

Assistive Technology

What is assistive technology?

The Assistive Technology Industry Association (ATIA), defines assistive technology as, “any item, piece of equipment, software program, or product system that is used to increase, maintain, or improve the functional capabilities of persons with disabilities.” Assistive technologies include eyeglasses, mobility devices, computer hardware and software, and even languages such as braille or sign language. In short: assistive technology is anything that helps people with disabilities better navigate the world. However, it can be argued that *any* technology is assistive technology. Roads and sidewalks are not considered assistive technology the way a wheelchair might be, but they are constructed to aid people in getting from place to place. In this sense, the very concept of assistive technology highlights the fact that ability and disability are often defined by circumstance and social expectation.

“Since all useful technology is assistive, it is peculiar that we stipulate that some devices are assistive while others need no qualification. Besides serving to stigmatize and segregate a benign and inanimate entity—a device or appliance—the term ‘assistive technology’ also needlessly complicates understanding of the devices so designated.”

Katherine Ott, from Artificial Parts, Practical Lives

Assistive technology past and present

Assistive technologies have existed for many thousands of years. The use of walking sticks, canes, and crutches is documented in stories, imagery, and archeological sites from all over the world. Varied prosthetics including those for limbs, toes, hair, and even teeth have been found both in archaeological sites and ancient art and literature. For as long as humans have been making tools, we have been making items to aid our bodies and minds in movement and function.

Modern assistive technologies include a host of mechanized and digital options, including motorized wheelchairs, screen readers, speech-to-text software, eye movement trackers, specialized keyboards or computer mice, and much more. Newer technologies also allow for innovation on existing assistive technologies, such as the ability to 3D print custom prosthetics.



This braille keyboard adaptor allows for the use of braille transcription with a computer setup. When a human being produces braille, that is called braille transcription. A computer producing braille is known as braille translation.

Photo by Kazuhito Kidachi, CC-BY.

Accessibility and Technology at the UW Libraries

The UW Libraries’ Accessibility Working Group is responsible for a variety of initiatives regarding accessibility and assistive technology, including the evaluation and documentation of Voluntary Product Accessibility Templates (VPATs) from our vendors. VPATs are documents explaining how information technology such as hardware and software meet regulatory standards of accessibility. Many of our library resources need to work effectively with assistive technologies such as screen readers in order to be fully available to our users. The Accessibility Working Group tests and monitors vendor products against their VPATs for compliance, and meeting required accessibility standards is a key portion of license negotiation for new and existing library resources.



The Capua Leg is one of the oldest known prosthetic limbs, dating from circa 300 BCE. The original, held at the Royal College of Surgeons in London, was destroyed in an air raid during WWII. A copy is held at the Science Museum in London.

Photo courtesy of the Wellcome Collection, CC-BY.

“Tools for assistance, more interesting and various than I’d ever encountered. All the canes and walkers, the portable oxygen tanks, all the crutches and heavy-duty adaptive tricycles, the extra-support strollers, the plastic syringes for feeding. All the detritus for bodies mismatched, the assistive technologies that do the spotting and fortifying for all the soft flesh of the world.”

Sara Hendren, from What Can A Body Do?

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Ott, K., Serlin, D., & Mihm, S. (2002). *Artificial Parts, Practical Lives: Modern Histories of Prosthetics* (1st ed.). NYU Press.