High-Tech Tools Have Tremendous Benefits for Disabled Workers, Employers

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- Kenneth Davis

Technological advances have made the workplace much more accessible for people with disabilities. More and more companies are striving to make their work environment as disabled-friendly as possible through the use of high-tech tools, which could open up a slew of new employment opportunities for individuals with disabilities.

“Assistive technology has forever changed the employment possibilities for people with disabilities,” writes Hannah Weiss of **Workology**. “Many new gadgets and applications make employment possible for people with disabilities, when it wasn’t conceivable before.” Weiss added that “portable devices such as cell phones, laptops and tablets have greatly increased accessibility for people with disabilities in the workplace. With those devices, people with disabilities can utilize many different applications.”

And new developments in robotics and artificial intelligence have the potential to further improve the work environment for people with disabilities, according to employment and labor attorney Natalie A. Pierce, a partner with international law practice Littler Mendelson and co-chair of the firm’s Robotics, Artificial Intelligence and Automation practice group.

“Robotics are becoming more flexible, more agile, more easily adaptable and reprogrammable and especially when we look at what’s happening in terms of vision-guided robot systems,” Pierce told **WorkersCompensation.com**. “We’re so far past the time when we had to keep robots behind the cage and away from humans, and now we have much more interfacing between humans and machine. What that means for individuals with disabilities is that it’s becoming more and more about the brain as opposed to the body.”

Pierce said that with the assistance of robotics, it’s no longer necessary to have people doing the repetitive tasks of “pulling of the levers” or “assembling intricate parts;” and this frees up workers to focus on things like quality control or the actual programming of a cobot, or collaborative robot.

“Technology with voice-recognition capabilities combined with artificial intelligence and Siri-type of assistance, Alexa and other chatbots are able to take the commands and instructions of a worker to help carry out some of their job duties,” she added. These tools are not only of great benefit to disabled employees but to all workers in general, said Pierce.

Additional Robotic Tools

Pierce discussed other robotic tools—such as cobots and exoskeletons—that could also be of benefit to workers with disabilities.

“Exoskeletons are becoming more commonly used, and it was mainly outside of the U.S. that we were seeing pretty good adoption of exosuits and exoskeletons,” she said. “But now we are seeing it in Canada and the U.S. and in things like auto assembly.” Exoskeletons have motorized muscles that multiply the wearer’s strength, enabling a worker to lift up to 200 pounds without strain or risk of injury, according to Pierce.

“If someone is injured on the job or disabled in some way, they can you use things like exosuits and exoskeletons to enable them to perform the work,” Pierce said. “And some companies are making tremendous advancements in this area, and now we even see robotics that are helping people who are paralyzed do things like feed themselves.”

Cobots are designed to interact with people in the workplace. They work alongside the employees and assist them in performing tasks that pose a risk to safety; require great precision; are time-consuming; or can only be done by scarce, highly skilled

workers, per **Novarc Technologies**. And cobots usually create a much safer work environment as well as significantly increasing productivity and production capacity, according to Norvarc.

“Robotics continue to enhance human workers capabilities, and opens up many more avenues for individuals with disabilities in a number of industries,” said Pierce.

Additionally, there are a variety of other applications currently available to make the workplace more accommodating for people with disabilities, such as Microsoft’s Seeing AI app, which describes people, text and objects aloud for people with low vision, writes Catherine O’Flynn and Darran Brennan in an article for **SiliconRepublic**. They added that “InelliGaze is a tool that allows people with mobility impairments to operate their computer using eye control” and “Windows Hello enables users to access devices with fingerprint, iris scan or facial recognition rather than passwords, giving people with learning and physical disabilities greater ease of access while remaining secure.”

And Microsoft recently launched the 'AI for Accessibility' program, which addresses employment of people with disabilities and asks how technology can positively impact the employment rate for people with disabilities, Brennan told WorkersCompensation.com via email interview. “This program provides grants of technology to developers and investors using AI to create solutions that will assist people with disabilities with work and projects that improve employment opportunities for people with disabilities,” said Brennan, an employment and benefits solicitor at the international law practice William Fry. O’Flynn is a partner with William Fry and head of the firm’s Employment & Benefits department.

With regard to workers’ compensation issues involving employees with disabilities, Pierce said the same workers compensation laws that apply to nondisabled employees would apply to disabled employees, whether or not they were using assistive tools at the time of the injury.