

Spring 2008

Diversity Boston

in the workplace, in the community, and in our lives



Boston Is What It Eats

Ethnic chefs personify
city's diverse culture

What's In A Name? | Breaking Language Barriers | Empowering the Vision Impaired



Students, at left, work on computers during a summer training program at the Carroll Center. The Carroll Center for the Blind recently launched Carroll Tech, an expansion of its Computer Training Services program. Carroll Tech offers online classes in the use of computer applications with a screen reader.

New Technologies Empower the Vision Impaired

High-tech solutions help blind "see" their way in the business world

As technophiles go, Alex Gray is on the cutting edge. With an array of high-tech gizmos at his fingertips, Gray can match his clothing using a portable color detector, weigh himself on his talking scale, and check the time on his talking wristwatch. His cell phone talks. So does his GPS system, his digital book reader, and his computer, which can convert text into speech.

But Gray isn't really a futuristic techno-geek. He is blind.

"I'm certainly lucky," the 24-year-old Quincy man says of the technology that helped him land a job as a liaison for the Massachusetts Housing and Shelter Alliance in Boston. "The more skills I develop and the more technology I use, the more valuable I am as a person" and as an employee.

At a time when 70 percent of all legally blind, working-age individuals are unemployed, new

technologies are improving the lives and the job opportunities for the vision impaired. "I couldn't have looked for a job if it weren't for this technology," says Jim Denham, the assistive technology coordinator for Perkins School for the Blind in Watertown.

Like many blind job seekers, Denham uses a screen reader to browse the internet, send emails, and read documents. An optical scanner allows him to convert text documents into speech, and a handheld GPS-equipped computer lets him read text messages, check his calendar, find his location, and take notes in Braille. "It's really empowering," he says of the devices. "If you're going to compete in a sighted world, you need technology to level the playing field."

Gayle Yarnall thinks so too. "Between your technology and your attitude, there's not much you can't do," says Yarnall, the blind president and

founder of Adaptive Technology Consulting in Amesbury, which provides consulting, support, and training to the vision impaired and learning disabled.

While all that technology may seem cutting edge, the future promises even bigger breakthroughs for blind job seekers. This January, Nokia unveiled a cell phone that turns the text on photographed documents into speech. The device allows users to read any photographed document, including menus, newspapers, and money.

Ray Kurzweil, who developed both the first software to convert text to speech in the 1970s and the software used in the Nokia phone, predicts a future in which artificial vision systems installed in eyeglasses will allow blind individuals to actually "see" objects. "We're working on software that will recognize objects, logos, and faces," says Kurzweil, noting that the technology may soon

also be used to map the interior of homes, offices, and other buildings.

Farther ahead on the horizon, Kurzweil says, are driverless cars that will turn sightless commuters into vehicle owners.

Yet even with all those advances in technology, blind job seekers still face some difficult challenges. Screen readers, which once let users easily scan the internet for jobs, cannot read the distorted codes needed to gain access to some websites, says Brian Charlson, vice president of computer training services for the Carroll Center for the Blind in Newton. Web animation, mislabeled photos, and offbeat web designs confound the screen readers even more.

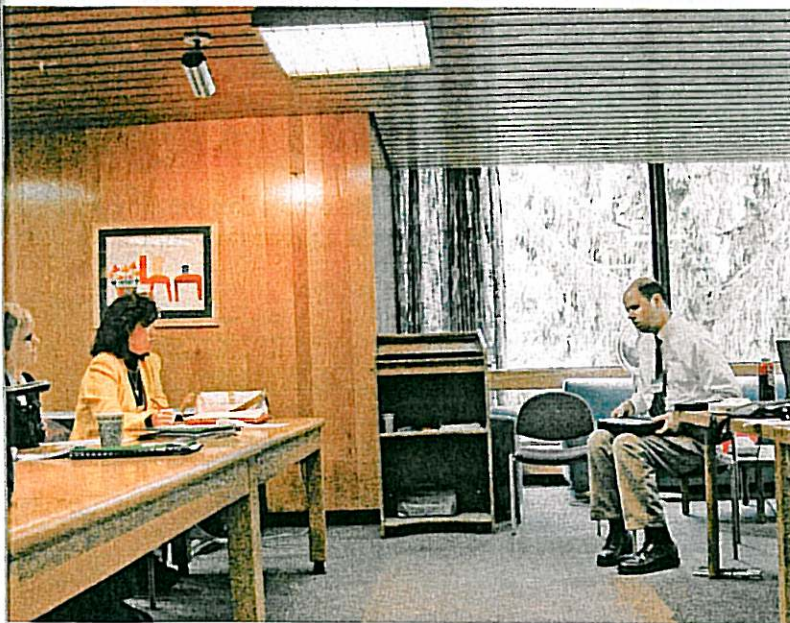
The biggest challenge, however, may be in persuading employers that blind job seekers are as skilled as their sighted counterparts, he says. "There's a quiet discrimination," notes Charlson, who also is blind. The issue is getting employers to understand

that with proper technology, there are few jobs blind applicants can't handle.

"Employers may wonder how you can use a computer if you can't read the screen. They may worry about the paperwork you need to read or how you will take notes," says Paul Schroeder, vice president of programs and policy for the American Federation for the Blind. That's why it's crucial to educate employers about screen readers, optical scanners, and handheld note-taking devices.

Gray doesn't wait for employers to ask how he will handle a task. He is eager to explain the technology and quick to highlight his skills.

"I'm of the mindset that anything is possible when you are blind if you are willing to work at it and realize that you are a capable person," he says. "You have to be able to see yourself as a person, rather than as a blind person."



Jim Denham of the Carroll Center for the Blind shares his thoughts during a meeting.

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