

Choosing the Right Microphone for Your Speech Recognition Solution

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Introduction

I've been somewhat fanatic about microphone testing for over 12 years now, intent on always using the best currently available.

Why?

A quality microphone truly can make all the difference with speech recognition accuracy. Yes, there are other factors such as:

- how you articulate,
- how effectively you set up Dragon's options and
- how you use the accuracy functions within the software (some are effective and some are downright disruptive, in fact).

However, one of the integral aspects to effective speech recognition is using a **quality** microphone. In addition to quality, it must be **easy** to use. Too many buttons or a cumbersome setup can lead to unsatisfactory results. Comfort should also be a consideration, which segues into another important factor...

Your Workflow

The microphone or input **must** adapt to your workflow. I've always maintained that technology adoption is most effective when the technology can adapt to the user rather than the other way around. While Dragon is not a simple program to learn (although well worth the time and effort spent in learning), its use should integrate with **how** we work, and the microphone is an essential component to this.

Doctors & Lawyers

Generally speaking, doctors and lawyers use computer technology and speech recognition differently.

Doctors tend to use computers primarily for charting (whether it's into an Electronic Medical Record application or a text editor such as MS Word), writing lengthy reports such as medical legals and possibly for writing correspondence, usually via email. Unless the medical practitioner enjoys computers as a hobby, they tend to not sit in front of one any longer than they have to. Moreover, it was not that long ago that doctors never needed to touch a computer. Only with the recent demands of EMR use have they found themselves in front of a computer.

Lawyers spend more and more time in front of the computer, entering billing, numerous email communications, and of course creating contracts, briefs, and numerous legal documents. Secretaries seldom transcribe and send a lawyer's email via an audio recording any longer. Lawyers are driven to be more independent in their text creation, and like doctors, don't want to type.

Speech Recognition is the Way

I, personally, type over 100 words per minute, but it is much faster for me to use voice than to hand type. I discovered this quite painfully years ago when I came down with laryngitis and had to type my email. What a laborious process! But I digress.

If you spend any time on the computer and need to create text as well as perform repetitious tasks, then speech recognition will do more than assist you — it will change the way you work... for the better. But it can only do this with a truly effective solution and the right microphone input is one of the keys.

So let's discuss all the options:

Microphone vs Digital Voice Recorder

Microphones are useful if you are in front of the computer. Hands down, this is the most effective way to convert voice into text. The advantage is that you can dictate in front of your PC, watch in real time as your voice is converted to text and immediately make any edits necessary. This greatly diminishes the former continuous editing-proofreading cycle between dictator and typist.

Digital voice recorders are useful if you are out of the office, away from a computer. It's your only reasonable choice. Digital audio files can be sent via email, FTP or downloaded once back in the office. Dragon can automatically transcribe the audio files, producing text documents or another party can guide Dragon through the transcription. Proofreading is a must in both scenarios and can be performed by an assistant.

Bottom line: a quality microphone and digital voice recorder should yield the same recognition accuracy provided that dictation into a digital voice recorder is being performed in a reasonable environment (dictating while jogging is likely not conducive to accurate results). Which one you choose depends on where you spend the majority of your time, and yes, you can use both types of devices.

Microphone Headset vs Handheld

While it's understandable that many do not like to strap a device to their head, the truth is that a microphone headset will settle into position and remain there unless jarred out of position. Consistent and proper microphone placement is also essential, and a headset is easier than a handheld to maintain this positioning.

However, a headset can be inconvenient to the physician who needs to perform only short bursts of dictation between patients. Moreover, some dictators have been accustomed to holding a handheld device for years, so they will adapt to a microphone handheld very quickly and effectively. Handhelds can also provide you with easy-access buttons to perform computer functions especially as they relate to speech recognition (these functions can also be performed by voice or keyboard for headset users).

Legal practitioners, on the other hand, welcome being hands free while dictating so that they can physically review notes and resources with their hands while they dictate. This makes quoting from other sources a breeze.

Bottom line: if you need to be hands free, use a headset. If you perform shorter bursts of dictation or do not need to be hands free and enjoy a handheld, then use a handheld.

Wired vs Wireless

There has been much to-do about Bluetooth and wireless over the past few years. I have been tirelessly testing wireless microphones all this time and have been grossly disappointed. Wireless is not all created equal, and most of what is on the market uses a technology that suffers from drop-outs rather than continuous transference of speech. Dragon only does what it is told so if it does not hear complete words or phrases, accuracy will be severely hampered.

Quality wireless solutions will cost about twice the price of a wired solution. The benefits, however, for some, are enormous. For the physician who needs to be mobile in the exam room or the lawyer who spreads case files and materials across several desks, wireless is essential. DECT and Bluetooth® Class 1, version 1.2 coupled with a quality microphone element and means to process and transfer your voice are key.

Bottom line: if you need wireless, and do not mind paying twice the price of a wired microphone, then one of few currently available quality wireless microphones will be essential. If you do not need wireless, then a quality wired microphone will be more than adequate for your needs.

Telephony — the other consideration

If you spend about as much time on the telephone as you do on the computer, consider a phone-PC switch and capable microphone solution. You will be more productive and comfortable if you can dictate to the PC and speak on the telephone with the same microphone.

In Closing

The choice of microphones is a personal one and it should adapt to your needs. If you have specific questions or would like guidance in choosing your perfect microphone, or if you would like to order one, [contact myself](#), Alexandria, at 604-264-9109 ext. 102.