



White Paper

508 Accessibility: Enabling Learning

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Executive Summary

Providing accessible learning is a fundamental need as today's work force expands to include a more diverse population of workers. This diversity includes the baby boomer generation that continues to work later into retirement age; an educated group of disabled workers who are now graduating from universities and other establishments of higher education; and other workers who have situational disabilities. Accessible learning allows organizations to recruit and retain employees with disabilities and enables the continued contribution of an aging work force. It allows organizations to attract new talent and maintain their investment in their high performance knowledge workers. In short, accessible learning can be more than a compliance goal; it is also a competitive advantage.

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Making accessibility a reality

SkillSoft, a leading provider of enterprise learning solutions, maximizes business performance by providing learning and performance support solutions that connect corporate strategy and individuals. SkillSoft's solutions are designed to support all levels of the organization and can easily be adapted to meet strategic business initiatives, on demand information needs and individual job roles.

Corporate learning is evolving. Corporations have traditionally focused on providing basic learning resources for their work forces, but today learning departments are looking for ways to play a more strategic role. Simultaneously they are looking for ways to maximize learning's effectiveness by placing corporate initiatives in context of the needs of individual employees. Learning has become the connective tissue between the corporate mission and the employees charged with carrying it forward. We call this **connected learning**. In this new paradigm, learning becomes the connective tissue between the high-level business mission and the employees charged with carrying it out.

To reach connected learning, SkillSoft emphasizes the importance of making its products accessible to our clients' entire user populations, including those with disabilities. Our goal is to design, produce and market products and services that are accessible to all.

To accomplish this goal, SkillSoft is committed to a corporate priority that addresses accessibility issues by:

- Giving attention to accessibility requirements and issues in its technology and applications
- Being proactive in meeting any product usability challenges that relate to accessibility and ease of use
- Making software and documentation available to persons with disabilities
- Evolving internal accessibility guidelines and testing procedures in our product development process

- Providing product support programs through SkillSoft's world class Customer Support Group to our end users
- Monitoring accessibility issues in our software to ensure higher compliance with accessibility guidelines in future releases

The law

The issues surrounding accessibility for information technology products and services were brought to widespread attention in 1998 by Section 508 of the US Rehabilitation Act. This law mandates that all federal agencies developing, procuring, maintaining or using information technology must ensure that it is fully accessible to employees and the public. Section 508's primary purpose is to ensure that individuals with disabilities have equal access to, and use of, the information technology used by federal agencies.

While the United States government has taken a lead in setting requirements, international initiatives and laws including the European Union Year of People with Disabilities, Disability Discrimination Act (DDA) of the United Kingdom, Canada's Common Look & Feel, and Australia's Disability Discrimination Act enforce technology accessibility. Other government and quasi government agencies across the world are also increasing the focus on accessibility. Industry associations in Japan (JIS) and Australia (AIS) have defined and developed standards to enhance electronic and IT products for accessibility.

Offering e-learning (as provided by SkillSoft) that not only addresses Section 508 requirements, but also the WAI WCAG 1.0 guidelines used by the majority of countries outside the US as the internationally recognized benchmark of accessibility, ensures a more global and cost effective solution.

Driving accessibility: A view of the current work force Disability by the numbers

There are a number of influencers driving the need for accessible learning. An expanded work force of disabled workers is one such driver. According to the National Organization

on Disability there are over 54 million people with functional disabilities in the US who earn \$1.2 trillion in income and have over \$225 billion in annual discretionary income.

An assessment by the World Bank 2002 found that there are more than 500 million people living with disabilities worldwide. Of those, over 281 million people reside in United States and more than 20 percent have functional disabilities.

While there is still a high degree of unemployment among people with disabilities, there is an increase in people with disabilities who graduate from major universities and training programs and then enter the job market. In addition, there are many who fall into a category of “situational disabilities” that include people with temporary or age related impairments.

An aging work force

Much emphasis has been placed on the 60 million baby boomers that are expected to leave the work force in the next 15 years.

A Jan. 25, 2006 article in the Chicago Tribune states that in a recent survey conducted by Pew Internet and American Life Project, nearly three out of five people ages 65 to 69 and one out of four people from 70 to 75 are online surfing the Web, sending e-mail and posting to chat rooms.

The aging population is no longer computer phobic and is continuing to stay active in the work force. As the general work force continues to age, the incidence of disabilities (for example low-vision, arthritis) increases, forcing organizations to adapt to their employees’ ongoing physiological changes.

The American Association of Retired Persons (AARP) is a nonprofit, nonpartisan membership organization that helps people 50 and over gain independence, choice and control in ways that are beneficial and affordable to them and society as a whole. There are currently 36 million members and their collective influence is being used as a powerful force for positive social change.

In a recent study conducted for the AARP, *Designing Web Sites for Older Adults: Expert Review of Usability for Older Adults at 50 Web Sites, February 2005*, authors Dana Chisnell and Janice (Ginny) Redish performed a study to determine how usable Web sites were to older adults. They chose 50 Web sites, from news sites to financial sites to health care and hobbies; sites that are likely to be used by an older adult in the normal course of a day. Overall, the authors discovered that the Internet is not necessarily an intimidating place for older adults. However, they were able to identify many ways that Web sites could better increase usability not only for older adults, but also for everyone.

Accessibility for all

Accessible learning does not only benefit learners with disabilities and the aging. Debra Ruh, president and founder of TecAccess, an international leader in accessibility consulting, addresses the additional benefits that accessible content provides.

“Accessibility is not only for people with profound disabilities. It’s for a lot of people; those for whom English is a second language, people who temporarily have disabilities, and people who don’t have access to the latest equipment. For example, I don’t have broadband; I still have dial-up, so I have accessibility problems, not because I have a disability but because I have accessibility issues.”

Business benefits

Recruiting and retention

HR and training managers know that recruiting and retaining employees is expensive and difficult. The available pool of skilled knowledge workers in many areas is inadequate to meet market demand. At the same time, the number of people with disabilities entering the work force is growing.

There is an increasing number of corporate, government and industry incentive programs to recruit employees with disabilities. These trends drive the growing need for accessible e-learning to supplement and build the skills of disabled and aging workers. Some of the areas currently experiencing the most serious shortages include teaching, health care and IT.

Ironically, people with disabilities often have these professional skills and yet remain a largely untapped labor pool. Research supports the need to recruit and train disabled and aging employees:

- The potential market for accessibility is large. WE Magazine reports that people with disabilities spend about \$700 billion per year on computer technology.
- EA 2003 study conducted by Forrester Research for IBM indicates that 101.4 million adults ranging from 18 to 64 years are likely or very likely to benefit from using accessible technology due to difficulties and impairments that may impact computer use.
- The Social Security Administration predicts that over the next 10 years the aging baby boomer generation will spark a 37 percent increase in the incidence of disability.
- According to the Microsoft article *Accessibility is Good Business*, “A positive business benefit of this demographic shift is that older workers and workers with disabilities are significantly more loyal and dependable than their younger counterparts.”

Leadership and competitive advantage

Companies strive to build the loyalties of customers and employees. In a Government Computer News article, Mike Paciello, a leading accessibility consultant states, “Industry monoliths including General Electric Co., Oracle Corp. and Science Applications International Corp. develop, implement and promote accessibility as corporate policy.”

By not participating, corporations also run the risk of “brand damage.” For example, companies have faced litigation for inaccessible Web sites (Southwest, AOL and Wal-Mart) and have suffered from negative publicity from advocacy groups.

Paciello feels that leading companies can also build on expertise to drive a competitive advantage. Companies that choose to follow the trend rather than lead, risk losing position and face large investments to retrofit in order to stay competitive.

By offering training programs that include accessibility features, companies open many avenues for positive publicity and enhancement of their brand and company image. Case studies and success stories can be used to promote your commitment to accessibility. The value of this kind of publicity is hard to quantify, but it certainly offsets the investment needed in accessibility.

SkillSoft’s approach to accessible learning

Early on, SkillSoft identified accessibility and Section 508 as major business objectives. This is evidenced by over five years of dedicated work to fulfill SkillSoft’s commitment to accessibility through a company-wide program that has assigned dedicated resources to ensure accessibility across its product lines. Research and development groups were established to address accessibility in current and future products, outside accessibility experts have been hired for consultation services, and working relationships with the disabled (communities of practice) have been established to deliver the highest quality and most accessible products.

SkillSoft aggressively works to ensure its collection of 2,000+ US English IT and business skills courses meet accessibility standards established by Section 508 and WCAG. This development work keeps with our corporate philosophy of helping organizations ensure that all employees have access to training and development opportunities anywhere, any time.

SkillSoft continues to monitor the success of its accessibility program by listening to feedback from customers received through Beta testing, user group meetings and the results of independent testing from accessibility consultants.

Instructional design goals

Recognizing that simply meeting the minimum requirements of Section 508 is not enough, SkillSoft is dedicated to designing universal solutions that are usable and accessible to our entire user base.

By setting its goal as universal design, above and beyond meeting standards, SkillSoft significantly enhanced the effort

and investment behind its accessibility strategy. And the result shows in superior solutions.

SkillSoft's dedicated research and development teams have engaged in an iterative process of defining concepts, developing and evaluating prototypes, and refining designs.

In a 2005 survey conducted by the National Center for Disability Education and Training at the University of Oklahoma, College of Continuing Education and published by the eLearning Guild, three of the most significant barriers to development and delivery of e-learning were identified:

- Lack of expertise among practitioners
- Low organizational priority and support
- Cost to retrofit existing courseware

SkillSoft addressed these issues accordingly:

- **Lack of expertise among practitioners**—SkillSoft created an Accessibility center of Excellence within our research and development organization, hired experts in the field of accessibility and created Communities of Practice by engaging multiple stakeholders for developing and testing accessibility and usability for learners.
- **Low organizational priority and support**—SkillSoft created a Corporate Accessibility Policy that addresses accessibility from the top down and across all organizations to ensure that SkillSoft's products, services and information is accessible.
- **Cost to retrofit existing courseware**—SkillSoft is the first e-learning vendor to provide accessible courseware in the industry. To do this, SkillSoft is committed to creating a new and better way to develop and deliver accessible courses. SkillSoft also made a significant investment in retrofitting our vast library of existing courses.

The result was a comprehensive set of solutions to enable SkillSoft's current US English library and to offer future e-learning products with superior accessibility.

Accessibility for the non-sighted

SkillSoft courses have an extremely high standard of graphic design and visual elements to:

- Illustrate complex theories and concepts
- Supplement verbal instruction
- Increase the learner's active engagement with content

To ensure an equivalent experience for non-sighted users, SkillSoft provides detailed alternative text descriptions for all visual elements — images, graphics, diagrams and animations — that have intrinsic “learning,” as opposed to “decorative,” value.

Working closely with blind users, accessibility consultants and educationalists, SkillSoft defined precise standards for writing alternative text. These standards have been rigorously tested and are being implemented during development.

Accessibility and compliance testing

Currently there are no uniform testing processes for Section 508. Compliance can be established by:

- Validating the product or Web site yourself.
- Finding a person familiar with assistive technology to test the product or Web site.
- Using an accessibility consultant to evaluate and validate the product or Web site.

The closer the validation method replicates how a person with a disability will actually encounter a product, the more information is available to better judge which elements of the product will comply and which do not.

SkillSoft tests with assistive software to validate accessibility, usability and conformance. This produces a better understanding of how these devices interact with different coding techniques. However, it always should be kept in mind that assistive technologies, such as screen readers, are complex programs and take extensive experience to master. For this

reason, a novice user may obtain inaccurate results that can easily lead to frustration and an assumption that the page does not comply with the standards.

SkillSoft reduces the risk by working with accessibility consultants and experienced assistive technology users. SkillSoft applies two yardsticks to measure accessibility-WAI WCAG 1.0 standards and Section 508 requirements.

- **Section 508 (US)**—This is the key legislation that determines whether a product or process can be bought by US federal procurement agencies or other governmental entities, including the military. It provides a checklist in the form of the VPAT instrument and SkillSoft completes one of these documents for each product or product area.
- **WAI WCAG 1.0 (EU)**—These are the guidelines issued by a subdivision of the Worldwide Web Consortium that explain how to make Web content accessible to people with disabilities. The Section 508 requirements evolved from these guidelines (with some changes) and these guidelines are widely adopted by most international organizations (with changes). For example, the most prominent international organization for accessibility, the European Union, has adopted an eAccessibility initiative proposal to base EU community and national accessibility standards for Web content on the WAI standard.

Conclusion

Providing accessible learning to diverse populations of workers is an obtainable goal. Today's diverse work force includes baby boomers who are working later into retirement age; an educated group of disabled workers who are graduating from higher education; and other workers with situational disabilities. Accessible learning enables these workers to thrive and add huge value to an expanding corporate landscape.

As an innovative provider of learning solutions that are designed to connect corporate strategies to the workers entrusted to carry them out, SkillSoft is committed to ensuring that our solutions adhere to the standards set forth by Section 508 of the US Rehabilitation Act and the internationally-recognized WAI WCAG 1.0.

SkillSoft recognizes the value that each employee brings to the work force. Therefore, SkillSoft will continue to innovate and enable rich, fulfilling learning experiences, for all learners.