

Evaluation of Dragon's Naturally Speaking Software

Kathy Weise

Lesley University

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Abstract

Voice recognition software has become a viable and affordable solution as an alternative to using a keyboard as an input device to personal computers. I initially evaluated the software for use by office and administrative staff with limited keyboarding abilities and found that it was easy to install and configure and it worked well with our standard office software. I also spoke with a user who had extensive experience with voice recognition software and other speech assistive technologies because he has severe dyslexia. His survey and other special educator's feedback reinforces my findings that this selection of voice recognition software has a wide variety of uses and is very effective as an input device to today's desktop computers.

Evaluation of Dragon's Naturally Speaking Software

I chose to evaluate Dragon's Naturally Speaking software as a request from our district superintendent for technology. He had a request from one of our office staff, an administrator, who had such limited keyboarding skills that he felt it impaired his ability to use the computer to the best of his ability. This administrator, Jerry, often hand-wrote text and had an administrative assistant type it up. Then Jerry would use his computer to edit the initial draft until it was complete. He thought the use of voice recognition software could speed up the process and free up the time requirements of the administrative assistant.

We purchased an initial copy of Dragon Naturally Speaking Preferred for \$180. We also purchased an additional "Hands Free Headset" (part #33-3012) microphone from Radio Shack for \$30. Jerry and I worked together one day to install and configure the software on his office desktop computer. The entire process took us about 1.5 hours and the software was usable after that.

The installation process was well organized. There was an "Installation and Training" card included in the package that we used. We disabled the virus and anti-spyware software as recommended and proceeded with the installation from CD. Part of the installation process is to connect to the internet and register the product to that

computer – this restricts the use of the software to a single computer and enforces copyright. This could be restrictive for people with multiple computers, such as a laptop in addition to a desktop or a home computer, unless they could afford to purchase multiple copies. Multiple users can be configured on a single copy however.

Once the software was loaded, it started and opened a set of windows with instructions. We initially used the microphone that came with the software and this was the one place where we had difficulty. Several times we tried and it continued to present an error that the level of the microphone was too high, no matter what we did with the microphone placement or computer settings. We then tried the Radio Shack microphone and it immediately worked fine.

Part of the installation process is to program the software to recognize the user's voice and syntax. The way the program does this process is to present several windows of text that the user reads. I found this to be a very interesting process because the text presented was a tutorial about the features, capabilities and uses of the software. We all have good intentions of further reading the documentation or taking training classes or tutorials, but often times we never quite find the time to pursue these intentions. Presenting this material as part of the installation process worked very well and we both learned more about the software and its capabilities.

Once the installation was complete, we rebooted the computer to ensure that all the software was still working correctly, including the virus and anti-spyware software that we had previously disabled. Then Jerry tried using his word-processor, MS-Word, and his e-mail client, FirstClass, and both worked very well with general text. The e-mail message text would only work in the text part of the message – the subject and To: sections did not accept spoken text. There was a slight delay in the program's timing of presenting words to the screen which initially threw Jerry off – he would pause and wait for the text to appear before continuing to speak. As time went on, the program worked a bit faster and Jerry got more used to the slight delay so it wasn't a problem at all. He tried speaking punctuation, which worked well and he made simple corrections. The basics of the program were easy to learn and Jerry was satisfied at this point with its performance.

In addition to the Installation and Training guide, there was a Quick Reference Card and a User Guide Documentation book. All are excellent resources. A large portion of the documentation book describes all the correction features that the software is capable of. Jerry did not plan to learn or use these features - he basically wants it as a way to initially input large amounts of text that he can later use the keyboard to edit. The documentation book was quite good with a suitable organization and index. We both agreed that a comprehensive

understanding of all the abilities of the software would require quite a lot of learning, but would be possible and useful to those who need or desire those capabilities.

Jerry's final question concerned using the software to capture spoken text that he could record while he is driving. He has a long commute to and from work and thinks he would like to record text that he could process when he returned to the office. We researched this capability in the documentation and they provide explicit instructions on doing this so Jerry hopes to purchase a recorder this summer and proceed with this. Dragon recommends creating a new "user" (i.e. 'Jerry Recorded' instead of 'Jerry') and training the software from the recorded files since the process of recording can make a voice sound quite different, depending on the recorder. Nuance provides a hardware compatibility chart that rates various recorders interoperability with the software (<http://support.nuance.com/compatibility/default.asp>).

I followed up with Jerry after two weeks to survey his experience with the software. He had used it effectively several times and found it was easy to use and worked very well. He was pleased with it and thought it was a worthwhile purchase and product to have. He reiterated his desire to use a portable recorder in the car. His

administrative assistant is also pleased to have fewer demands of typing handwritten texts.

I then contacted somebody who I found out had quite a lot of experience with voice recognition software, along with speech-assistive software, to assist him in using a computer because he has severe dyslexia. Chuck has used voice recognition software for about 10 years, and found that the current version of Dragon Naturally Speaking was very good. He had used a variety of programs over the years and appreciated how much better they work now than when they first came out. His opinion is that the Microsoft software that comes with Windows as part of its accessibility is about as good as Dragon was six years ago.

One of the biggest difficulties he had with the software was getting it to program to his voice properly. Since he has trouble reading the online text, because of his disability, it took him a long time to get the program properly set up for his voice and speaking syntax. (For more information on this aspect, see "Training Voice Recognition Software" on Landmark College website.) I thought this was particularly interesting feedback, because I thought it was such a nice setup for our initial user. It shows how important it is to evaluate software with the specific types of users you intend to use it with. Chuck did finally get it configured and says that the program

'memorizes' your mistakes and gets constantly better at recognizing your voice and syntax so the more you use it, the better it works.

Chuck also uses several other speech-related assistive technology computer programs such as Jaws (a screen reader), Open Book (a book reader), and MaGic (a screen enlarger). He has worked with a consultant, CompuCare, Inc., to purchase and learn to use these assistive technologies. Dragon Speaking Naturally assists him tremendously with his writing, as it is programmable to common mistakes, so as time goes on, it gets better at working with that person's disabilities and style.

In conclusion, I found that this voice recognition software, Dragon Naturally Speaking, was definitely a good choice in software selection and was a good value. It is easy to install and use for basic functions. It has extensive capabilities that take longer to learn but are available for those users that require or desire them. I would highly recommend the product.

Resources:

Nuance Dragon Naturally Speaking
<http://www.nuance.com/naturallyspeaking/>

CompuCare, Inc. Computer Sales, Service & Support - Voice
Recognition & Phone Systems <http://www.abilities.com/>

Training Voice Recognition Software. Landmark College
http://www.landmark.edu/institute/assistive_technology/vr_training.html
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