clinician to amend the notes.

# The next step – coding

If clinical coding can be an automated as a bi-product of this AI powered speech journey then it will also help clinicians meet the requirement for SNOMED CT coding by April 2020.

AI powered speech recognition then not only improves the quality of the clinical documentation, but will have an impact on coding and appropriate reimbursement.

**Tags:** Digitisation of the NHS

### About Dr. Simon Wallace

Dr. Simon Wallace is the Chief Clinical Information Officer (CCIO) of Nuance's Healthcare division in the UK and Ireland. Simon has worked as a GP, hospital and public health doctor in Brighton and London. His interest in health informatics began in the 90s when he spent a year at the King's Fund investigating the impact of the internet on shared decision making between patients and their healthcare professional. For the past 15 years, he has worked for a range of organisations including Bupa, Dr Foster, Cerner Corporation and GSK across a range of technologies which include electronic patient records, telemedicine, mobile health and lifestyle devices. Simon has a keen interest in the voluntary sector, recently completing a 7 year term as a Trustee for Fitzrovia Youth in Action, a children and young people's charity based in London.

View all posts by Dr. Simon Wallace