Of Dragons and other beasties:

By Laetitia Sullivan

Hands up, who doesn't want to give their aching hands, arms and shoulders a break while trying to make that impossible translation deadline? Enter Automatic Speech Recognition tools to the rescue.

But first, what is Automatic Speech Recognition?

Automatic Speech Recognition (ASR) "aims to take spoken language as input and transcribe it into text form verbatim"[1]. Essentially, this means dictating your translation into your computer-aided translation (CAT) tool of choice without touching the keyboard. But is it really that simple? Especially for under-resourced languages, which applies to most of South Africa's official languages, at least from a global perspective? In this article, I'll discuss some of the available ASR solutions and if they are suitable for the South African situation.

Dragon Professional Individual v15 (formerly Dragon NaturallySpeaking)

Currently, this is considered the best specialised ASR tool because it works in an integrated and highly accurate way with some of the most popular CAT tools. But, with a hefty price tag of $500 and a very limited set of supported languages (Dutch, English, French, German, Italian, Spanish), translators working in South Africa's indigenous languages won't get much joy from the software. Another disadvantage is that the software isn't fully supported in Windows 11, although Microsoft announced their bid early last year to acquire Nuance, the owners of

Dragon, in a multi-billion dollar deal. [2] We'll have to wait and see if there will be any further developments regarding supported languages, considering that some Microsoft products are already available in Afrikaans, isiXhosa, isiZulu, Sesotho sa Leboa and Setswana.

Windows 11 Voice Typing

Voice Typing in Windows 11, previously known as Dictation in Windows 10, lets you enter text on your PC by speaking. Although the function comes free with your Windows PC, you first need to set up the service in Settings, and it's advised to take the time to use the function 'Train your computer to understand you better' to do exactly that. The function is then activated by pressing the Windows logo key + H on the keyboard. The supported languages have seen much improvement with 36 languages (plus variants) now included. But eish, not a single indigenous South African language to be found, though.

Hey memoQ

Another popular ASR tool, this time for Apple fans, is Hey memoQ, the dictation app that works with the popular CAT tool, memoQ. The app is available from the Apple App Store as a free download for memoQ users. Unfortunately, this app is limited to iOS devices as it relies exclusively on Apple's voice recognition technology, which turns your iPhone or iPad into a conduit for dictating your translation in 32 languages (plus variants). Again, none of the indigenous languages of South Africa made this list, but I suppose we can take comfort from the fact that at least our special variant of English was included.

[1] https://ddd.uab.cat/pub/tradumatica/tradumatica_a2014n12/tradumatica_a2014n12p524.pdf

[2] https://www.cnbc.com/2021/04/12/microsoft-buys-nuance-communications-in-16-billion-deal.html

MateCat

The only other commercially available CAT tool that recently implemented ASR functionality is MateCat, the free open-source online CAT tool. The functionality uses the Google Speech-to-Text API to deliver dictation and theoretically should support the same languages (more than 70, including Afrikaans and isiZulu), but it's only the first iteration of the ASR integration and software bugs can be expected. In the CAT tool itself, MateCat offers support for Afrikaans, isiNdebele, isiXhosa, isiZulu, Sesotho, Setswana and Xitsonga.

[3]https://kevinhendzel.com/professional-quality-translation-at-light-speed-why-voice-recognition-may-well-be-the-most-disruptive-translation-technology-youve-never-heard-of/

[4]https://repozitorij.ffos.hr/islandora/object/ffos:4933/datastream/PDF/download

The rest

Other ASR tools worth investigating:

• Voice notebook (a free online dictation tool, which supports Afrikaans and also offers paid integration with your CAT tool at $16 per year)

• Dictation.io and LilySpeech (free online dictation tools based on Google's speech recognition technology, which supports Afrikaans and isiZulu)

• Google Docs (free online word-processing software where you can use the voice typing function under Tools for dictation in Afrikaans and isiZulu)

Pros and cons

Many translators, mainly working into English, who have been using ASR technology for years claim that it doubles their productivity - and therefore their income - because, of course, we speak faster than we type. The technology also has great health benefits as it unchains the translator from their desk and therefore can prevent repetitive strain injuries from overuse of a mouse or keyboard. Improved translation quality is another reported advantage because "speaking the translation out loud blocks source-language interference and inelegant constructions"[3].

However, "the biggest problem [with ASR tools] is its inaccuracy of word recognition" [4]. Local dialects and accents are huge stumbling blocks for speech recognition, and the inability to distinguish between homophones ('right' and 'write' or 'there' and 'their') can make the use of the technology very frustrating for the user. Separating voice commands (to indicate punctuation, for example) from the words that actually need to be recognised can also cause trouble. Finally, highly technical content (such as medical terms) can present a huge challenge for the technology.

Last words

With so much technological advancement in the world of translation, ASR tools can still be considered the stepchild of translation automation. Personally, I don't think the financial benefit is enough to encourage developers working in the translation technology space to throw time, effort and money at the problem, especially when we consider the South African language market.

At least, for Afrikaans, research led by Dr Febe de Wet from the CSIR, together with VivA, Saigen and Stellenbosch University, has commenced developing a specialised dictation tool for Afrikaans, similar to Dragon[5]. This translator, for one, is looking forward to giving it a test drive as soon as it's ready!

Pro tip: if you want to keep up with the latest developments regarding ASR tools, consider joining the Facebook group, Translators who use Speech Recognition.

About the author

Laetitia Sullivan is an award-winning, SATI-accredited sworn translator and Accredited Text Editor (PEG) with Afrikaans and English as working languages. Her specialisations include software localisation, legal and official documents, as well as non-fiction publishing. She is also the Afrikaans translator of the best-selling title by former ATA president, Corinne McKay, Finding and Marketing to Translation Agencies: A Practical Guide for Freelance Translators (available on Laetitia's website) Her personal nightmares include a world without dogs, running out of good coffee, and losing her sense of humour.

[5] https://viva-afrikaans.org/lees-luister/blog/item/1198-n-afrikaanse-dikteerstelsel-die-ontwikkeling-van-afrikaanse-taaltegnologie