Accessibility in the Modern Workplace

Darren Burton, Director AFB TECH

Key Points

1. The Lexmark multi-function document center was found to be most accessible for users who are blind and visually impaired.
2. The Accessaphone was found to be a good option (in desk phones) for accessibility for a Voice over Internet Phone (VoIP) interface.

Research Summary

A poll was conducted to find out which pieces of office equipment posed the most accessibility barriers in the workplace. Computers and software were not included, as it is already known that many barriers exist and they are specific to certain occupations. Efforts were made to make sure that the devices chosen for testing were generic to most office settings. The two devices identified were the telephone, using a Voice over Internet Phone (VoIP) interface, and the multi-function document center. Modern office telephones have a visual display and use soft keys which are not easily accessed by the visually impaired or blind user. The multi-function document centers have a touch screen interface. This interface is difficult or totally inaccessible to the user with vision loss.

Four multi-function document centers that claim to have accessibility features were tested: Lexmark, Canon, Ricoh, and Xerox. Of these, Lexmark and Canon had the most accessible interfaces. Lexmark was most successful, as their interface is web based and can be accessed via a regular computer. This allows access with screen readers, braille displays, and portable devices like smart phones and accessible electronic note takers that have internet access. In addition, the touch screen interface is larger than most, text can be enlarged, and colors reversed for low vision access. Canon's "Voice Guidance Kit" features can be accessed through the tactile keypad using the numeric keypad as arrows to move through options on the screen. In addition, one can use their voice to activate features, but this is more time consuming. Minimal contrast change is available for low vision users. Ricoh "Access Module" offers software for accessibility, but the company does not support the software which is produced by a subsidiary in Europe. Once the software is installed it worked with JAWS and NVDA, but not Window Eyes. It has built in large text, and will also work with ZoomText. Xerox "Copier Assistant" worked only on older Windows operating systems, those that are no longer supported by Microsoft.

Clicker Question: Canon's Voice Guidance Kit Costs $1,800. Would $1,800 be a reasonable cost to provide an accessible interface?
Yes (51%)
No (49%)

Seven VoIP systems are being tested: (PC) Accessaphone, VT Go-508, (iOS) Linphone, 3CX, (Android) Linphone, Zoiper, and (OSX) Telephone. The Accessaphone and VT GO-508 were found to be fully accessible. The cost to make the Accessaphone accessible was $1,500 per seat. The iOS products were mostly accessible, and the Linphone is open source, so the lab at AFB is working to make it more accessible. The Android products were less accessible, but this may be due to lack of accessibility on the Android platform. The final product, Telephone, is fully accessible but only allows for making and receiving calls, with no extra functions.

> *Clicker Question:* The Accessaphone costs $1,500 per seat for accessibility. Would $1,500 be a reasonable cost to provide an accessible phone?
> Yes (46%)
> No (54%)

Panel Discussion
> *Panelists:*
> *Kathy West-Evans, CSAVR*
> *Juanita Barker, TexasDARS*
> *Bobby Druesedow, Texas DARS*
> *Brian Charlson, Carroll Center for the Blind*

What would employer reactions be to the costs related to providing accessible equipment?

> I'm totally blind so I'm not reading faces, but you can still feel it in the room when that blank face goes up there. I don't want to commit one way or the other as to who is going to pay the bill or something. My experience at least to this point has been that employers would love to hear VR say, 'Don't worry about that, we will handle that.' Just be there and look like you understood from the get go that this is going to be an expense that is part of the cost of hiring any employee. I very quickly roll out the job retention question. The Department of Labor statistics support the idea that if you hire a person with disability, they're going to stay with you longer and it is going to be a more effective expense for you long term, if you provide this accessibility short term.

> I would say that it depends on the size of the employer, because you have to remember that a large portion of this country is employed by small employers. So, if VR has to step forward with a smaller employer, I think that's different than a larger employer. I think the big questions that they ask us are, help us understand what we need. We don't know how to do the assessment, to buy the right technology, and then get us to a credible provider or a credible vendor. We know with one bank, they've got in touch with a local building company that saw them coming and they will get to charge them $250,000 to put in an automatic door opener. We connected them with another vendor, so they are asking us to help with credibility.

When first meeting with business, a lot of times, we make a ballpark cost, but when we're first building that relationship, we try not to get into the cost. We try to get into the pluses. My fall back is it just ain't cheap to be blind. Folks understand that, and we haven't had a lot of argument one way or the other. It gets done and the person goes to work.

How would you expect employers to react to the costs discussed?

I think from what I saw from what Darren showed, a lot of this stuff is not just benefiting folks with disabilities. It can benefit everybody. So, when approaching an employer, or approaching a business with information about the cost, which is at the beginning of the relationship, but after they're already in love with me, it's like how can it benefit everybody within the company, not just the person who's blind or visually impaired? I think that, that reaction-- that's where my reaction would come in, and that's where I would start getting the reaction from a business.

Well, I think that again, a large part of that is going to be dependent on if it's a large company or a small company. In Texas, we are part of a large umbrella agency that has 55,000 employees. So, we have the same multi-function document centers across all of the agencies within our umbrella. It's the Xerox centers which are not very accessible. So, we have even dealt with our own agency on that. I don't think it's that so much, so often that it's always the cost as it is just finding out what is the most accessible. It's not always the cost. It's finding out what's best for the majority of the people who need accessibility.

When you age, you lose your vision, so the reality is keep everyone working.

I do think that this whole issue of, you can't know what to do unless somebody informs you of what's possible. In my agency, I twice made the mistake of being out talking at some conference like this, only to come back and find out the copier died and they bought a new one, and I wasn't there. In both cases it's inaccessible, and that's the blindness agency. So, it happens to everybody. I think the people who are doing the buying even more. So, the other thing is that sometimes you don't need all the accessibility day one on the job, you can build up to it over time. When the copier gets replaced, then you talk. Make it an accessible copier. When the voice system gets upgraded, then you talk about some of that. You see what you can do to get along in the short term, and worry about those issues in the long term.

What other office hardware or software needs to be made accessible?

Anything and everything that's web based. So much of business is dependent on having access to websites that are accessible. I have to say, it's not just a matter of accessible, it's a matter of usable. You saw Darren up here doing all the clicking and clacking in order to get something done, and you had to say to yourself, 'Boy, how much faster would a sighted person be in doing the same thing?' When you try to demonstrate something, it

goes. Nonetheless, it takes a half a dozen clicks to say yes sometimes. So, to me, I guess one is the web, and the other is to make sure that people realize it's not just accessible things, it's also knowledge on how you use them. So much goes into buying the thing that is supposed to be the answer, and then the training is just an afterthought.

I would say, companies are going to online recruitment and application processes, and it's not going company by company, it's going to the producers of the software that these companies are buying. So, how can we get together and educate the software providers? I would also say that anything that has to do with point of sale, whether it's a cash register or-- you can see that we have, these are very specific applications. The other one is called routing functions. If you have anything to do with a customer service center, looking at those, those are real life examples of businesses that have been saying, where do I find the solutions?

I was thinking of specific examples of the software, and I think the web conferencing is something that we really need to work on, get information on to make it more accessible.

<u>From the Audience</u>

Comment: I believe that the web based products that companies will use for different things, like ADP for time sheets for instance, is a huge company, bad on accessibility. I think that all the different other programs that they try to sell you for performance appraisals or employee input, those kinds of things, getting some understanding that there are people in those businesses who need the accessibility functions, and working with the software developers for those products, so that they are more accessible and you can fill out your own time sheet without major hassles, and that sort of thing.