

Reasonable Accommodations and Assistive Technology in the Work Place



ELIMINATING BARRIERS FOR EMPLOYMENT

As an employer, your company plays a key role in eliminating barriers to work for people with disabilities.



A job accommodation is the act of modifying a job, job site, or way in which a job is done so that a person can have equal access to all aspects of work.

Instituting reasonable accommodations is an essential part of creating a work environment suited to the needs of your employees with disabilities.



When the American Disabilities Act became law, many employers expressed concerns about the potential costs of accommodations, specifically for employees with disabilities. The fact is that accommodations often cost very little, or nothing at all, yet some businesses still may be reluctant to recruit qualified candidates.



DEFINITION

The [Americans with Disabilities Act](#) defines reasonable accommodation as “any change in the work environment or the way things are usually done that gives an individual with a disability an equal employment opportunity.”



Workers with disabilities strive to be as productive as their peers and want to accomplish tasks with greater ease and independence. By making the appropriate modifications or adjustments, such as reasonable accommodations, employers can help facilitate their workers' abilities to perform essential job functions.



Reasonable accommodations may also be applied to the hiring process, such as the accessibility of an online job application or interview location



People with Disabilities Want to Work:

- Finding and keeping qualified workers in this economy is often the most challenging part of running a business. Yet, employers often overlook a large segment of our qualified workforce. . . people with disabilities. A Lou Harris¹ survey, found that:
 - 98% believe that everyone, including people with disabilities, should have an equal opportunity to participate in American society;
 - 90% said society benefits from having people with disabilities become more productive rather than dependent upon public financial assistance;



People with Disabilities Want to Work: Con't

- 82% see putting people with disabilities to work as a good thing rather than a threat.
- Based on the 1998 First Report of the Presidential Task Force on Employment of People with Disabilities, seven out of ten unemployed people with disabilities would prefer to work. Illinois estimates that more than 342,000 unemployed working age citizens with disabilities want to work.
- People with disabilities are as capable and dependable as those without them. Yet, they continue to be passed by. Why?
- One main reason is the myth that hiring a person who has disabilities means costly accommodations.² It's fundamentally untrue. Most accommodations are easy to implement and cost very little.



Assistive Technology in the Workplace

What is Assistive Technology?

It's anything that helps someone do something. All technology is assistive. It can be something designed for everyone, like a grocery cart; specifically designed for a segment of the population, like a plumber's adjustable wrench; or, uniquely designed for a specific person, like prescription eye glasses. However, the term is most often used to describe devices that help people with disabilities be more independent at work, school, home and any other place they happen to find themselves



It can be as low tech as Velcro or as high tech as a computer system that speaks for a person who is not easily understood. That broad definition can be frustrating for people who are new to the field, or don't encounter people with disabilities often in their work or social life.



1 Hopkins, K.R. (1991). Willing to act. [Summary of Louis Harris and Associates survey findings on public attitudes toward people with disabilities].

2 In this document, accommodate means to provide parity, equality on the job. Employees with disabilities can do the same job as non-disabled colleagues, with the right tools. Those tools level the playing field and create a sameness of quantity or degree.

3 Education Kit, 2000. President's Committee on Employment of People with Disabilities

<http://www.iltech.org/workplacetechnologies.pdf>

How Do I Make a Job Accessible?

Step

Action

- 1 Define the access issue.
- 2 Is it possible to modify the job? If so, do that.
- 3 Is it possible to modify the existing facility? If the answer is yes, do that.
- 4 Does a product or service exist that would solve the access issue? If there is, purchase it.
- 5 Can you use or combine available products?
- 6 Is it possible to modify the product? Yes? Modify the product.
- 7 Is it possible to design a new product? Yes? Design it.
- 8 Are there alternative placement possibilities? Yes? Implement alternative placement.
- 9 Redefine the situation.
- 10 Maintain accommodations.

4 From President's Committee on Employment of People With Disabilities pamphlet, Job Accommodations Come in Groups of One. <http://www50.pcepd.gov/pcepd/pubs/fact/groupof1.htm>

How Can I Know What's Right?

The simple answer is, if it works. Suppose you hire an employee who uses a wheelchair. You know that your building is physically accessible with entrance doors, interior doors, bathrooms, parking lots and elevators meeting all the current codes. Everything seems to be right. However, on your new employee's first day, you learn she cannot get her wheelchair far enough under the desk to use it. There seem to be two obstructions:

The desk is too low. The wheelchair's footrests bang on the privacy panel in the front of the desk that prevents her from getting as far under the desk as she needs to be. There are several options available to you. You can:



How Can I Know What's Right?

Con't

1. Raise the desk with bricks or blocks on each corner, and cut a half-moon in the front modesty panel to accommodate the wheelchair's footrests.
2. Use a height adjustable table that has telescoping legs that can be set at one height.
3. Use an adjustable desk without a modesty panel. A user can raise and lower the desk using a hand crank.
4. Use a new electric adjustable desk without a modesty panel. The user pushes a button to raise and lower the desk.
5. Use accessible files and portable drawers to add needed storage space.

Is one solution better than any of the others? That's a decision you and the employee must make. You may also want to have someone come in and assess the work environment and make suggestions about how to make it work for your new employee.

Exploring all the Options

- When you are trying to solve this kind of technology problem, always consider the least intrusive, most cost-effective solution first. If that won't work, move up to something a little higher tech. As the steps above indicate, look for a no-tech type of solution first, before considering a device. No single solution works in all situations, even if the accommodation is for people with the same disability.
- In our example, explore "A" first. If that doesn't work, then maybe "B" might. If that doesn't work, try "C" and so on. Ask your new employee to explore the strengths and weaknesses of each option. Together you can find the best option to use.



Focus on the Task

- Don't get bogged down by a disability. Focus on what a person needs to do and then search for tools that will help her do it. For example, you might think that a person that cannot move her arms could not operate a computer.
- In fact, there are many low tech ways that someone with that particular disability can operate a computer. Often, all the person needs is a head stick and key guard. But if that doesn't work, there are still low cost ways to make a computer accessible to someone with upper body disabilities. Unfortunately, there's a long history of trying to fix the person rather than this newer way of looking at the environment and tasks. If you need help getting out of that old way of thinking, you may need an outside evaluator to help you.



Talk to Some Experts

- The first person to ask about what might work best is the person with the disability.
- She has had to figure out, often cleverly, ways to live in a world that doesn't fit her. If the two of you cannot solve the puzzle, invite another person to help. Pick someone who is "good with her hands." Perhaps a carpenter, a farmer, or an engineer. Pick someone that works in a completely different environment than you. They problem solve differently, and will add new insights.
- Once you've exhausted your idea pool... you'll need to call in a professional in the technology field to help. IATP/TechConnect maintains a list of people in Illinois who conduct assistive technology evaluations. Call, or visit our web site.

Universal Design

- Universal design is both a vision and a concrete attempt to plan and make all buildings, environments and products usable for everyone. . . children and older adults, people of different sizes and abilities, disabled and nondisabled. There are seven guiding principles in universal design:
 - Equitable use
 - Flexibility in use
 - Simple and intuitive use
 - Perceptible information
 - Tolerance for error
 - Low physical effort
 - Size and space for approach and use
- Consider ramps. Governmental agencies, businesses and other organizations installed ramps to create access for people with disabilities. However, it's proven to be a tremendous asset for parents with strollers, the copy machine salesman who has to lug a machine in and out of offices and nearly every delivery man and woman on earth.



The Americans with Disability Act (ADA)

- The ADA prohibits discrimination on the basis of disability in employment, state and local government, public places, commercial facilities, transportation, and telecommunications.
- Title I of the ADA requires employers (with 15 or more employees) to give qualified people with disabilities equal access to the full range of employment-related opportunities.
- For example, it bans discrimination in recruitment, hiring, promotions, training, pay, social activities, and other privileges of employment. It also requires employers to make reasonable accommodations to the known limitations of otherwise qualified individuals with disabilities, unless it results in undue hardship.

Listed of agencies that can help you understand and comply with the ADA.

- CNMI Assistive Technology Program
(670) 664-7003
- Northern Marianas Protection and Advocacy System Inc.
(670) 235-7273
- Centers for Independent Living (CIL) a center that provides peer relationships to people with disabilities by people with disabilities.
(670) 322-4303

- Disability & Business Technical Assistance Center UIC/Disability and Human Development 1640 West Roosevelt Road (M/C 626) Chicago, Illinois 60608 800-949-4232 v/tty, 312-413-1407 v/tty, 312-413-1856 fax
www.gldbtac.org gldbtac@uic.edu
- Centers for Independent Living (CILs) CILs are centers that provide peer relationships to people with disabilities by people with disabilities. There are 24 centers in Illinois. For the name of the CIL nearest you, call the Illinois Network of Centers for Independent Living at 800-587-1227.
- Job Accommodation Network West Virginia University PO Box 6080 Morgantown, WV 26506-6080 800-526-7234 v/tty www.janweb.icdi.wvu.edu
- US Department of Justice, ADA Information Line 800-514-0301 v, 800-514-0383 tty

<http://www.iltech.org/workplacetechnologies.pdf>

Examples of Assistive Technology Devices in the Workplace

**Remember, The
devices you see here
are merely
examples...there may
be several options to
choose from.**

Vision:

Talking Calculator: This calculator not only displays the calculations, it also speaks as the operator presses the various buttons..



Magnifiers: Magnifiers come in all shapes, sizes and prices. They can magnify from 1 to 14x. They can be lighted, handheld, table top, mounted, worn around the neck, eyeglass shaped, etc.



ZOOMTEXT: This IBM compatible software program magnifies onscreen text to help people with visual disabilities use computers. It magnifies everything on the screen. This results in enlarged characters, icons and the cursor.



Large Print Stickers for Keyboard: In most cases you don't need to purchase a new keyboard for someone who has low-vision. These large print stickers fit over each key, making them easier to read.



Hearing:

Assistive Listening Devices:

Assistive listening devices (ALDs) are any non-hearing aid device designed to improve a hearing-impaired person's ability to communicate and to function. ALDs improve a person's ability to hear what is important and minimize amplification of background noise. ALDs can be used alone or in combination with hearing aids or cochlear implants.



Portable Phone Amplifier:

This gives a user access to pay phones, hotel phones, etc. Amplifies up to ten times normal volume. Adjustable volume control also enhances volume and clarity making voices easier to understand. Hearing aid compatible.



Open or Closed Captioning: Captioning lets people with hearing impairments see the text rather than hearing it. CLOSED captions are captions that are hidden in the video signal, invisible without a special decoder. OPEN captions are captions that have been decoded, and appear like subtitles in a movie. In other words, open captions cannot be turned off. Make sure all training videos and visual presentations have captions or print out a text version of the spoken words.



Manipulation and Fine Motor Skills:

Table Top Scissors: Push down table-top scissors have two "T" shaped pads and are operated either by depressing the handle with the scissor in a stable position or by "scooting" it across the table.



Key Turner: A large grasping surface on this key holder, makes it much easier to use.



Big Keys: The large keys and 'ABC' lay-out help users explore letters and words without confusion. The simplified keyset avoids ambiguity and deflects interference with the computer. This may be ideal for people with dyslexia and related learning difficulties. Also comes in QWERTY keyboard.



Door Knob Extension: A door knob extender can convert any round or ball door knob into a lever opener. It helps people with a poor grasp or an armload of materials pass through the doorway unassisted.



Mobility and Balance:

Pneumatic Height

Adjustable Chair: These stools let people sit at work places where they usually had to stand.



Hand Rails: Handrails provide support for all people in a workplace. Prices vary widely.



Adjustable Foot Rest: A foot rest can optimize body posture, balance and allows the user to move her legs and feet to improve circulation.



Ready-Made Ramps: Ramps come in all styles and lengths. ADA requires a 1:12 slope ratio. Prices vary depending on length and materials.



Memory, Cognitive and Mental Illness:

Photo Phone: This phone has 9 programmable photo-dial memory buttons. Simply put the picture of the person in a slot and program the number. All the user has to do is push the picture to call the person.



Make Task Notes:

Write down information or create a picture book rather than giving it verbally. Use Post-its, memo pads, email or any other visual medium.



Label Maker: Label items in order of use, where things belong, sequential steps or any other type of work task.



Giant Wall Calendar Clock: An orientation clock keeps the user abreast of the current time and day. It features a clock with display of month, day, date and AM/PM time. The big numbers and letters make it easy to see.



Organization, Planning and Learning Disabilities:

Color Coded: Index Cards Use color coded cards to keep tasks or jobs separated. It helps avoid confusion.



High Lighters: Color coded activities or assignments can be easier to track.



Intellikeys: This versatile keyboard can change its layout to suit any worker's need. It is very light and sits flat or at an angle. The surface can be operated with a finger, foot, head or mouth-stick. It has QWERTY or ABC layouts. Users can also create their own overlays to emphasize their own strengths. Useful for people with upper extremity disabilities or hand tremors.



Tape Recorder: Put resource materials and manuals on tape or CD. It makes them easier to reference for people who have difficulty reading instructions or directions.



Communication:

E-Mail: Email is a fast and easy way to communicate with someone who is hard to understand or doesn't understand complicated verbal responses.



Communication Book: A user simply points to a picture on a page to indicate her needs. The book can have specific sections for different communication needs (i.e.: on the job, during breaks, expressing emotions, etc.)



Communication Board: A simple communication board like this lets a user express both simple and very complex thoughts. They are usually covered with Plexiglas so they have a long life. Cost is minimal.



Voice Saver: Portable voice savers give a person's voice a little boost. Users can use it in meetings or a classroom, if their voices are soft or weak.



Q&A

RESOURCES:

- <http://www.iltech.org/workplacetechnologies.pdf>
- *From President's Committee on Employment of People With Disabilities pamphlet, Job Accommodations Come in Groups of One*
- <http://www50.pcepd.gov/pcepd/pubs/fact/groupof1.htm>
- <http://www.workwithoutlimits.org/employers/ra>

Assistive Technology Program

PROGRAM STAFF

AT Program Coordinator:
Raymond D. Diaz
rdiaz.cnmcdd@gmail.com
Tel: 670-664-7003

AT Project Director:
Pamela C. Sablan
psablan.cnmcdd@gmail.com
Tel: 670-664-7000

Location and Address:
Capitol Hill
Bldg:1310
P.O. Box 502565
Tel: 670-664-7003
Fax: 670-323-7006
TTY: 670-664-7006