



### Multiple Disabilities–Creative Solutions by Ricky Buchanan

When it comes to computer access, having a disability that affects both my ability to type and my vision is somewhat of a problem. The usual solutions for vision impairments use lots of different keyboard commands, while the usual solutions for not being able to type—or type much—involve on-screen keyboards and/or word prediction which both require vision. AssistiveWare’s VisioVoice is the answer to this problem, as it lets me make the most of my vision so I can access KeyStrokes, their on-screen keyboard, and in turn, my computer.

The first thing I find VisioVoice invaluable for is seeing the mouse pointer, as I use the mouse for nearly everything. Although Mac OS X has a built-in preference to enlarge the mouse pointer, I find this makes it difficult to use the mouse accurately, especially when editing text with the I-beam cursor. VisioVoice’s cursor preferences lets me put a bright red target circle around the mouse pointer, enlarging it just enough to be seen clearly and located easily.

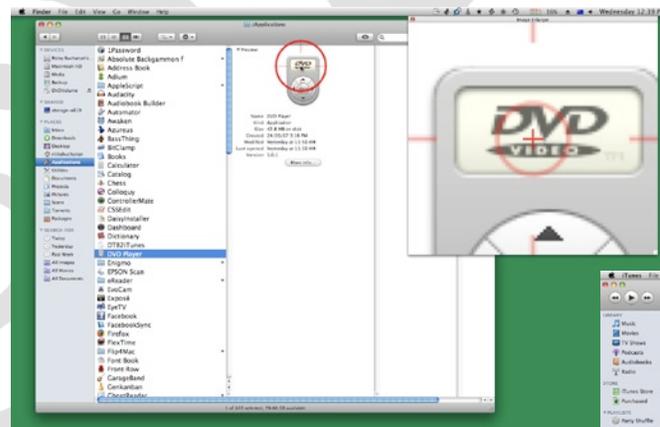
I read a lot of PDFs, MS Word files, and other electronic texts that often contain technical information, but I find it very hard to concentrate on machine-read documents, even with the great sounding Infovox iVox British English voice, “Peter.” When I have something to read, I open it in VisioVoice’s Document Reader by just dropping the document on the VisioVoice dock icon. This

allows me to read some sections, switch to audio when my eyes get tired, and then switch back to reading if there’s a section of programming or math formulae or something else that doesn’t work well audibly. Being able to switch between reading and listening so easily without losing my place in a document means I can get far more done before needing to stop and rest.

Sometimes I can touch-type with an ergonomic keyboard, but most often I use a touchpad with

one hand and an X-keys Desktop keypad from P.I. Engineering ([www.piengineering.com](http://www.piengineering.com)) with the other. It’s an odd combination, but it is the most effective combination for my particular disabilities at the moment. When I am using the touchpad and X-keys device, I use KeyStrokes on-screen keyboard with word prediction to type. Although enlarging the on-screen keyboard and remembering the key order aids my typing, I have trouble distinguishing

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**(Left)** VisioVoice’s Image Enlarger, which zooms the area around the cursor, allows me to see fine details in graphics and pictures and can be turned on and off as needed using hot keys.

**(Right)** Here I am playing around in iTunes with KeyStrokes on-screen keyboard and VisioVoice’s Text Enlarger, which displays accessible text that is below the cursor in large crisp type.





## Users in Control: A Fresh Perspective on Accessibility

visually similar words in the prediction pane. This is remedied by setting VisioVoice to speak each letter or word as it's typed, giving me audio confirmation of whether I selected the word that I wanted.

For images that I want to see in detail, I use VisioVoice's Image Enlarger. Mac OS X offers screen magnification, but it only enlarges the whole screen, which I find disorienting and after a while nauseating to look at. Having a defined enlargement region with VisioVoice works much better for my purposes, especially when I can turn it on by using hot keys just when I need it.

When I am having my worst times visually, even menu items and dialogue boxes are a problem—I can see where they are, but not what they say. When things are like this, I turn on VisioVoice's Talking Interface and let it speak what is under the mouse pointer. A few programs that I use don't work with this feature, but virtually all the programs that I use most—Mail, Safari, Finder, iTunes, and Address Book—work fine, except for iCal, which works enough that I can still use it, though it's frustrating.

Since I use Talking Interface as needed, having global hot keys to switch it on and off is very helpful.

This strange and shifting combination of technologies matches my strange and shifting combination of disabilities. Nevertheless, I think I'm doing well at getting the most out of my abilities—in 2007 I started ATMac ([www.atmac.org](http://www.atmac.org)), an assistive technology blog for Mac OS X users, content producers, educators, and developers. Growing from a simple idea, it now has up to 800 readers a week. In

addition to this undertaking, I continue to study computer-aided music composition, work on my website, Not Done Living! ([www.notdoneliving.net](http://www.notdoneliving.net)), write in my personal blog, Journeying/Journalling, and stay in touch with friends and family through the computer. Finally, I have begun an archiving project, scanning our family's old photos for posterity. Without my Mac and the assistive technology to access it, I wouldn't be able to do any of these things ... and I don't even want to think what that would be like. ☐

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This PDF and audio podcast is created by Mac users with physical, speech, or vision impairments. Featuring their experiences, it seeks to inform, inspire, and provide a platform for new ideas. Once a year, some of the articles appear in a PDF of the AssistiveWare Newsletter, found at [www.assistiveware.com/newsletter.php](http://www.assistiveware.com/newsletter.php). A video podcast titled "Exploring the Frontiers of Assistive Technology" that features some of the contributors is also available.

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