

## **Reasonable accommodations and the ADA: The impact of technology**

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### **ABSTRACT**

The Americans with Disabilities Act (ADA) requires employers to make reasonable accommodations for disabled employees. The law has not been changed significantly in more than two decades and the requirement for reasonable accommodations has remained the same. However the interpretation of what constitutes reasonable accommodations has evolved considerably. Many technologies have developed that have drastically changed the workplace in general and the types of accommodations that can be made. This paper will explore some of the changes in technology that have impacted the idea of reasonable accommodations. The paper starts with an overview of the ADA. It continues with an exploration of how technology had raised the bar. An argument is made that everyone benefits from the new enabling technology. Potential problems and groups left behind as technology changes the workplace is discussed next. The paper ends with some recommendations for practitioners and researchers.

Keywords: Americans with Disabilities Act (ADA), reasonable accommodations, technology

## INTRODUCTION

The Americans with Disabilities Act (ADA) requires employers to make reasonable accommodations for disabled employees. It was passed in 1990, implemented in 1992, and revised (partially) in 2010. In the more than two decades since its implementation it has been continued to evolve in the courts, being interpreted and re-interpreted, often with contradictory and frustrating results. The inconsistency in the courts is largely an evolution. As technology develops and the workplace changes, the types of and standards for reasonable accommodations change accordingly. In this paper some of the changes in the workplace and accommodations that have been driven by technology are examined.

The article begins with an explanation of the ADA. The legal history, some of the accommodations available and issues associated with the ADA are explained next. This is followed by an examination of the effects of technology on the ability of organizations to provide reasonable accommodations, and how the expectations and standards for reasonable accommodations have changed. The business case is made that the costs associated with technology based accommodations are offset by decreased likelihood of legal action, decreased turnover, an expanded talent pool and increased productivity. The article concludes with implications for practitioners and further research suggestions for academic researchers.

## THE AMERICANS WITH DISABILITIES ACT

Thanks to the Americans with Disabilities Act (ADA), it's illegal to discriminate against people with disabilities. The ADA requires employers to make reasonable accommodations for disabled employees. The ADA can be traced back to the historically 'pro-public' attitude towards access to information that led to the forming of the Library of Congress in 1830. By act of Congress in 1931 the library was tasked with the responsibility to serve the blind and print readers with disabilities (NCD, 2005).

In the 1960's the concept of 'normalization' became popular. The basic idea was that all people regardless of cognitive or physical disabilities should have the same access to everyday living conditions, and the same rights and civil liberties as everyone else. This led to the Architectural Barriers Act in 1968, the Rehabilitation Act in 1973 and amended in 1986, Individuals with Disabilities Education Act - IDEA - 1975 formerly called the Education for all Handicapped Children Act of 1975 (Hollingsworth & Apel, 2008) and the Technology Related Assistance for Individuals with Disabilities Act in 1988 (Light, 2001).

The ADA became a U.S. law in 1990 and was implemented in 1992. Several other laws followed that covered similar areas such as Section 255 of the Telecommunications Act of 1996 which requires manufacturers and vendors of telecommunications equipment and services, and customer premises equipment, to make their products accessible to and usable by individuals with disabilities if it is readily achievable to do so (FCC, 1996).

The ADA covers several areas, including jobs, for most places of business that have at least 15 employees. There are 5 titles in the law:

- Title I Employment
- Title II Governmental Entities
- Title III Public Accommodations
- Title IV Transportation
- Title V Telecommunications

Of interest to businesses is Title I of the ADA, which is designed to prevent employers from using disability as a factor in hiring instead of legitimate qualifications, skills and abilities (Zugelder & Champagne, 2003). A key aspect of the ADA is the idea of reasonable accommodations. These are changes to a job or worksite that make it possible for a qualified person with a disability to apply for a job, do a job, and have equal employment benefits.

Examples of reasonable accommodations include:

- Making the workplace easily accessible.
- Providing or modifying equipment and devices.
- Restructuring jobs.
- Changing work schedules.
- Reassigning staff to a vacant position.
- Providing readers or interpreters.
- Adjusting exams, training materials, and policies

The act covers both ‘actual’ disabilities which impair one or more major life activities and being treated as being disabled due to ‘stereotypes, stigmas and social perceptions’ (Zugelder & Champagne, 2003; Smith, 2002) resulting from a history of the particular impairment and being regarded as having the impairment. The ADA is necessarily vague (Christie & Kleiner, 2001). Where guidelines exist they are not always considered fair or reasonable (Petesch, 1999). In fact, 28% of ADA filings are due to ‘vagueness’ in the law (Christie & Kleiner, 2001). This is because, although the ADA remains the same, the standards for reasonable accommodation change. Techniques for accommodation change, and what is reasonable depends on currently available techniques (Griffin 2013). Exactly who and what is and is not covered by the ADA is not clear (Kilberg, 2002; Ashworth & Kleiner, 2000) is decided on a case-by-case basis (Zugelder & Champagne, 2003). This reliance on court cases allows for necessary discussion as new and unanticipated circumstances arise with the development of technology and public standards (Christie & Kleiner, 2001).

In addition to the techniques for accommodation changing, so has the concept of ‘disabilities’ which has been characterized as being socially constructed (Light, 2001). As such the story of the ADA is found not in the legislation but in the evolution of interpretations in the courtroom. The U.S. Equal Employment Opportunity Commission (EEOC) enforces cases that fall under the Americans with Disabilities Act of 1990, Titles I and V. The U.S. Department of Justice enforces cases that fall under Titles II, III & IV.

Guidelines exist for some issues covered by the ADA. For example, the ADA Accessibility Guidelines for Buildings and Facilities (ADAAG) outlines compliance requirements for small and large businesses, including: raising buttons on elevators, installing ramps, repositioning telephones, and installing water cup dispensers near water fountains. The standards continue to evolve and are frequently amended. The Department of Justice published revised regulations for Titles II and III of the Act in the Federal Register on September 15, 2010. The 2010 Standards is 279 pages long and is meant to “set minimum requirements – both scoping and technical – for newly designed and constructed or altered State and local government facilities, public accommodations, and commercial facilities to be readily accessible to and usable by individuals with disabilities.” (ADA, 2010)

## TECHNOLOGY AND REASONABLE ACCOMMODATIONS

Most firms have complied with Title I of the ADA with regard to employment screening and accommodations. There is a trend towards doing more to accommodate employees with disabilities (Christie & Kleiner, 2001). Research has shown that people with disabilities migrate from temporary to permanent positions at the same rate as people without disabilities (Digh, 1998) and temporary staffing agencies are now becoming more involved with the employment of handicapped individuals (Christie & Kleiner, 2001).

The National Council on Disability (NCD) published a report called 'The Assessable Future' in 2001 (NCD, 2001). In describing the impact of technology in helping the disabled the report stated "The convergence of technology, attitudes, demographics and law has created unprecedented opportunities for eliminating one of the most significant sources of inequality in our society" (NCD, 2001). The report goes on to laud the efforts of those making electronic and information technology (E&IT) accessible to all. In their 2005 report the NCD make an argument for greater investment in assistive E&IT technologies because many of the inventions initially developed for dealing with disabilities have been popular and useful to the general public. Examples that they cite are talking books, scanners and captioning (NCD, 2005). This echoed the findings of a report in the International Rehabilitation Review, which almost a decade earlier concluded that "technology developed in response to disability improves life for all" (Jacobs, 1997).

A series of reports by the Forrester Group commissioned by Microsoft addressed accessible technology and the range of abilities. They considered mild or severe visual, dexterity, hearing, cognitive, and speech difficulties and impairments. In their 2003 study they stated: "The findings in this study indicate that technology currently aimed at people with severe difficulties and impairments can also improve the computing experience for the vast majority of computer users." (Forrester, 2003). They cited a great many innovations, inventions and technical advances in areas such as the captioning of films and television programs, the use of ramps, products designed for readers and writers that are blind. They even mention infant sign language as an idea that was meant for children to communicate with deaf parents and has been shown to have greater developmental benefits (Forrester 2003). Furthermore they estimated that "In the United States, 60% (101.4 million) of working-age adults who range from 18 to 64 years old are likely or very likely to benefit from the use of accessible technology due to difficulties and impairments that may impact computer use. Among current US computer users who range from 18 to 64 years old, 57% (74.2 million) are likely or very likely to benefit from the use of accessible technology due to difficulties and impairments that may impact computer use."

However the ADA itself, even as amended in 2010, does not cover everything. There have been other legislation specifically addressing issues of technology and the disabled. Section 255 of the Telecommunications Act of 1996 requires "manufacturers and vendors of telecommunications equipment and services, and customer premises equipment, to make their products accessible to and usable by individuals with disabilities if it is readily achievable to do so" (FCC, 1996). However there have been many advances since 1996. The NCD called for a national Electronic and Information technology accessibility policy (NCD, 2001). Others have noted the rise in online disabilities lawsuits and an increase in the 'digital divide' (Russell, 2003). In 2008, the independent Worldwide Web Consortium (W3C) issued their own Web Content Accessibility Guidelines (WCAG) 2.0 that addressed a wide range of accessibility issues. The US Department of Justice put out a 'factsheet' regarding upcoming regulations

aimed at accessibility of web information and services, soliciting ideas, opinions and analysis as to how to proceed (USDoJ, 2010). These regulations have still not been presented or implemented.

Despite the wide availability of assistive information technology, it is estimated that among individuals with mild or severe difficulties/impairments, 74% use computers compared with 84% of individuals without difficulties/impairments who use computers (Forrester, 2003). There are many possible reasons for this gap. Employers and employees with disabilities often are unfamiliar with telework or unaware of assistive technology (Moon, 2012). The problems may be in the website design. Web designers are generally aware of the latest possibilities and advances in website design, however are not up to date on the advances in accessibility standards and techniques. Redesigned websites are frequently further from ADA compliance (Griffin, 2011).

Despite the ADA being over 20 years old, 70% to 75% of working age blind adults are unemployed or underemployed (Frase, 2009). The blind have particular problems with computer based jobs. The main approaches for accommodating the blind are magnification, braille and speech conversion. Technological solutions to these problems exist but are underutilized. There are other reasons that employers do not hire blind workers. Employers have trouble finding blind candidates, interviewing them, and understanding their skills (Frase, 2009). This requires significant proactive behavior in a situation where organizations typically take a defensive stance (Jude & Depree, 1999).

Disabled employees and potential employees face barriers when attempting to get reasonable accommodations. ADA protection is often not requested by people with disabilities due to a variety of situational characteristics and personal beliefs (Baldrige & Viega, 2001). In fact, there is strong evidence that the employment of disabled workers has decreased since the ADA went into effect (Acemoglu & Angrist, 2001). Frank and Bellini (2005) identified several categories of barriers. First was broken trust and betrayal. In these situations, those who were charged with dealing with ADA compliance did not do what was expected or required. The second was multiplicity of barriers, such as having to make a request many times or go through an unreasonable number of steps. A fear of retaliation is a real concern for many disabled individuals. The final two themes were problems with technology and the concept of print. Problems with technology are intuitively obvious, although the solutions are not always so obvious. The concept of print is perhaps the most interesting barrier because it is not intuitive. Is a bus driver reading our street signs an access to print issue or just a transportation issue? The first reaction of those who are making accommodations is to convert everything with printed words to braille or audio. In some cases that does not make sense (Frank & Bellini, 2005).

## **CONCLUSIONS, RECOMMENDATIONS AND FURTHER RESEARCH**

Technology has expanded the available workforce and provided reasonable accommodations to make jobs accessible to disabled employees. As technology moves forward, it will continue to change the standards in this dynamic area. A perspective that the technology can help more than just disabled workers encourages companies to develop the technologies. As one report put it “presenting accessibility options and assistive technology products as part of a computer's functionality rather than as an aid for people with disabilities will reach more computer users and will increase the reach of accessible technology” (Forrester, 2004). As an



example, technology has greatly enabled telework programs that have had a positive work/life balance for all participating employees, disabled or not (Simpson, 2011).

Looking towards the future, on the technology front, social networking has been proposed as a 'a potential game changer' ( NCD2001). Immersive digital environments may play some role in providing accommodations in the areas of education and Training, virtual meetings and so on. Again, these technologies will positively impact everyone.

On the demographic front, an aging workforce is beyond a concern, it is an inevitable reality (Moon 2012). Although age is not a disability, older employees are likely to have less acute hearing and vision, which can both be assisted with appropriate technology. Suggestions for practitioners:

- Identify technology and policies that can be used beyond providing reasonable accommodations and provide them for appropriate non-disabled employees.
- Keep an eye out for trends and future possibilities. There is a first mover advantage to early adopters of assistive technology.
- Proactively seek out disabled job candidates..

Suggestions for researchers:

- Explore the costs and benefits of different technologies
- Investigate the internal environments of organizations that are proactive vs. those that are reactive regarding technology and accommodations.
- Investigate the processes by which a specific technology is adapted by an organization, and how technologies diffuse through industries.

The ADA has encouraged the development of technology to meet accommodation needs of disabled employees. Many of these assistive technologies are also of use to individual employees who are not disabled. It can provide a competitive advantage to an organization if it is able to anticipate and provide assistive technology and accommodating policies to as many employees as possible. It might have positive effects beyond compliance with the ADA such as positively changing the culture, increasing productivity and reducing turnover.

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