

Why pay for a Screen Reader? Why is JAWS still the best option for blind students?

Abstract

In January 2014, Microsoft and GW-Micro, the manufacturer of the screenreader WindowEyes, announced that WindowEyes would be given free to blind customers who bought or upgraded to MS Office 2010 or above. This sparked a surge of interest in the blindness community, but it was not long lived. Why wouldn't people immediately abandon JAWS, a paid-for screen reader from the leading assistive technology manufacturer, Freedom Scientific? What features in JAWS make it still the leading product, despite competition from freebie screen readers such as WindowEyes and NVDA? And why isn't the free Voiceover screenreader that is built into the MAC O/S (iPads, iPhones etc) taking over the world? What is more important today, the price of a product or its features and functionality? What really works in the highly complex and varied environments of education and employment? Quantum has been the Master Distributor for JAWS and other Freedom Scientific products for over a decade, and in this presentation, Peter Cracknell (Manager, Quantum QLD) will outline the general case for a paid-for screen reader, review the Microsoft landscape, look at what happened in 2014 and what may happen in the year ahead – and Danny Keogh (Manager, Quantum Software Support, who is himself blind, and a JAWS user) will review the strengths of JAWS against other screen-readers, and why people are still prepared to pay for sophistication, support and stability.

1. Welcome all, my name is Peter Cracknell, and I am the Queensland Sales Manager for Quantum Reading Learning Vision or Quantum RLV. My co-presenter is Danny Keogh, Quantum's Software Support Manager, based here in Melbourne. Also with us manning our exhibitor stand is a fellow many of you will know, Trevor Boyd, our Manager for Victoria, Tasmania and South Australia.
2. Quantum RLV is a commercial supplier of Assistive Technology, Training, Consultancy and Support, the largest such supplier in Australia, best known in Education I suppose for our Mountbatten Braille, and also for the computer software we sell, namely JAWS, Openbook, Duxbury, WYNN, MAGic and Zoomtext.
3. I think it is worth stating the obvious up front, which is that Quantum RLV is a private commercial retailer – a fully Australian owned and Australian run company, employing 20 plus staff, with no government funding, and no charitable status, though we sometimes consider ourselves a not-for-profit, especially in the current economic climate.
4. We prosper by selling stuff – JAWS, Duxbury, Braille displays, CCTVs - in a competitive environment, to educated, tech-savvy discriminating people.

Which means we source the very best, the most reliable, products in the world, and we have to work hard to convince our customers to buy our gear. Why is our equipment so expensive? At the end of the day it is highly sophisticated specialised technology, made in low volumes. That is the main driver of cost.

5. So, we sell solutions rather than products, and we have to continue to prove ourselves with great after sales support and associated services. This is why people still prefer to buy from Quantum rather than order a box online and hope for the best.
6. So, as a retail company, there is a lot of Darwinian pressure on us to be the best we can be. It's not easy, but at the end of the day we believe that the free marketplace is a better incubator of innovation and truly useful products than one-size-fits-all stuff deposited on us by a Central Committee (I was going to mention the "The National Curriculum" but we might just leave that be for the moment).
7. In May 2014, Quantum Managing Director Tim Connell presented a paper to Round Table entitled "What is the cost of a free product?" addressing the need to look at value before cost, and beyond that to look at the cost to society of choking out valuable tools, and valuable innovators, by attacking the specialist providers like Freedom Scientific – who make the JAWS screen reader – and by association, Quantum who sell and support it.
8. Tim used the analogy of the elite athlete. The professional cyclist, or wheelchair basketball player will buy the very best gear they can afford that will maximise their performance. They could just go down to K-Mart and buy a \$100 bike. That would be fine for pottering around the suburbs, but it just hasn't got the competition performance they require. That performance can only be delivered by specialist manufacturers backed by expensive R&D and using high cost materials. By analogy, vision impaired children need the best tools for their education, tools that fit them and are sophisticated enough to outwit the complex accessibility barriers thrown up around them, barriers that will also challenge them in the unforgiving world of work, where there are no teacher aides or helicopter parents.
9. The challenge for the Assistive Technology industry – small specialist manufacturers like Freedom Scientific, and small specialist retailers like Quantum – is the current disconnect between Reality – the world of work - by which I mean PDFs, Microsoft Office and Windows – and this weird Virtual Reality, which is the common illusion that accessibility can be provided free, that one size really does fits all, that Linux really will topple the evil empire, that the Apple iPad is more than a personal product, that "there's an app for that" – and even better, it will be a free app, or \$1.69 if you upgrade to the no-ad version.
10. So, let's just review the real technology landscape in 2014
 - a. Contrary to popular belief, Microsoft is still the dominant player

- i. Approximately 90% of desktop computers around the world use a Windows operating system (compared to Apple 's iOS operating system of around 7.5%).
 - ii. Microsoft Office (Word, Excel etc) still has a market dominance of approximately 85%. And yet, in the last 20 years, OpenOffice, a completely free alternative to MS Office has only been able to attract a 3% market share
- b. At the start of 2014, GW Micro who make WindowEyes (a competitor to JAWS) merged with Aisquared (who make Zoomtext) and came to an arrangement with Microsoft to provide free WindowEyes licenses to blind consumers who already had MS Office 10
 - i. WindowEyes has been competing with JAWS for some years in the open market, but in recent years has not had more than about 10% market share. The merger with Aisquared was a lucky move for a manufacturer under pressure.
 - ii. After the initial announcement in January 2014, there was a flurry of enquiries, but within 2 months, web traffic to the GWMicro site had declined back to the same level it was in 2013. Anecdotally, I have heard that many people downloaded WindowEyes but it didn't run properly, and they ignored it pretty quickly and carried on with either JAWS or NVDA.
 - iii. if Microsoft were to properly incorporate Window-Eyes code into its own operating system (as Apple did with Voiceover) this would be a move towards the concept of Universal Design. At this stage there is no evidence of this happening and it is more likely that Microsoft are offering WindowEyes to show a degree of compliance with Accessibility legislation.
 - iv. Interestingly, Quantum's JAWS sales actually increased 9% in the 2013/14 Financial Year mainly in the workplace and education sectors, where it is still easily the market leader
 - v. We have installed school system State Wide JAWS licenses in four States – Tasmania, Victoria, South Australia, and Queensland, and these have proven very successful. It is now so much easier to manage the deployment of JAWS in schools than it was before. Schools can request a JAWS license from a central server and have it installed remotely within a day. The schools do not have to make an investment from their very stretched disability budget. No more lost software. And it's always up to date, latest version. And because it is centrally owned, there is economy of scale, and cheaper unit cost. The whole arrangement is more efficient to administer. And it's been tested to death by the IT staff on the SOE.

- vi. In fact, if there has been an impact from the WindowEyes / Microsoft initiative, it will most likely be felt not by JAWS, but by another screen reader, NVDA.
- c. NVDA – Non Visual Desktop Access
 - i. A few years ago, a couple of brilliant young Aussie geeks, Michael Curran and James Teh, developed a small and simple screen reader for Windows called NVDA, that not only works, but is also free. They came from a viewpoint that accessibility to the digital world is a basic right, and like the developers of the massively popular online encyclopedia Wikipedia, they demonstrated that really useful tools can be developed by dedicated consumers outside the retail model.
 - ii. NVDA, like Wikipedia, and like Mozilla Firefox, increasingly rely on Donations, because they are essentially anti-commercial. But the Donation Model is very insecure– I am sure you have seen the increasing frequency and font size of the Wikipedia and Firefox calls for donations every time you load them up.
 - iii. Nippon Organisation who are the major funder for NVAccess appointed a new Director to secure better funding streams, but their focus is on the social mission to Developing Countries
 - iv. NVDA was always designed as a basic accessibility tool and that's the beauty of it – and it is far superior to the awful Microsoft Narrator, which comes tacked-on to Windows. However, it is primarily an accessibility tool for home-use, and for everyday email, internet and word-processing applications.
 - v. However, In the world of work, with myriad complex business applications, you need a fully professional, well-staffed R&D and Design company, like Freedom just to keep up, and indeed to support your necessarily complex products all over the World.
 - vi. You also need a properly financed company that will be here next year, and the year after that. As Freedom has been, through revolutionary changes and challenges, since the 1990s.
- d. Voiceover
 - i. Voiceover is the screen reader built into the Apple iOs – on iPads, iPhones etc
 - ii. Its main advantage is that it is free, and it is integrated into the operating system. This is a huge step forward towards the goal of Universal Design. The accessibility issues are more to do with the fact that the Apps that run on iPads have no common design standards and a lot of the controls and indeed information is swipe based and highly visual.
 - iii. Many blind consumers have been converting to iOs because of this Universal Design, and the convenience and low cost of the iPad. Many Adaptive Tech Consultants in the blindness

agencies have been very actively promoting iOS as the Windows-killer. There is a lot of breathless evangelizing about how groovy the iPad is and all its cool apps – and I love them too ! BUT, when you ask the iPad prophets what they use at work, for word-processing and so on, they invariably say “Oh, I use WORD and JAWS”. So, the iOS is not actually subtracting JAWS sales. People still upgrade their JAWS licenses. They just also use iPads and iPhones, as we all do.

- iv. Voiceover is not a separate program but an integral part of the operating system, and this means that bugs and fixes only occur when the operating system is up-graded. For example, there was a significant bug in the way VoiceOver handled Braille translation that took nearly 3 years to fix.

v.

11. What will happen in the future

- a. PDFs will continue to dominate as the preferred document platform, and even if a website is highly accessible, it is estimated that over 50% of actual content is delivered from these sites in PDF format.
- b. Windows will still be the workplace platform. But which Windows? Windows 8 ! Windows 10 ! who would you trust to keep up with such a volatile environment?
 - i. It all comes down to whether we can trust the likes of Apple, Microsoft, Google and the new players that will arrive in the next decade? Over the long term, how important is the 1% of the population who are vision impaired to them? Or a sub-set of that, being the people who depend on Braille, or a sub-set of that again; people who are deafblind or have multiple disabilities?
 - ii. In corporations and government departments (the largest employer of vision impaired people), the IT departments will continue to favour robust mature and well supported products like JAWS that work with their complex networks and applications
 - iii. Teachers will continue to see the value in continuity from school to work
 - iv. Users will value the critical mass of user knowledge, in user forums, vision agencies, and Freedom's extensive Knowledge Base

12. Finally, I would like to point out a notable statistic. Blind and Vision impaired people are amongst the least employable people with disabilities, the statistics for employment are shockingly low. Of those who are employed, over 90% have technology skills and use screen readers, the large majority are JAWS users. Danny Keogh is our Software Support Manager, and an example of

what can be achieved by blind people in the world of work if they are given the right tools.

13. DANNY – discussion of :

- a. PDF reader capability in JAWS (including image only PDF)
- b. Skim Reading feature in JAWS – on the fly generation of TOC and text navigation
- c. Text Analyzer feature in JAWS – layout and formatting, appearance of document, un-necessary spaces etc.

14. Danny finishes by emphasising how he would not be able to do the job he does without the JAWS tools he uses everyday.