The Quest to Make Accessibility a Corporate Article of Faith at Microsoft: Case Study of Corporate Culture and Human Resource Dimensions

Leonard A. Sandler[†] and Peter Blanck[*,‡]

This case study examines efforts by Microsoft Corporation to enhance the diversity of its workforce and improve the accessibility and usability of its products and services for persons with disabilities. The research explores the relation among the Americans with Disabilities Act of 1990, corporate leadership, attitudes and behaviors towards individuals with disabilities, and dynamics that shape organizational culture at Microsoft. Implications for Microsoft, other employers, researchers, and the disability community are discussed. Copyright © 2005 John Wiley & Sons, Ltd.

INTRODUCTION

U.S. business and industry was at an important crossroads in July 1992. The first wave of employer responsibilities under the Americans with Disabilities Act of 1990 (ADA) became effective and enforceable on the 26th of the month. For the first time, many employers had to take steps to open their workplace and accommodate within reason the needs of applicants and qualified workers with a disability. ADA provisions regarding public accommodations and state and local governments took effect in January of 1992. In the wake of these changes, the business world braced to

*Correspondence to: Peter Blanck, Law, Health Policy and Disability Center, University of Iowa College of Law, Iowa City, IA 52242, U.S.A. E-mail: peter-blanck@uiowa.edu
†Clinical Professor, University of Iowa College of Law; Associate Director of Clinical, Educational and Special Projects, Law, Health Policy and Disability Center (LHPDC), University of Iowa College of Law; J.D., University of Maryland.
‡Charles M. and Marion Kierscht Professor of Law at the University of Iowa; Director LHPDC; Ph.D., Harvard University; J.D., Stanford Law School.

comply with the law, update personnel and customer service policies and practices, and welcome a segment of the workforce that had long been ignored.[1]

About the same time, census and market research hinted at a growing and potentially skyrocketing demand for consumer goods and services that may be used and enjoyed by people with varying physical, sensory, and cognitive abilities. These market forces were predicted to generate an unprecedented global demand for qualified workers to manufacture these products and services. A new type of recruitment battle had begun.

With these changes in place, the federal government began to use its purchasing power, as well as civil rights laws, to dramatically change the marketplace for computer and information technology. Congress amended and reauthorized Section 508 of the Rehabilitation Act of 1973, which ultimately requires the federal government to buy computers and other electronic office equipment that are technologically accessible to its employees with disabilities (Mason & Lint, 2000). This procurement law was unknown to most Americans and had long been ignored by most agencies and by companies that supply goods and services to the government. Enforcement provisions were enhanced and coverage was expanded to include software applications and all electronic and information technology used by employees or used to provide information to the public.

State governments that receive grant funds from the U.S. Department of Education under the Assistive Technology Act of 1998 must comply with Section 508 guidelines. These grants fund centers that promote the use of technologies for persons with disabilities and others through education, system reform, and advocacy. In 1992, no one knew whether states would conform their practices to the law by purchasing computers, software, or other equipment that are usable by, or accessible to, people with disabilities—or risk losing technology act funds.

Emboldened by these developments and implementation of the ADA and Section 508, disability advocates began to rethink their tactics and strategies to influence corporate behavior and policies (Blanck, 2005). They forged alliances with state and federal officials to identify and remove barriers to employment and technology in private companies and government services (Schartz, Schartz, & Blanck, 2003).

At the center of these crossroads stood the computer and information technology industry. The industry's new products and services promised to revolutionize the home, classroom and workplace (Schartz et al., 2003). This is one of the fastest-growing sectors of the global economy. The companies started analyzing market forces, evaluating competitors, and estimating the number and needs of users of specialized equipment. The goal was to craft strategies to enter and dominate the new and enlarged market.

In Redmond, Washington, Microsoft Corporation embarked on a quest to develop and bring to market software products, systems and services that are more usable and accessible, and to hire and retain qualified individuals with disabilities. Chief executive officer Bill Gates named Greg Lowney the senior program manager for the newly formed accessibility and disabilities division. The

---

[1]For a comprehensive review of the ADA, see Blanck, Hill, Siegal, and Waterstone (2003).

company employed 11,542 people. Lowney was the one and only member of the new group; his mandate was to coordinate initiatives to develop, refine, and market products and services that are accessible and usable by the greatest number of people in the global marketplace.

CASE STUDY: MICROSOFT'S RESPONSE TO DISABILITY LAWS AND THE NEW MARKETPLACE

Researchers from varied disciplines are searching for ways to understand how the business and disability communities have responded to civil rights and other laws intended to empower and protect from discrimination persons with disabilities (Blanck, Schur, Kruse, Schwochau, & Song, 2003; Blanck, Schwochau, & Song, 2003; Schur, Kruse, & Blanck, 2005). The ADA has been of particular concern, as it is the first comprehensive federal civil rights law for persons with disabilities.

The impact of the ADA on the employment prospects and economic independence of individuals with disabilities has been measured in several ways. Researchers have examined plaintiffs' ADA Title I cases rejected by the courts (Colker, 2001). Yet, tallying litigation outcomes offers a limited view of the people and practices making up the corporate culture of a company. Calibrating the net costs and benefits of accommodating employees with disabilities is another, often imprecise method of assessing a company's commitment to disability diversity (Annenberg Washington Program, 1996; Schwochau & Blanck, 2003). Moreover, depending on the definition of disability used, studies suggesting that the employment rates of individuals with disabilities are changing as a result of the ADA have provided mixed guidance (Blanck et al., 2003c).

This study takes a different and, we hope, complementary case study approach. We examine some of the challenges confronted and the solutions developed by Microsoft Corporation (sometimes herein, MS or the company) to integrate technological accessibility and equal opportunity into its employment policies, products, and market strategies. The research explores the relation among the ADA, corporate leadership, and dynamics that drive organizational culture at Microsoft.

By most accounts, Microsoft is the world's pre-eminent, and frequently pilloried, software and technology company. The "Windows" operating system logo adorns computers from Iowa City to Beijing. Interest in the company ranges from fascination to obsession. Retail and Internet store shelves are stocked with shrink-wrapped boxes bearing the MS logo.

In this article, we try to "unwrap" the corporate culture of Microsoft. The qualitative study is framed by our experiences in negotiating entry and access to MS, and understanding its core values and practices, perceptions of disability and accommodations within the company, its new employee orientation programs, and the role of executive leadership in elevating accessibility and diversity to a value we call a "corporate article of faith." We chronicle select events, particularly interviews, in the form of diary notations cast in the present tense. This stylistic liberty is taken to convey the immediacy and richness of our experiences while conducting the study.

Research Questions

The present case study was framed by a series of research questions derived from our earlier studies (Annenberg Washington Program, 1994, 1996), discussed in this special journal issue (see, e.g., Spataro, 2005), and summarized as follows.

(1) How do we measure MS corporate culture?
(2) How has MS corporate culture affected its employees with disabilities and the development of its software products?
(3) What has shaped the company's efforts to enhance the technological accessibility of its products?
(4) What may other employers and the disability community learn from this case study about MS?
(5) What may researchers learn from this project about the study of corporate culture and technological innovation?

Microsoft views corporate culture as a developing and elusive concept rooted in the ''unspoken, unconscious and the implicit'' (Microsoft, 1997, p. 16). Our goal was to capture the essence of MS, its principles, and day-to-day practices with regard to disability. Our challenge was to accomplish this goal in a reasonably objective and accurate manner, using multiple data gathering methods and triangulating sources of information.[2]

In formulating this project, quantitative measures (e.g. economic indicators) seemed inadequate to assess MS culture. Corporate filings and governance documents also only provided a sketch of the organization. Information of interest unfolded in rapid-fire fashion during the study, rendering impractical efforts to sift through literally millions of documents. So too, the effect of laws in the abstract, such as the ADA or Section 508 of the Rehabilitation Act, offered a limited view of the people dynamics at MS (Berven & Blanck, 1998). Therefore, we took a different approach, limited in its own way, by qualitatively examining how MS attempted to integrate accessibility and equal opportunity into its corporate culture. The case study was launched in the year 2000.

MS MARKETPLACE AND WORKPLACE IN THE Y2K

Y2K is a turbulent year for Microsoft. Chairman Bill Gates hands the executive reins to Steve Ballmer. They tie the company's future, going beyond Word, Office and other software, to the Internet and other electronic information and communication services. Antitrust litigation threatens to split the company. The information technology sector is volatile. E-commerce and dot.com start-ups are enticing investors and workers away from MS. Talented and qualified testers, developers, and programmers are in short supply and high demand—Microsoft makes about 9,000 hires in 1999—and employee recruitment and retention strategies are moved to the forefront.

It is a boom time for people seeking jobs, but not everyone prospers in this economy, especially individuals with disabilities. A National Organization on

---

[2]For a detailed description of our research methods, see Klein, Schmeling, and Blanck (2005).

Disability/Harris Interactive study shows that roughly one-third (32%) of people with disabilities are employed as compared with 81% of the general population (Harris, 2000). Individuals with disabilities are a largely untapped, undervalued and under-represented segment of the workforce (Blanck et al., 2003c). Human resource and diversity departments at MS increase initiatives to identify, recruit, and retain qualified workers with disabilities.

The millennium year also marks the tenth anniversary of the ADA. Computers and cutting-edge technologies are heralded as key to fulfilling the ADA's promise and revolutionizing the workplace, home, and classroom (Annenberg Washington Program, 1994). Bill Gates's vision is to have a computer on every desk running Microsoft software. For that dream to be realized, computers must be easy to operate and technologically accessible, including to the estimated 54 million Americans with disabilities. Few at MS doubt that accessible technology is a powerful tool for bringing persons with disabilities into the mainstream of American life, but it is a complex task to deliver products for individuals with different skills and abilities, and with hearing, vision, movement, and cognitive impairments.

The ADA birthday celebration is tempered further by the release of low employment rates for persons with disabilities (Blanck et al., 2003c).

MARCH 2000: ENTRY AND ACCESS

In early 2000, we received an unsolicited call from Gary Moulton, head of the accessibility group at MS, about the possibility of engaging our disability research center to conduct a study on disability and diversity issues at MS. Moulton's idea was to build on earlier case study work at Sears Roebuck & Co. examining corporate culture and disability (Annenberg Washington Program, 1994, 1996).

During March 2000, conference calls between Iowa City and Redmond resolved preliminary matters, research themes, and the logistics for our first visit to MS corporate headquarters. Technology and human resources initiatives were slated to be the focal points of the case study. When we traveled to Redmond, we met with representatives from accessible technologies and marketing. Diversity and human resources personnel were not involved in developing the study. The question of who, in Microsoft parlance, ''owns'' us, sparked ongoing dialogue among us and the diversity and technology groups, and influenced the direction of the research. From the outset, MS staff and our research team functioned under different principles, profit motive being the most obvious distinction. It became apparent during the site visit that both have spent time vetting each other's credentials and interests, and the initial face-to-face contact triggered lasting impressions.

This was our first look at the MS campus. A line of recruits in their early twenties cross the grounds, led by a blue dot badge Microsoft employee. The receptionist's badge bears an orange-colored dot. Badge color denotes status; visitors get green. No one gains further entry without a badge or human escort to swipe and unlock the secure doors.

Gary Moulton escorts us through a maze of offices. From the hallways, which are quiet, each office appears to house one person and computers of different makes and models. Introductions are brief. Moulton is the group product manager for the

accessibility and disabilities group (ADG). Bill Zolna, from a MS public relations firm, joins us. He is a newcomer to accessible technology and the disability community. He is to help us draft the ''magic paragraph''—75 words to capture the essence of the project. We exchange insights about people, disability, technology, and the workplace.

Gary asks us how we would advise an executive who was severely injured in an accident. The question is intended to draw out our experiences. We discuss the importance of work, family, and coworker support. Our comments blend in views about rehabilitation, workplace accommodations and technology, and a sustained coordinated approach. State and federal laws round out the discussion.

We take a break and go to the dining hall. When the fire alarm sounds, hundreds of youthful employees appear, confirming to us why the grounds are called a ''campus.'' Gary guides us to the plaza behind the building and leads us to a ritual site where people gather to celebrate the launch of new products. The names— Windows, Encarta, Office, Heros—are carved into the concrete like the handprints of Hollywood stars. There is space for hundreds more.

Gary then provides us with an oral history of the people, products, and events that have shaped the company's commitment to accessibility and disability. He covers more than a decade. In the long run, his mission is to integrate accessibility into the ''collective consciousness'' of the company. He speaks with the rhythm, cadence, and fervor of an evangelist. The message is reduced to a single phrase; the company will be a success by ''remembering not to forget anyone.''

In ''true Microsoft fashion,'' Gary challenges us to document everything he has recalled from memory. He promises to send thousands of electronic files for us to review and organize. The interview session ends. The first draft of the magic paragraph is completed:

> Microsoft is working with the University of Iowa's Law, Health Policy & Disability Center to study and raise awareness about the competitive advantages of a diversified workforce that includes persons with disabilities. The project is designed to demonstrate how Microsoft's commitment to diversity enriches our people, products and profits. Our goal is to provide Corporate America with a blueprint for best practices that provide equal access and opportunity to all employees, customers and stakeholders.

SPRING 2000: CONFIDENTIALITY, TRADE SECRETS, AND NON-DISCLOSURE AGREEMENTS

Not surprisingly, Microsoft protects from disclosure its trade secrets and proprietary information. Included in this category are computer codes, products and services that are being developed and tested or that have been shipped to customers, strategic and organization plans, and information critical to the company's survival and growth in a competitive and regulated marketplace.

People doing business with MS must sign a confidentiality or non-disclosure agreement (NDA). Former employees, contractors, and consultants sign and remain subject to these secrecy agreements. We had to balance MS's need for confidentiality with our need to move about freely and inquire about company matters (Blanck & Turner, 1987). Without an NDA, no MS employees could speak

or share information with us. It is the first thing MS employees ask to see after we introduce ourselves. The restrictions imposed by the company are comprehensive. Subject to negotiation, we must treat as confidential, and the company has the ability to restrict, the disclosure of information we see, hear, read, or find out from non-public sources (Klein et al., 2005).

Six months pass before the university and Microsoft hammer out the details of the contract. Both claim sovereignty and control over certain terms and conditions. Microsoft asks the university to accept its standard form contract. Pursuant to the contract, we are to be treated like any vendor that must conform to the MS code of conduct. University counsel will not approve a contract that conditions the university's immunity from suit. In the end, both parties yield on what, in practical terms, are minor points.

This is our first lesson in Microsoft's hierarchy and communications channels. The approval process is slow, particularly for a company that prides itself on the ability to make quick decisions and adapt immediately to changing market and customer demand. The university and our research center must assure that information obtained from company, private, and public sources is protected from unauthorized release or disclosure. Faculty, student, and other researchers must sign a non-disclosure agreement as a condition of participation. We receive clearance to proceed from the university.

We receive a first glimpse of sensitivity to disclosure when, at our request, the company's public relations firm furnishes us with an organizational chart. The $27'' \times 17''$ multiple-fold document defies standard photocopying and dissemination and cannot be updated to reflect the reorganizations and personnel changes for which the company is legend. For example, the MS ''headcount'' of employees was 5,635 when the ADA was enacted in 1990. By the year 2000, that figure had quadrupled. MS Senior Vice President for Human Resources told us the company would make about 9,000 ''hires'' in 2000. Within two weeks of receipt, the organizational chart was outdated; no electronic copy is provided for us.

We begin reviewing MS public documents that are posted in electronic formats, but find they have an extremely short shelf- or useful life. For example, federal contractors are required to submit Equal Opportunity Survey Reports to the U.S. Department of Labor. These EEO-1 reports break down the personnel activity, compensation history, tenure, and offer information about women, minorities, and other affirmative action classifications. In this initial stage of research, we found an inactive electronic link to the company's EEO-1 report on the MS website. The link later disappeared, as did our prospects for persuading Microsoft legal counsel or other departments to share the documents or data with us.

With the growing absence of quantitative data, we decided that the one test of Microsoft's corporate culture would be its reaction to emergent disability-centered ideas and beliefs. Based on that premise, we re-thought our research questions to gauge how Microsoft responded to efforts by ''evangelists'' to embed diversity and accessibility into corporate principles and practices; whether people inside the company (or external forces such as laws, market economics, and disability interest groups) are able to elevate diversity and accessibility to a ''corporate article of faith''; and, whether MS may harness these efforts to make diversity and accessibility transcendent corporate values.

SUMMER 2000: RESEARCH QUEST, ACCESSIBILITY, AND CORPORATE ARTICLES OF FAITH

As research ideas transformed into implementation, we came to speak in terms of a ''quest'' because we explicitly realized that the ''ideal'' business disability diversity model did not exist, and in all likelihood is unattainable. This leaves any real-world organization such as Microsoft to experiment and find the formulae that best suit its mission and the ever-changing demands of the marketplace. Of course, this limits the ability of investigators such as us, who are trained to develop research paradigms that are capable of verification and generalization to other like entities, to make sweeping conclusions about their findings.

The generalizability of our findings, however, was not a relevant concept for Santiago Rodriguez, the MS director of diversity. His objective was to achieve accessibility with a capital ''A,'' the union of human resources and technology—people and products—that would open the MS workplace to persons with disabilities. Until his death in 2001, Rodriguez championed in his whole-hearted and hardscrabble manner an array of MS and industry-wide programs to recruit, employ, and advance the careers of people with disabilities.

Rodriguez's projects included: (1) the ''Able To Work Program,'' an online employment recruitment service where individuals with disabilities post resumes and 21 member corporations post jobs; (2) the Washington State Business Leadership Network, which sponsors conferences; (3) internship and scholarship programs for high school and college students with disabilities; and (4) a partnership with the Washington State School for the Blind and the DO-IT, (disabilities, opportunities, internetworking and technology) program at the University of Washington. Rodriguez was certain that these programs would yield dividends not tied directly to established MS market or revenue indicators.

Claudette Whiting, his successor, and Janice Hertz and Madelyn Bryant McIntire, his counterparts in the accessible technologies group (ATG), shared his conviction that a ''business case'' for accessibility exists. These diversity efforts enhance the company's image as a good corporate and global citizen through marketing advertising and media campaigns (which also blunt or counter unfavorable publicity from litigation and other activities). In addition, the programs were to result in Microsoft being recognized as an industry leader and preferred employer and create in the public and consumer mind a positive association between the company's image and its products and services, a spillover effect from other corporate campaigns.

In concrete terms, inclusive hiring practices provide employees with the opportunity to work side by side with, and begin to understand, people from different cultures and backgrounds. For those motivated by financial reward, these initiatives demonstrate to corporate and government leaders, employees, customers, stockholders, and vendors that persons with disabilities are qualified workers who contribute to the bottom line—increased profits and stock prices.

Whatever the preferred measure, Microsoft attributes the company's success to two aspects. The first is its vision of technology. The second, which is intertwined with the first, is the set of values that underscore its relationships with stakeholders and shareholders. The MS focus is on customers, innovation, partners, integrity, entrepreneurial culture, diversity, and community (Microsoft, 2003).

Still, "make money, don't lose money, avoid lawsuits, and avoid headaches" is the mantra of one MS executive. Mission and value statements aside, the bottom line for product groups is return on investment and decisions are based on market share and demands. Operations must be profitable, lean, and nimble, and employees must have similar qualities, and be creative, independent, and loyal. Launching and delivering the product to market by a certain date takes priority over nearly everything else. "Ship it" has become a company commandment that must be obeyed.

These dominant values are entrenched and have been elevated to "articles of faith." Even the company's lexicon is steeped in religious references and overtones. Members of accessible technologies who are assigned to other product groups are "evangelists." Their mission is to persuade the group to design or retrofit software for use by persons with different physical, mental, and sensory abilities. One hiring announcement solicited applications for an "accessibility evangelist." Gates declares a "jihad" when marshalling or redirecting the resources of the company, as when transitioning MS and market from the Disk Operating System (DOS) to the Windows Graphic User Interface (GUI) icon-based system.

SUMMER 2000: ACCESSIBLE TECHNOLOGIES GROUP (ATG) AND DIVERSITY

Within Microsoft, the ATG and its human resources counterpart, Diversity, are charged with making the business case for building accessibility into product lines and integrating persons with disabilities (and others) into the MS workforce. At times, many people in and outside the company have been unable to distinguish between the two units. Technology and marketing experts in ATG are frequently asked about job opportunities at Microsoft and for advice on accommodating employees with disabilities. Members of the public who write or e-mail Gates and Microsoft about private disability concerns receive responses from ATG, whether or not the questions relate to Microsoft accessibility or products. An organizational quirk that at one time placed ATG in the human resources department led to further confusion. A recruitment specialist tagged ATG as an "unfortunate secret," because it has a low profile in the company and many users do not know about the accessibility features ATG designs and deploys in MS Word and other products.

In an environment where product group profits are paramount, groups that develop software products view ATG with skepticism. The ATG has been likened to a police force, a government enforcer, or a welfare state, with a mission to promote disability. Many inside MS think that ATG must contribute tangibly to earn the respect of colleagues. In an unconventional twist, ATG jettisoned the universal symbol of accessibility (wheelchair logo) from the MS desktop and operating system menus. The wheelchair icon directed users to programs that magnify text, narrate instructions, and provide an on-screen keyboard for persons with mobility impairments. Many questioned the placement of the wheelchair logo on the toolbar because there seemed no intuitive link between the symbol and computer use.

Individuals in ATG and Diversity speak passionately and act to raise awareness and re-acculturate staff and executives. Their vocabulary is laced with superlatives to drive home the message that making Microsoft accessible to everyone is "good

business and the right thing to do.'' ATG and Diversity have begun to coordinate activities that highlight accessibility and downplay specific disabilities or diversity categories that tend to ghettoize or offend employees and customers with disabilities.

Casting aside nuances, ATG and Diversity are in a struggle for the soul of the company. ''Killing the icon''—the wheelchair logo—and emphasizing the power of each consumer to customize Windows settings is one of the latest salvos. The change is emblematic of the evolving approach to mainstreaming accessibility in particular and equal opportunity in general.

Yet, the success of ATG and diversity efforts has been hindered for several reasons. Until recently, no established market and business case existed for MS products and services slated for use by persons with disabilities. A fundamental operating principle has been that Microsoft must get its products into the market-place first, because early buy-in tendencies lead to early and retained market share. The downside of a rush-to-market (''death march'') philosophy is the turnover of people, products, and product groups that results when projects are hastily abandoned or fortified with additional people and resources. Wholesale reorganiza-tion and dispersion of groups may occur every six months, resulting in visceral commitments and leaving little time for MS to reflect and create a lasting project history. A ''corporate amnesia'' develops, according to our interviews with World Wide Web Consortium (W3C) technology leader Judy Brewer, and insights are lost. MS is destined, and some ATG veterans say prone, to repeat mistakes and constantly reinvent itself.

Each product group within MS (Windows, Office, games, and so on) cultivates and perpetuates its own identity, and each treats others in the MS organization differently depending on where they are assigned. Historically, MS employees have been cabined by walls, required to have their ''butts in seats'' at all times. When team meetings are called, groups congregate around conference tables to plot products plans on white boards. Working from home or away from the ''team'' until recently has not been supported. People communicate by email, and message alerts chime throughout offices. Telephones are not regularly used to conduct business. The ultimate paradox is that employees must be physically in the building yet remain secluded in many respects.

SUMMER 2000: DISABILITY AND CORPORATE CULTURE

Laws like the ADA and other external regulations, we were told, do not help indoctrinate the MS workforce or penetrate the product group ''silos'' that exist within the company. Federal and state disability non-discrimination laws are intended to remove barriers to employment, but they are not the corporate vehicle for identifying, cultivating, and training a workforce of persons with disabilities. Nor, we are told repeatedly, do laws and external mandates by themselves alter attitudes, behaviors, or beliefs.

''How do I know you're not a mole from the Department of Justice?'' These words introduce us to Allen Slade, MS director, people research. The words are not uttered in jest and are repeated for our benefit. We assure him we are not with the U.S. Department of Justice. Slade confirms with others that we are subject to and

bound by an NDA. Only then do we talk about the people and culture of Microsoft. Carefully arranged shelves of computer printouts line the people research office. They house detailed demographic and statistical portraits of *everyone* in the organization. Slade is the company's profiler.

The crown jewel of Slade's collection is the organizational health index (OHI), a system devised to survey and evaluate the stated values and practices as well as the attitudes central to the company, among other factors. Full-time employees receive and complete a survey; 18 of the 55 questions and answers are used to gauge the company's status. Few people in the organization know the questions that are part of the OHI; each question is selected with care. Questions about disability have not appeared in the survey, let alone the OHI.

One year after our first onsite visit one question about workforce diversity is included in the survey (although we are told that ten questions on the OHI relate in broader terms to diversity). Social science methods and analysis are the essence of his department. The results provide knowledge about the success and direction of company operations, mission, and vision and, in broader terms, its corporate culture.

Slade is candid about his perspective of the prevailing MS culture. He describes the existing commandments fundamental to reaping financial and other rewards. Entry level and new hires are expected to leave everything else behind. Self-doubt or demonstration of self-doubt is not a positive trait. A lack of commitment is not tolerated from employees, who must not engage in visible behavior that demonstrates a lack of commitment. Work hard and drive to get MS products out on time. Employees calculate their tenure at Microsoft in ''dog years'' (each year on the job is the equivalent of working seven years elsewhere). A Washington state appellate court opinion in a disability discrimination case noted that systems engineers in one Microsoft department consistently worked 60 to 80 hours per week (*Davis v. Microsoft*, 2002). The term ''death march'' entered the Microsoft lexicon to describe the mandatory weeks of round-the-clock work that precede the release of new products (Barnes, 1995).

These often unspoken values apply to all MS applicants and employees. They pose serious implications for the company's ability to recruit and retain a diverse workforce of qualified employees. This is particularly true of those individuals with a disability, and those interested in starting or spending more time with a family. It also is true for those who prefer to work on a part-time basis, telecommute, or are ''vested and rested''—have stock options that limit their motivation to put in ''Microsoft hours.''

Supervisors and coworkers may discourage employees (consciously or not) from taking leave, vacation, or leaves of absence that do not dovetail with production schedule demands. Until recently, job sharing, telecommuting, flexible work hours, and working from alternate sites were concepts foreign to the company. The job interviewing process is reputed to be intense and grueling, which may suppress the number of applications received from persons with cognitive or mental impairments (as well as from those who are easily intimidated, or whose learning or performance style does not lend itself to this technique).

Microsoft prides itself on hiring the best. Recruiters and employees emphasize that talent is respected above all else—to the point that software developers, testers, and specialists who have severely impaired vision, hearing, or mobility deny having a

disability. Yet, these individuals are among the Redmond "superstars" who also happen to use sign interpreters, assistive devices, or text telephones to hear or communicate, or use magnifiers, Braille embossers, or other technology to read or see, or wheelchairs, scooters, or other technology to get around.

MS employees who have a disability or know someone that lives with a disability have been responsible for incorporating accessibility features into company products and developing technical innovations that enhance usability or accessibility. They persist even when Microsoft or a product team does not envision or request the improvements. Some spearhead diversity and technological advances. Others comprise the corps of "evangelists" that spread the word to co-workers, customers, potential employees, vendors and government officials. However, without exception, each insists they are not "disabled" in any legal or true sense.

SUMMER 2000: DISABILITY, LAW, AND CORPORATE CULTURE

By this time, we had been interviewing MS employees all day and into the night for more than a week (we were in MS hours). The daily schedule reveals the name and job title of the interviewee and lists any disability apparent to others or voluntarily disclosed by the individual. Employees with disabilities have brought a different perspective to the table, which requires us to plan each interview session. This day, the 2:30 p.m. slot reads Gloria Blaine (a pseudonym)—recruiting coordinator. As a result, we assume that the recruitment and retention of persons with disabilities will be the topic.

Most Microsoft employees have not been told much about what we are doing. We take the time to explain the study and ask for her permission and participation. She agrees. As expected, the discussion turns first to her job. "Attract, develop, keep" is the recruiter's mantra, as it has been since Gloria began working at Microsoft in January 1998. Assigned to the operations group team, she is involved in candidate generation, identifying factors that inhibit and suppress job applications, creating and reviewing applicant profiles, and analyzing retention rates, exit surveys, and other data. "Deep pool analysis" is the term for what Gloria does.

The next question posed to Gloria is innocent enough: "what is your work schedule?" So is the answer: 20 hours per week. It is the "why" question that triggers revelations about herself, Microsoft's response, and people with disabilities. Gloria tells us that when she went to the doctor seeking treatment for a sinus infection they discovered a brain tumor that required immediate surgery. It was Thanksgiving 1999.

Gloria was overwhelmed by the response of her colleagues. Gloria's mother called the Operations Group Manager, who visited Gloria at the hospital and notified other team members and clients. Soon, coworkers surrounded and comforted her. Until then, she wondered what people in "benefits" did. She was surprised when they delivered documents to the hospital that would initiate short-term disability and benefits to cover her salary (her advice is to e-mail people in benefits because people don't pick up the phone at Microsoft).

The "ops" group hired a temporary worker to cover Gloria's assignments. MS medical and insurance benefits were generous—a point that recruiters highlight

when wooing candidates—and she did not have to pay or make co-payments for doctor services or prescription medications. Gloria was disappointed only when she encountered difficulty submitting reimbursement claims for "naturepathic" treatments such as massage and vitamins.

Microsoft, as well as other businesses that supply goods and services to the federal government, are required by law to ask new employees to self-identify as an individual with a disability, special disabled veteran, or Vietnam era veteran. The purpose is to invite employees to assist with affirmative action and diversity programs. Employees are told in writing that the choice is theirs to make; the program is voluntary and no adverse action will be taken against them whether they self-identify or not. Toward the end of the interview, we present Gloria with the "invitation to self identify disability or veteran status" form given to new hires. The definition section reads

> A qualified individual with a disability is a person (a) who has a physical or mental impairment that substantially limits one or more major life activities, or who has a record of such impairment, or who is regarded as having such an impairment, and (b) who can perform the essential functions of the job, with or without reasonable accommodation.

We ask Gloria how she would complete the form today. Conversation halts as she reads and rereads the paragraph; unconsciously, she places one hand on her head. With a feather touch, her fingers trace an incision line across her scalp. Gloria recalls that she had a brain tumor removed, took medical leave to heal and recuperate, received short-term disability benefits and, with accommodations, was able to return to work, but, she says, it never occurred to her until this moment that she was disabled or considered by others to be a person with a disability.

Disability Litigation and Corporate Culture

The accessible technologies group and diversity team members are convinced that legal forces external to the company—such as ADA civil rights litigation and Section 508 enforcement actions—have been the catalyst for change at Microsoft and at other companies. Some product group managers, they admit, are oblivious to diversity/disability laws and do *anything* to get products out, even if they have to leave "bloody bodies in their wake." Managers that adopt such a narrow-minded approach endanger and render the company, which has "very deep pockets," unnecessarily vulnerable to litigation.

Other barriers, not unique to MS, are posed by the company's chain of command, channels of communication, and organizational structure. Legal and HR Diversity specialists customarily operate in separate orbits, leaving generalists uniformed about cases and mandates. The *Davis* case mentioned above challenged the accommodation process Microsoft uses for employees with disabilities who can no longer perform the essential functions of their job. In that circumstance, it is claimed that HR treated the veteran employee like a job applicant—and left him on his own. The court decision, which made no reference to a role played by the MS ADA committee, concluded that HR must participate in the job search to make known to the employee vacant job positions and to determine whether the employee

is qualified for those positions. The state appeals court underscored the role of HR to participate in fashioning reasonable accommodations.

Court decisions and the threat of embroilment in ADA litigation influence the nature of information maintained by the company. For example, forms previously used to track accommodations requests note that use of the form is not ''a legal admission that the employee qualifies under state or federal law as an employee with a disability.''

A class action lawsuit that was dismissed alleged Microsoft engaged in race-based discrimination in jobs, benefits, and other matters. The litigation revealed fissures in the organization that compromised its ability to investigate and resolve complaints, including disability accommodations requests. Responding to this litigation, Deborah N. Willingham, MS Senior Vice President for HR, mustered her staff and insisted that following the ''letter of the law'' was not sufficient. Willingham's approach was reported to us and aimed to transcend ADA compliance (paraphrased):

> When serious allegations are made, immediately and personally investigate, and respond. Don't correspond by e-mail alone or refer the employee to the HR website. Don't just roll over and do what your manager says. Do what's right for Microsoft and don't put the company at risk. Go *beyond* the law, unless the company would be harmed. If a great employee needs equipment to make the job easier, buy the damn thing, even if the ADA or other laws don't require Microsoft to provide the item.

Measuring ADA Impact, Accommodations and Corporate Culture

The ADA, along with state and local laws, govern Microsoft's practices as an employer, contractor, and public accommodation (Blanck, 2000). In the area of employment, these laws focus on increasing the labor force participation of qualified persons with disabilities and reducing dependence on governmental entitlement programs (Blanck, Clay, Schmeling, Morris, & Ritchie, 2003; Silverstein, 2000). Complementary federal initiatives, such as the Workforce Investment Act of 1998 (WIA), the Ticket to Work and Work Incentives Improvement Act of 1999 (TWWIIA), and the ADA, enhance employment opportunities for people with disabilities and prevent discrimination.

For companies such as Microsoft, these laws have raised expectations about the abilities of persons with disabilities to work, be productive employees, and be included in the mainstream of American life (Blanck & Schartz, 2001; Blanck et al., 2003c). The laws generally forbid employers from requiring individuals to disclose disability status (except for affirmative action or accommodation purposes, mentioned above). Fear of litigation and compliance audits reinforce the belief that sharing identifiable information about employees is imprudent and renders the company susceptible to liability.

Our research efforts are complicated by the absence of a standard definition across federal and state laws of who is ''disabled,'' let alone of who is an ''ADA qualified'' individual (Schwochau & Blanck, 2000, 2003). Yet, the definition of ''disability'' and the identification of those who have a disability are, to say the least, critical to our research addressing the employment of those with disabilities and the MS corporate culture.

Microsoft has not developed standard metrics to measure the progress of ATG and Diversity. Based on estimates made available by the company, persons with disabilities constitute a small percentage of its domestic and international workforce. Fewer than 100 of the 20,000 plus Microsoft employees in the United States have identified themselves to the company as having a disability.

Even with the law removed from the calculus, persons with disabilities are averse to disclosing their disability status. MS techies, lawyers, and vice presidents alike, according to Diversity representatives, fear lost promotional opportunities and reduced earnings. As a consequence, it is almost impossible to obtain reliable data about employees, conduct surveys within the company, and estimate the number of people with obvious and hidden disabilities employed by the company.

Microsoft has missed opportunities for gathering and analyzing its disability demographics. An example is the promise made in 1992 by HR to set up a system for tracking accommodations and overseeing ADA training for managers. Despite this shortcoming, the ''ADA accommodations committee'' was created to provide integrated management for accommodation requests. Composed of representatives from HR, Diversity, Benefits, Legal, Ergonomics, and Facilities, the ADA accommodations committee has met weekly since 1992. The company shies away from written policies and procedures, to blunt in advance accusations founded on a failure to adhere exactly to the policy. No formal grievance or dispute resolution system exists that we could find. Responsibility for fielding and resolving accommodations requests is shouldered by HR generalists, who are gatekeepers assigned to each product group.

Among other duties, committee members collaborate with supervisors to address requests, hire consultants, and obtain funds to purchase or modify workstations, door openers, adaptive technology, speech recognition software, and scanners. Managers are free to buy equipment using department funds; we were told that approval is required only for expenditures that exceed $1,000. Recently, the benefits department has been assigned to oversee a centralized system for budgeting accommodation expenses.

Accommodation requests that cannot be honored or managed by the HR generalist frequently involve a person with multiple impairments and are forwarded to the committee. Employees do not attend or have a representative on the committee. Some employees with a disability are unaware of the committee's existence, even though HR and the committee handle disability determinations that require medical certification and need for accommodations. Job applicants and employees with obvious or undisputed disabilities, those persons for example who are blind, deaf, or use wheelchairs, are within the province of Diversity.

The ADA committee guided us through the accommodation process using a case study of a fictional employee named Monica. Their conversations were earnest and lush with lessons from the field and the advantages of what they described as ''centralized disability management.'' Committee members bristled then balked when we requested records documenting the costs and benefits of accommodating employees with a disability. Harvesting data that might exist would be an arduous task that would divert committee members from the day-to-day responsibilities that occupy their time; their performance reviews and rewards are tied to the successful completion of these duties. The ADA committee is obligated, in the jargon of

Table 1. Projected MS accommodation budget:
July 2001 to June 2002

Voice recognition software and training	$30,000
Braille readers	$12,000
ADHD coach	$7,500
Projector	$5,000
Alternative lighting options	$4,500
Braille translation software	$3,500
Headsets	$3,125
Screen reading software	$3,000
21 large monitor	$3,000
Special keyboard	$3,000
Touch sensitive white boards	$2,500
Enlargement software	$1,650
Air quality	$1,500
Special mice	$1,125
TTYs	$1,100
Document scanners	$720
FM amplification system	$650
Infrared amplification system	$330
Keyboard holder	$300
Total	$84,500

software testers, to "find the bug and fix the bug." Unless compelling reasons were forthcoming, accompanied by direction from their superiors, our request would and did remain unfulfilled.

MS disability diversity consultant Mylene Padolina later furnished us with the results of a survey she completed on behalf of MS for Agilent Technologies and Cisco Systems about corporate accommodations policies, budgets, and costs. The answers provided a snapshot of the financial dimensions of disability at MS. The projected MS accommodation budget for July 2001 to June 2002 was roughly $84,500. The ergonomic furniture budget for the then current fiscal year, which is separate from the accommodations budget, was $700,000. Most funds are spent for persons with repetitive stress injuries, mobility impairments, blindness/low vision, and seasonal affective disorder. The 2001 budget allocation for accommodations is presented in Table 1.

To place these 2001–02 expenditures in perspective, we compared them with the number and type of accommodations requested by MS employees during the prior year. A "Microsoft press pass" article of July 19, 2000, confirmed HR estimates for the number of persons with disabilities through requests for accommodations. Approximately 60 employees company-wide used voice recognition software, although some users did not have a disability. About 40 employees regularly used sign language interpreters; some requested the presence of interpreters at meetings that included a person with a disability. HR processed about 200 requests monthly for ergonomic evaluations, leaves of absence, workers' compensation claims, assistive technology, and other accommodations. These numbers, however, include requests by employees who may be injured or temporarily disabled, with a broken leg, for instance, and not covered by the ADA (Microsoft, 2000).

SUMMER 2000: EMPLOYEE ORIENTATION TO MS CULTURE

July 5, 2000: Employee Orientation, Microsoft People— "Light and Dark Sides"

Microsoft welcomes several hundred men and women who start work this day. Rows of tables and chairs await their arrival. Cardboard cases containing forms, memos, information packets, and videotape are distributed. The day is a procession of PowerPoint presentations, instructions on how to complete forms and select from among benefits bestowed on employees; choices about health care and health clubs, ergonomic furniture, vacations, and so on.

Orientation staff packs as much information as possible into the introductory sessions. From this day forward, most exchanges and contacts will be by e-mail or through the HR intranet system. Newcomers are expected to be hard at work the next morning. No mentors stand prepared to show them the ropes. The task of HR and orientation staff is to get these new employees to understand the Microsoft corporate culture. The first step is to recognize the strengths and weaknesses of the people Microsoft recruits, hires, and retains. Diversity produced and reduced to PowerPoint format a profile of the typical MS employee, titled "The light side and the dark side of Microsoft" (shown in Table 2).

Who then makes a difference to Microsoft corporate culture? "Bill Gates, the chief software architect." Gates addresses the new hires today. His words awaken the audience (some of the message is paraphrased below):

> The miracle of the microprocessor is in its potential for fostering creativity and community and empowering people. Models created to develop software involved a standard platform and integrated, coordinated systems. But, advances in technology take place in microseconds. It is time to shift and apply expertise to the human dimension. What will be the Microsoft internal platform and organic support for the company's human resources? What is the charter for Microsoft Diversity and what role can each person play?

Taking the cue from Gates, Diversity and HR set their sights on promoting disability awareness at each orientation session. But their first foray perhaps is too subtle. Rather than introduce the issue head on, they include a videotape in the

Table 2. "The light side and the dark side of Microsoft"

The light side	The dark side
Brilliant, committed, credible	Look to our brilliant leaders for answers and leadership
IQ + self-confidence	Who's the smartest? IQ with an attitude
Work = passion	Burnout, balance problems
Driven to achieve, compete, win	Competitive even inside the company
Acute sense of the value of time	Impatient, can't change gears
Resilient, persistent, bounce back	Drain batteries past recharge point
Never satisfied	Don't show appreciation, say thanks
Self-upgrading	Sink or swim, learn it on your own
High tolerance for change	Easily bored
Love working at Microsoft	Sometimes give up too much of themselves for their jobs and company

orientation packet, to supplement the segment covering ergonomics and accommodations. Produced by Microsoft, ''Enable: People with disabilities and computers'' illustrates how computers and technology improve the lives of people who have congenital and adult onset disabilities. The award-winning tape released in 1999 stars the Flying Karamazov Brothers, who entertain and educate. Microsoft products are never mentioned or highlighted, but the video includes stories of children and adults who live with various disabilities. Diversity and accessible technologies personnel distribute the video free of charge as their calling card at conferences and events.

In 2001, the ATG and Diversity joined forces to release Internet, videotape, and other versions of ''Windows of opportunity,'' a 14-minute, fast-paced introduction to the world of Microsoft employees with disabilities. Interviews focus on the workday at Redmond, coworker attitudes, accommodations and other services, and other matters, from the mundane to the extraordinary. The video lends itself to recruitment, orientation, and publicity activities.

Do new employees break the plastic wrap and view the video? Did they come to Microsoft because of the cutting-edge work of accessible technologies? Do they have a disability or know anyone that does? Do they value diversity? We did not know for sure. Neither did MS.[3]

July 6, 2000: Cultural Diversity and Corporate Survival

News about the antitrust litigation is beginning to undermine morale as well as the potential value of Microsoft stock. Pressed to defend its interests, the company hires Ralph Reed, former head of the Christian Coalition, to lobby and influence Congress and (then) presidential hopeful George W. Bush. A standard-bearer for ''family values,'' Reed is not noted for his tolerance of people who are gay, lesbian, bi-sexual, or transgender. Word of the hire spreads through the company, sparking dissatisfaction and demands for an explanation from Gay, Lesbian, Bi-Sexual and Transgender Employees At Microsoft (GLEAM). It is the oldest of the 27 or so self-organized employee resource groups that constitute the company's Diversity Advisory Council (DAC).

The DAC peer groups include employees who are deaf or hard of hearing (HUDDLE), single parents, women, working parents, Native American, ''visually impaired persons at Microsoft'' (MSVIP), Chinese, Brazilian, African American, Filipino, Hellenic, Pakistani, and who have attention deficit disorder among others. There is no cross-disability group. Free to function as they wish, members communicate through the intranet using ''aliases'' to conceal their identity. Some groups are social in nature. Others offer the opportunity to mentor or network. A few are politically active. Summarized in Table 3 are some of the U.S.-based peer groups at Microsoft circa 1997.

Chief Executive Officer Steve Ballmer is to address members of GLEAM at a lunch arranged through Diversity. We are invited to attend, unsure whether Ballmer

---

[3]As we discuss in the final section, we came away believing that new employee orientation provides an opportunity to survey new hires about their experiences and attitudes towards disability and diversity.

Table 3. U.S.-based Microsoft peer groups (1997)

		No. of members
Religion	• Catholics at MS (SOC)	141+
	• Christians at MS; Christian Events (SOC)	435+
	• Jews at MS (SOC)	234+
Sexual orientation	• GLEAM (Gay, Lesbian, Bi-Sexual) (DAC)	317+
Disabilities	• Attention Deficit Disorder—Employee/Family (DAC)	60+
	• Huddle—Deaf, Hard-of-Hearing (DAC)	7+
	• Repetitive Strain Injury Support Group (SOC)	138+
Gender[4]	• Hoppers	496+
National Origin	• Arabs at MS (SOC)	43+
& Race[5]	• Australians At Large (SOC)	29+
	• BAM Blacks At MS DAC	252+
	• Canadians At MS (SOC)	60+
	• CHIME Chinese, Asian Americans (DAC)	180+
	• Filipino Employees At Corporate (SOC)	36+
	• German Social/Cultural Events Group (SOC)	100+
	• Hispanics At MS (DAC)	91+
	• Indians At MS (DAC)	80+
	• Italians Cultural Information (SOC)	59+
	• MS Employees from Hong Kong (SOC)	68+
	• MS Employees from Mainland China (SOC)	110+
	• Namers (Native Americans (DAC)	32+
	• Russians At MS (SOC)	17+
	• USSR Employees at MS (SOC)	38+

is being taken to task or taking the initiative. From the tenor of conversations among GLEAM members, our bet is on the former.

Ballmer stands front and center. To *our* surprise, he unveils his vision for transforming Microsoft culture. The market struggle warrants different tactics and new ways to think about business practices, partners, and customers. He warns against continuing to define the world narrowly by market share. Cupping his hands around his eyes, like a lookout sweeping the horizon with binoculars, he challenges everyone in the room to keep their eyes and minds open to new ideas and perspectives (some comments paraphrased below):

> The dictate to ''ship it!'' is no longer acceptable. For years, the culture has been to ''throw it over the wall'' with no customer contact and no cooperation across groups within the company. Such an unbalanced approach reflects insular thinking and undercuts the ability of employees and managers to develop ''people skills.'' Recruitment practices perpetuate what is becoming a systemic problem. Thirty percent (30%) of job candidate referrals come from employees, who tend to recommend people whose backgrounds and values are similar to theirs. To shatter this self-fulfilling practice, Microsoft must aggressively target and recruit a more diverse workforce.

In staccato fashion, Ballmer fires off the list of corporate values that are posted on the MS website, and promises that changes will be made. He bounces with energy, flailing his arms and pointing his fingers for emphasis, masterfully modulating his voice with the pacing of a preacher. The imperative is to get the company's missions

---

[4]31.5% of MS employees are women (i.e., 4213 of 13,385).
[5]5% are foreign nationals representing 60 countries.

clearly aligned and develop skilled leaders. A mentoring program will be established to make "much more transparent who are the up and comers" in the company.

"Can Microsoft transform its culture?" Years ago, Ballmer recalls, an atmosphere of fear existed. GLEAM did not exist, and its members would not have dared to meet in public. The comfort level of employees was not a major consideration. Someone in the audience reminds him that people used to tear down from bulletin boards posters that advertised GLEAM events. People were afraid to talk from one cubicle to another about sexual orientation. Now, GLEAM members meet openly and remain active in company affairs, underscoring the success of Diversity initiatives.

"And what about Ralph Reed?" How could a company committed to equal opportunity hire Reed? The issue is broached late in the meeting. At first, Ballmer appears to waffle and disavow the company knew much about Reed's background and beliefs. Then, in gloves-are-off style, he replies that the Justice Department is suing, Congress is scheduling hearings, and competitors are out for blood. Pinioned between these forces, Ballmer says that Microsoft must be aggressive (paraphrased):

> Reed and his consulting firm have the access, savvy and experience to influence policymakers and promote the company's interests (even if his personal values are distasteful). This unorthodox alliance was considered vital to the company's very survival.

The questions and answers then veer in another direction—the need to advertise and market Microsoft and its products in magazines, media, and events directed toward consumers who are gay, lesbians, bi-sexual, or transgender. Ignoring this wealthy market segment is bad for business and the corporate image. Ballmer presides over this brainstorming session to develop a marketing and publicity plan. People in the room now are excited about the ideas as well as their leader's enthusiasm for dollars and diversity. Ballmer is presented with a t-shirt bearing the GLEAM logo. He holds the shirt out to his side, striking a pose that invokes memories of Harry Truman brandishing the newspaper headlining his "defeat" by Thomas Dewey.

Microsoft continues to receive awards and accolades for activities in the Diversity area. Human Resources and Diversity are devising plans to match executive mentors with employee resource groups and mandating training for managers and supervisors. In November 2001, Ballmer circulates a letter company-wide that emphasizes diversity as a corporate value. In June 2002, he rearticulates the corporate mission and vision (summarized in Table 4) to reflect the evolution of its business and focus on customers (in essence its culture). A global inclusive approach intended to embrace diversity is proclaimed a central tenet, "a corporate article of faith."

IMPLICATIONS

Our impressions and findings in this qualitative case study admittedly are particular, if not singular, to Microsoft. MS is a technology company like none other, whose products and services—when accessible and usable—are key to the

Table 4. Ballmer's 2002 mission and vision for Microsoft

Microsoft's mission
To enable people and businesses throughout the world to realize their full potential.
Microsoft's vision
Empowering people through great software—any time, any place and on any device.
Delivering on our mission
The tenets central to accomplishing our mission include:

- *Great people with great values*
  Delivering on our mission requires great people who are bright, creative and energetic, and who share the following values:
  - Integrity and honesty
  - Passion for customers, partners, and technology
  - Open and respectful with others and dedicated to making them better
  - Willingness to take on big challenges and see them through
  - Self-critical, questioning and committed to personal excellence and self-improvement
  - Accountable for commitments, results, and quality to customers, shareholders, partners, and employees
- *Excellence*
  In everything we do.
- *Trustworthy computing*
  Deepening customer trust through the quality of our products and services, our responsiveness and accountability, and our predictability in everything we do.
- *Broad customer connection*
  Connecting with customers, understanding their needs and how they use technology, and providing value through information and support to help them realize their potential.
- *Innovative and responsible platform leadership*
  Expanding platform innovation, benefits, and opportunities for customers and partners; openness in discussing our future directions; getting feedback; and working with others to ensure that their products and our platforms work well together.
- *Enabling people to do new things*
  Broadening choices for customers by identifying new areas of business; incubating new products; integrating new customer scenarios into existing businesses; exploring acquisitions of key talent and experience; and integrating more deeply with new and existing partners.

economic independence and employment opportunities for millions, maybe hundreds of millions, of people with disabilities in the United States and around the world.

Yet, the broader themes identified in this case study, we believe, may be universal for large and small businesses that seek competitive and strategic advantages in the marketplace for customers and employees, many of whom are increasingly persons with disabilities. Our analysis highlights that a primary way to assess whether disability employment policies are economically and socially beneficial is through assessment of information regarding their impact on persons with disabilities and their employers (Collignon, 1997; Schwochau & Blanck, 2000).

Although researchers approach this question from distinct perspectives, a more complete view is gained about disability, law, and corporate culture when information is gathered using a range of approaches and a variety of sources. Assembling information from multiple sources highlights different perspectives and assumptions and helps reconcile apparently conflicting results (Hahn, 1987, 2000; Schwochau & Blanck, 2000). Increasingly, researchers are gathering information that includes individuals with disabilities in the research process, while maintaining scientific rigor and real-world relevance (Blanck, 2000; Seelman, 2000).

Future Directions

In our experience, Microsoft's corporate attitudes and belief systems (culture) did not lend itself to precise quantification and categorization. Other systematic—reliable and valid—measures of disability workforce dimensions and corporate culture are needed (Schur et al., 2005). Yet, it may not be desirable for the research community to adopt a standard definition of "disability" in the employment context, given ongoing variations in legal (e.g. ADA court decisions), governmental (e.g. social security definitions), and evolving social constructions.

In future research, we hope to pursue permission from the Equal Employment Opportunity Commission and State Fair Employment Practices agencies to survey the corporate workforce so that we are authorized to ask applicants and employees to self-identify as having a disability, though not necessarily one covered by the ADA. In such a study, we envision that, over time, company executives, supervisors, and employees would commit to collaboratively gathering data and evaluating the study's findings. The analysis could include matters of recruitment, orientation, performance review, advancement, accommodations, HR policies, and products and services. The research may integrate initial and follow-up surveys into employee orientation, performance reviews, and other channels to ensure longitudinal reporting and evaluation of information gathered from a variety of sources.

Microsoft's Opportunity

The research ideals stated above are complex and expensive. We recommended to MS, and others, that the company conduct several studies to generate information about employees with disabilities, product accessibility, and the attitudes of coworkers and executives (corporate culture indicators).

Retrospective Workforce Portrait

In this study, the target sample is employees who have self-identified or are known by MS to be a person with a disability (though not necessarily covered by the ADA). We would identify employees that fall within this group, and obtain their consent and permission to be interviewed, and to permit researchers to review their personnel records and files. We would examine performance reviews, promotions, salaries, accommodation requests and net costs and benefits, health and retirement benefits history, ergonomic evaluations, departure information, and so on. The analyses would compare the experiences of similar employees who do not have a disability, perhaps randomly selected or matched on certain dimensions (e.g. age, race, education) to those with a disability, but whose identifiers are anonymous. The impact of factors external to disability—economic, legal, and social—would be assessed.

Prospective Workforce Portrait: New Employee Orientation (NEO)

In this study, the sample would be people who attend a Microsoft NEO session. Electronic and accessible surveys and interviews would be conducted about

impressions and perceptions regarding the value of employees with disabilities and accessible technology. Topics examined would include experiences in company recruitment, education, training, and orientation.

The surveys could be cross-sectional (across successive NEO sessions) at different times, as well as longitudinal (surveying the same individuals over time, while at the company and when they leave). Analyses would compare self-reported attitudes and experiences. As in the retrospective study above, objective assessments could include performance reviews, promotions, salaries, accommodation requests, benefits history, ergonomic evaluations, and job tenure. Again, analyses would compare the experiences of ''matched'' employees with and without disabilities. The study would consider differences among those employees who self-identify, those injured on the job, those with family members with disabilities, and those without disabilities. The findings could be evaluated in conjunction with the retrospective workforce portrait.

Product and Product Cycle Study of Accessible Technologies Group (ATG)

A third study would measure the ''effectiveness'' of ATG interventions. MS and its customers often gauge the success of ATG efforts by comparing the accessibility features in products or later releases. The study is designed to evaluate the activities of MS product teams working on the same or similar products. ATG would ''assist'' (as defined and measured systematically) one or two teams assigned (perhaps even randomly) during a product cycle.

We would study the contributions made by ATG and the associated costs and expenses. Beneficial outcomes assessed would include the number and nature of usability and accessibility features incorporated into products, customer response to the product, and accessibility features (tabulated by disability or elderly and other market segments), product sales, and other market indicators.

Study of Evolving Corporate Culture at MS

A corporate policy and organizational commitment by Microsoft are essential to the success of disability initiatives. A carefully constructed written policy is needed to announce, clarify, and demonstrate the company's commitment. This may be done in a manner that eliminates the need to govern corporate affairs by reacting to crises. The draft policy would be vetted at orientation, focus group-type meetings, and through the DAC. Reactions would be encouraged and documented.

It is equally important to develop a protocol and method to systematically track how executive leadership develops and implements policy. The goal is to examine the formal establishment of accessibility and diversity as corporate principles and values. Strategies for commitment and leadership may be developed and accompanied by training for management and employees. The process would lead to the development of performance and compliance reviews, with incentives and consequences for policy implementation. Input and recommendations would be solicited from members of disability organizations, peer groups, and DAC constituents, with scheduled reviews and evaluations of the policies.

Comment on Case Study Method

Qualitative research, particularly studies of organizations and corporate culture, are vulnerable to claims that researchers fall victim to bias from their research subjects (Blanck & Turner, 1987). To help bolster scientific rigor and the practical relevance of this case study, we participated in project reviews conducted by representatives from the National Institute of Disability Rehabilitation and Research. These review panels critiqued the research methods during each phase of the study. Other aspects of the study method are detailed by Klein et al. (2005).

The research involved a multi-faceted, triangulating, approach. The study included archiving and evaluating thousands of public and private documents. We interviewed and observed representatives from Microsoft, the disability community, the information technology industry, and others in the public and private sectors. The research team visited company headquarters to obtain documents, conducted interviews, and observed employees, committees and events, inspected buildings, and immersed ourselves, to the greatest degree possible, in the culture of the company. Securing the cooperation of sources internal and external (including former employees) to MS to verify the accuracy of the collected information was critical.

The research group compiled and coded in a secure, searchable database thousands of electronic internal and confidential documents from the company (e.g. obtained via the NDA) (Klein et al., 2005). These included transcripts of tape-recorded interviews and electronic and paper files obtained from other sources. Some individuals interviewed had signed other NDAs with MS that limited the dissemination of their materials to us. Materials from public sources include documents and information, statutes, regulations, executive orders, letters of assurance, and other legal, compliance, regulatory, and governmental documents.

The research team archived a project bibliography, a list of participants, a chronological history, and a timetable of events relevant to the research. The tape recordings and edited transcripts of the interviews are available in an electronic database. The archives are to be made available to the company and to researchers in electronic, web-based, and alternate formats, if and when the company grants permission.

Members of the research team visited MS corporate headquarters twice. One visit lasted ten days, during which we observed and interviewed people, met with the company's ADA Committee, attended a new employee orientation session, and sat in on a meeting between the CEO and members of the "Gay, Lesbian, Bi-sexual, Transgender Employees At Microsoft" peer group. The investigators toured the campus using the company transportation system, accompanied and unaccompanied by MS representatives, and visited buildings, the Microsoft museum, cafeterias, and recreation and other areas. We interviewed and observed representatives from the company diversity and technology units while attending technology, disability, and employment seminars and conferences hosted around the country.

CLOSING

Our overarching goal is for this case study to improve dialogue about the array of employment opportunities and challenges facing Americans with disabilities. The

development of a cumulative body of research on the national employment policy environment is needed, as no single quantitative or qualitative study or even set of studies provides definitive answers. However, a benefit to having research assembled from a variety of disciplines is that perspectives and assumptions embedded in the research may be brought to the fore.

We intend (of course, if agreeable to our host) to pursue the proposed studies mentioned above. Our ultimate interest is to see whether MS product accessibility is elevated to a corporate article of faith. Our goal, ambitious to say the least, was to examine whether accessibility has indeed become a corporate article of faith at Microsoft; we only have scratched the surface of that question.

REFERENCES

Americans with Disabilities Act of 1990, 42 U.S.C. §§ 12101–12213 (2000).

Annenberg Washington Program. (1994). *Communicating the Americans with Disabilities Act: Transcending compliance—A case report on Sears Roebuck & Co.* (White Paper). Washington, DC: Blanck.

Annenberg Washington Program. (1996). *Communicating the Americans with Disabilities Act: Transcending compliance—1996 follow-up report on Sears Roebuck & Co.* Washington, DC: Blanck.

Assistive Technology Act of 1998, 29 U.S.C. §§ 3031–3058 (2000).

Barnes, K. (1995). *The Microsoft lexicon or Microspeak made easier.* Retrieved September 22, 2004, from http://www.cinepad.com/mslex.htm

Berven, H. M., & Blanck, P. (1998). The economics of the Americans with Disabilities Act: Part II: Patents, innovations and assistive technology. *Notre Dame Journal of Law, Ethics and Public Policy, 12*(1), 9–120.

Blanck, P. (Ed.). (2000). *Employment, disability, and the Americans with Disabilities Act: Issues in law, public policy, and research* (pp. 329–55). Evanston, IL: Northwestern University Press.

Blanck, P. (Ed.). (2005). Corporate culture and disability symposium proceedings. http://disability.law.uiowa.edu/lhpdc/archives/2003_merrill_lynch/ml_symp_archive.html

Blanck, P., Clay, L., Schmeling, J., Morris, M., & Ritchie, H. (2003a). Applicability of the ADA to ticket to work employment networks. *Behavioral Sciences and the Law, 20*(6), 621–636.

Blanck, P., Hill, E., Siegal, C., & Waterstone, M. (2003b). *Disability civil rights law and policy.* St. Paul, MN: Thomson–West.

Blanck, P., & Schartz, H. A. (2001). Toward researching a national employment policy for persons with disabilities. In *22nd Mary E. Switzer Memorial Seminar: Emerging workforce issues: WIA, Ticket to work, and partnerships*. Alexandria, VA: National Rehabilitation Association.

Blanck, P., Schur, L., Kruse, D., Schwochau, S., & Song, C. (2003c). Calibrating the impact of the ADA's employment provisions. *Stanford Law and Policy Review, 14*(2), 267–290.

Blanck, P., Schwochau, S., & Song. C. (2003d). Is it time to declare the ADA a failed law? In D. Stapleton, & R. Burkhauser (Eds.), *The decline in the employment of people with disabilities: A policy puzzle* (pp. 301–337). Kalamazoo, MI: W. E. Upjohn Institute for Employment Research.

Blanck, P. D., & Turner, A. N. (1987). Gestalt research: Clinical field research approaches to studying organizations. In J. Lorsch (Ed.), *The handbook of organizational behavior* (pp. 109–125). New York: Prentice-Hall.

Colker, R. (2001). Winning and losing under the American Disabilities Act. *Ohio State Law Journal, 62*, 240–278.

Collignon, F. C. (1997, January). Is the ADA successful? Indicators for tracking gains. *The Annals of the American Academy of Political and Social Science, 549*, 129–147.

Davis v. Microsoft, 37 P.3d 333 (2002).

Hahn, H. (1987). Civil rights for disabled Americans: The foundation of a political agenda. In A. Gartner, & T. Joe (Eds.), *Images of the disabled, disabling images*. New York: Praeger.

Hahn, H. (2000). Accommodations and the ADA: Unreasonable bias or biased reasoning? *Berkeley Journal of Employment and Labor Law, 21*(1), 166–192.

Harris, L., & Associates. (2000). *National Organization on Disability/Harris survey of Americans with disabilities*. New York: Harris.

Klein, D., Schmeling, J., & Blanck, P. (2005). Emerging technologies and corporate culture at Microsoft: A methodological note. *Behavioral Sciences and the Law* (this issue).

Mason, M. F., & Lint, R. C. (2000). Section 508 of the Rehabilitation Act: An overview and analysis of the government's duty to purchase accessible electronics and information technology goods and services. *Federal Contracts Report, 73*(22). Washington, DC: Bureau of National Affairs.

Microsoft. (1997). *The business of diversity* (on file with authors).

Microsoft. (2000, July 19). *Microsoft recruits, hires and accommodates people with disabilities*. Retrieved September 7, 2004, from http://www.microsoft.com/presspass/features/2000/jul00/07-19disabilityemployer.asp

Microsoft. (2003). *Mission and values*. Retrieved September 15, 2004, from http://www.microsoft.com/mscorp/mission/

Rehabilitation Act of 1973 (as amended), 29 U.S.C. §§ 701–796 (2000).

Schartz, K., Schartz, H., & Blanck, P. (2003). Employment of persons with disabilities in information technology jobs: A literature review for ''IT Works.'' *Behavioral Sciences and the Law, 20*(6), 637–657.

Schwochau, S., & Blanck, P. (2000). The economics of the Americans with Disabilities Act: Part III—does the ADA disable the disabled? *Berkeley Journal of Employment and Labor Law, 21*, 271–313.

Schwochau, S., & Blanck, P. (2003). Does the ADA disable the disabled?: More comments, *Industrial Relations, 42*(1), 67–77.

Schur, L., Kruse, D., & Blanck, P. (2005). Corporate culture and the employment of persons with disabilities. *Behavioral Sciences and the Law* (this issue).

Seelman, K. D. (2000, July 17). *Employment of individuals with disabilities—opportunities and challenges—the best of times/the worst of times*. Paper presented at Employment and Disability Policy Summer Institute, Cornell University, Ithaca, NY.

Silverstein, R. (2000). Emerging disability policy framework: A guidepost for analyzing public policy, *Iowa Law Review, 85*(5), 1691–1806.

Spataro, S. E. (2005). Diversity in context: How organizational culture affects the consequences of demographic diversity in organizations. *Behavioral Sciences and the Law* (this issue).

Ticket to Work and Work Incentives Improvement Act of 1999, Pub. L. No. 106–170, 42 U.S.C. §§ 1322b & 434, and 26 U.S.C. § 1260 (2000).

Workforce Investment Act of 1998, Pub. L. 105–220 (codified in scattered sections of 29 U.S.C. and 20 U.S.C. (2000)).