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Abstract

Over 600 million people world-wide have disabilities ranging from visual and hearing impairments to cognitive and motor skill issues. This number is only growing as "Baby Boomers" age. Previous research reveals that those organizations, such as federal agencies and colleges, which are mandated to have accessible websites, do indeed have higher levels of accessible websites than corporate sites do. This led to the current research, which aims at understanding what factors truly impact a company's decision to provide an accessible website. The results of a global survey of managers from a variety of industries uncovered that the key factors for influencing a company's level of website accessibility are the number of IT professionals employed by the firm, the level of accessibility testing performed, and whether the company is mandated to have an accessible website.

Introduction

Over 600 million people world-wide have disabilities [1] ranging from visual and hearing impairments to cognitive and motor skill issues. The number of people with disability is only growing as "Baby Boomers" age. Though they may not currently suffer disabilities, aging Boomers are likely to encounter them as they grow older. The correlation between aging and an increase in functional limitations, such as loss of eye-sight and mobility, is evident in data showing that over 40% of adults 65 or older have at least one disability [2]. Baby Boomers, a

formidable group of web users (about 76 million), compile a large portion of the work force within the United States [3], and are major consumer with billions of dollars at their disposal [4]. As they age, they will expect companies to address their needs in both their physical and virtual spaces. Further, by 2020 there will be over 64 million Americans (approximately 20% of the adult workforce) over 55 [5]. If companies neglect these users' needs, they face losing customers to competitors who understand the importance of meeting accessibility issues.

In addition to disabilities due to aging, cognitive disorders, such as Autism Spectrum Disorder (ASD), are also growing within the United States population [6, 7]. These groups are not insignificant. In the U.S. alone, 19.3% of the population has some sort of disability. This is the largest minority group in the U.S., even when one considers the Hispanic population which is 14.9% of the US population [8]. In addition to their formidable size, the growing population of people with disability have a strong impact on the economy, since they control over $175 billion in discretionary funds [9].

Though companies have started to become aware of this large group of potential customers, close to 95% of Fortune 100 corporate websites remain inaccessible [10, 11]. Web accessibility, however, is of great importance for a company's market share, as more and more transactions and services that once were only available in physical locations are made available online [12, 13 p. 59). The ability to compare prices and find the best deal has also proven to be a good reason for customers to move from physical stores to the Web [14]. Consumers' transition to the web is not only evidenced by ecommerce sales, but also by the growing online marketing industry [15, 16], which in turn indicates that commerce in today's' business environment requires companies to compete in an increasingly crowded online market [17]. Given the growing population of users with disability, web accessibility is likely to be an important factor in gaining new and/or maintaining customers.

Usability testing is an effective way for a company to understand a typical user's experience [18]. Research indicates that such usability tests can results in as high as 83% returns on investments [19]. The majority of software life cycle cost (about 80 percent) is spent during the maintenance phase. Most maintenance costs are due to usability problems. Fixing a problem after a product is released is 10 times more costly than when the same problem is fixed during the development, and 100 times more costly than when it is fixed during the design. Hence, early detection of usability problems is of great importance. Research shows that companies can gain $10 (US) for every $1 (US) they invest in usability [20]. Given the rewarding return on IT investment from the inclusion of user experience testing, further examination of the factors that are likely to affect usability and accessibility testing by a company are needed. To address this need, this paper first looks at the relevant literature on accessibility that serves as a backdrop to the current investigation. Rooted in previous literature, several research questions are then set out and answered through a survey study. The method used to collect the data for this research as well as the results are presented. The relevance and implications of the results are then discussed.

Background

Though the Americans with Disabilities Act (ADA), enacted in 1990, requires all organizations to make their physical environments accessible to people with disabilities, cyberspace remains unregulated [10]. Website accessibility is lacking across many organizational sectors. For example, only about 59% of colleges' websites are considered accessible [21], and less than 20% of corporations provide accessible websites for people with disabilities [10]. Similarly, a small number of federal and non-profit sites (23% and 10% respectively) are accessible [22, 23].

Advocacy groups, representing a variety of constituents, have taken an interest in monitoring and championing website accessibility. For example, the National Federation for the Blind (NFB) filed suit against Target, stating that its website was inaccessible to people with visual impairments who required screen reading technologies, such as JAWS [24, 25]. Though the case was settled out of court, it resulted in an agreement that gave the NFB oversight of Target's website and the members of the class action suit a large $6 million cash settlement [24].

Other groups, such as The National Information Center for Children and Youth with Disability, and the American Association of Retired People (AARP), are also advocates for ensuring website accessibility [10]. As pointed out earlier, older adults (soon to be all Boomers) are a large population of users [26, 27]. Aging often leads to cognitive and physical limitations that make the web experience different from that of users who do not suffer from such limitations. Thus, many older adults do not benefit from alterations in websites that are geared towards younger populations [26, 27]. As the assertive Boomers disabilities increase, advocacy groups that support the needs of the elderly are likely to begin stronger lobbying for greater website accessibility. In addition, the general public supports the idea that people with disabilities should have additional allowances to assist them in their daily activities. In fact, over 75% of the "non-disabled" feel that the benefits of such concessions would outweigh any additional costs encountered by businesses (or government agencies) [28]. The favorable attitude of those without disabilities towards making websites more accessible is likely to affect consumers' perception of companies that do not provide such accommodations for users with disabilities. Overall, the literature discussed above suggests that providing accessible websites is likely to affect the loyalty towards the company and its products or services by both those with and without disabilities. However, companies that have focused on creating accessible sites have done so mainly if they are targeting people with perceptual or motor impairments specifically.

Outside the US, there are a number of countries which have enacted similar legislation and policies to address accessibility issues. Australia passed the Disability Discrimination Act of 1992 and has issues several documents related to World Wide Web Access through its Human Rights and Equal Opportunity Commission (HREOC) (http://www.w3.org/WAI/Policy/). Similarly, the United Kingdom passed its own version of the Disability Discrimination Act in 1995. Italy, with its Legge Stanca, enacted in 2004, and Germany, with its Social Book IX and Behindertengleichstellungsgesetz - Equal Opportunities for Disabled People Act, created in

2002, have also created legislation to address the need for people with disabilities to better access information technology (IT). As a whole, the European Union, under the Council of the EU, passed a resolution entitled the "Accessibility of Public Websites—Accessibility for People with Disabilities" in 2002. Further, in Asia, both Hong Kong, under the 2001 Digital 21 Strategy, and the People's Republic of China, with its Disabled Persons Law Articles of 1990, are also addressing the need for people with disabilities to access IT. More detail on the international policies and legislation related to Web Accessibility are listed in greater detail at: http://www.w3.org/WAI/Policy/.

International guidelines were created to assist designers in developing truly accessible websites. The initial *Web Content Accessibility Guidelines (WCAG) version 1.0* were developed by the Web Accessibility Initiative (WAI), a sub-initiative of the World Wide Web Consortium (W3C), in 1999. They were then modified in 2008 in version 2.0, which includes more advanced technologies and allows for easier assessments using automated as well as, human testing. The updated WCAG 2.0 version, which includes four guiding principles (perceivable, operable, understandable and robust) and 12 guidelines, is the recommended version to use for designing and testing a site's accessibility. The overall goal, however, remains the same: To make web page content, such as text, images, forms, sounds, and such, accessible to people with disabilities (http://www.w3.org/WAI/intro/wcag.php). Each guideline is testable against the three priority levels. Priority Level 1 (or Level A) equating to a minimal level of accessibility, followed by Priority 2 (Level AA) and Priority 3 (Level AAA) equating to subsequently higher levels of accessibility (see Table 1). It is worth noting that most guidelines do not directly address cognitive disorders and are more focused on disabilities such as visual, motor, or hearing impairments.

Table 1: WCAG 2.0 Guiding Principles and Guidelines

Perceivable
- Provide **text alternatives** for non-text content.
- Provide **captions and alternatives** for audio and video content.
- Make content **adaptable**; and make it **available** to assistive technologies.
- Use **sufficient contrast** to make things easy to see and hear.

Operable
- Make all functionalities available via **keyboards**.
- Give users **enough time** to read and use content.
- Do not use content that causes **seizures**.
- Help users **navigate and find** content.

Understandable
- Make text **readable and understandable**.
- Make content appear and operate in **predictable** ways.
- Help users **avoid and correct mistakes**.

Robust
- Maximize **compatibility** with current and future technologies.

Source: http://www.w3.org/WAI/WCAG20/glance/.

The above discussion highlights the social and business value of accessibility research. To address this issue, accessibility studies often examine factors at an individual level, such as design factors affecting a users' web experience and/or whether a website is accessible or not [11, 18, 23]. While such a perspective is invaluable in improving user experience, it does not provide insight into factors that affect accessibility at an organizational level. Such a perspective can help improve an organization's effort in providing accessible websites. This is the approach taken in the current study. To do so this research investigates several research questions that are discussed in the next section.

Research Questions

Considering the fact that public sentiment is supportive of accessibility and federal agencies along with colleges, which are mandated to have accessible websites, have higher levels of accessible websites than corporate sites, is a mandate a viable incentive for corporations to create accessible websites? Does legislation actually ensure that websites are accessible? This question has been alluded to in previous investigations of website accessibility, but never empirically tested. In addition, given the paucity of accessibility testing by companies [11, 22], several other questions arise, such as what key factors determine if accessibility testing is performed by a company. For example, does the size of a company or its revenue matter? Is accessibility testing more likely if a company usually conducts usability testing?

Method

In order to investigate the research questions, an empirical approach was taken. A survey instrument which captured basic demographic information, as well as particular items related to a company's usability and accessibility testing practices, was developed by three experts (two academic scholars and a web developer/analyzer). One of the academic scholars developed the initial set of questions. They were then passed to the practitioner for a second review for face validity and editing. Finally, a third expert, an academic researcher in the area of HCI and web design, reviewed the survey. The final version of the survey was implemented through a web-based survey sponsored by the Cutter Consortium over a period of one month. Participants, from a wide variety of industries across the globe, were solicited by the Cutter Consortium. The Cutter Consortium is an IT advisory firm that conducts research, consulting, training, and executive education to its clients.

Cutter Consortium uses a single email process for recruiting participants for a survey study: managers and employees in companies that are a member of Cutter Consortium receive only one email invitation. In exchange for their participation, those who complete a survey receive a complimentary summary of the study and its results from the Cutter Consortium. Because of a single email invitation the response rate of Cutter email surveys is typically low (approximately 1%). Additionally, because those who receive the invitation opt into receiving such emails, the participants recruited from the Cutter Consortium form a convenience sample. Despite these

limitations, this is a valuable sample because it consists of employees and/or managers of a great number of participating companies in multiple industries across the globe.

For the current study, approximately 10,000 emails were sent out and 96 usable surveys from respondents at the management level were returned. Though, this is a response rate of approximately one percent, which is somewhat low, falling within the average response rate for previous Cutter email surveys (between 40 and 130). In fact, the returned survey results of this study are on the higher end of typical return rates for the Cutter Consortium requests. Since the researchers did not have direct control of the communication with participants, there was limited possibility to control for non-response bias. For example, it was not possible to send reminder emails or contact participants directly. Though this may be considered a limitation, as mentioned earlier, Cutter Consortium recruiting process provides access to an invaluable source of information for studying factors that can affect website accessibility in corporations that are in different geographical locations, belong to a variety of industries, and have various sizes. For example, the representative organizations participating in this study are headquartered in countries from all continents, except Antarctica. Responding organizations include financial service and consulting firms, as well as utilities and government agencies. The organizations range in size from less than 1 to 10 employees with revenues of less than $1 million to over 100,000 employees with revenues of over $50 billion. Their IT budgets range from less than $100,000 to over $500 million (refer to Figures 1, 2, 3, and 4).
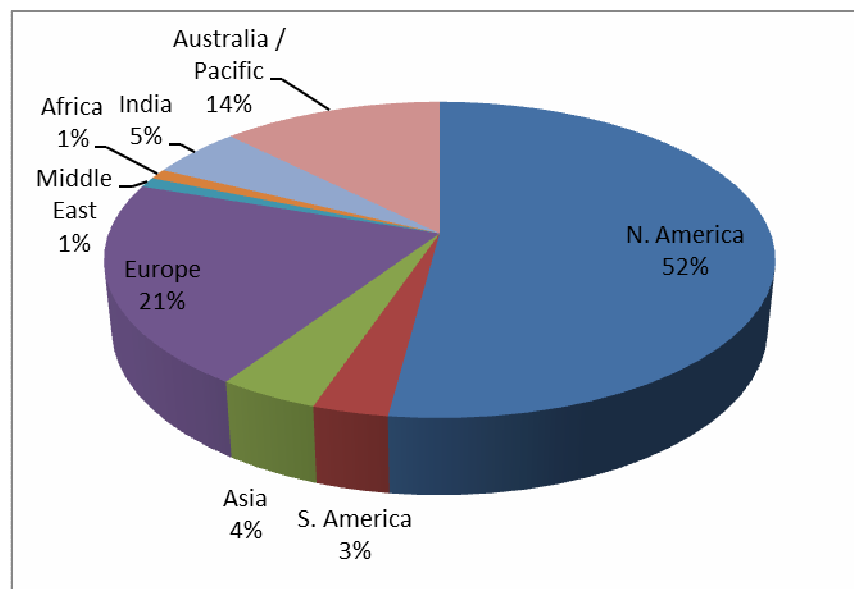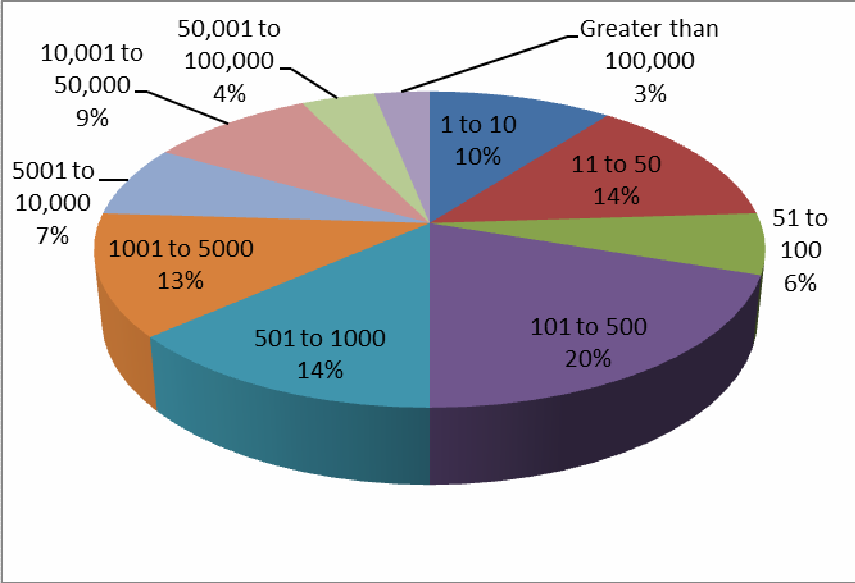

Figure 1: Location of Company Headquarter
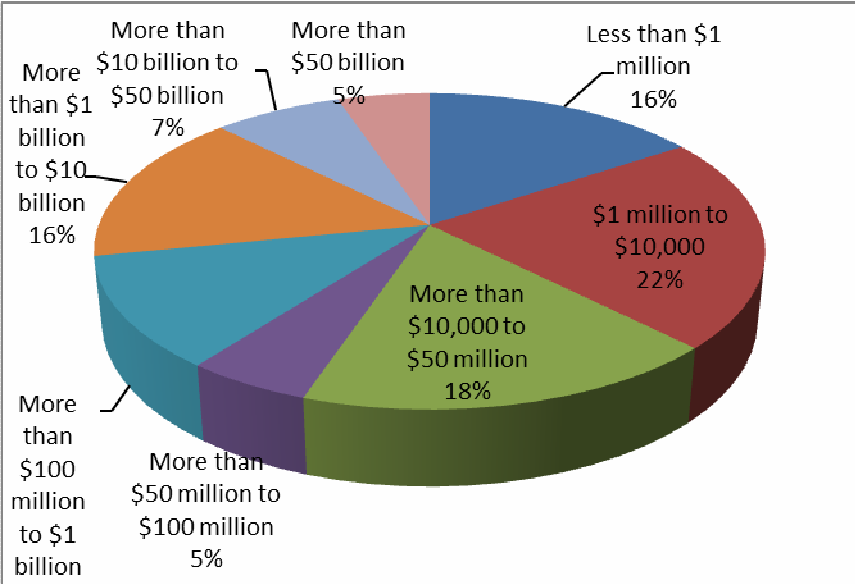
Figure 2: Size of Company (Number of Employees)

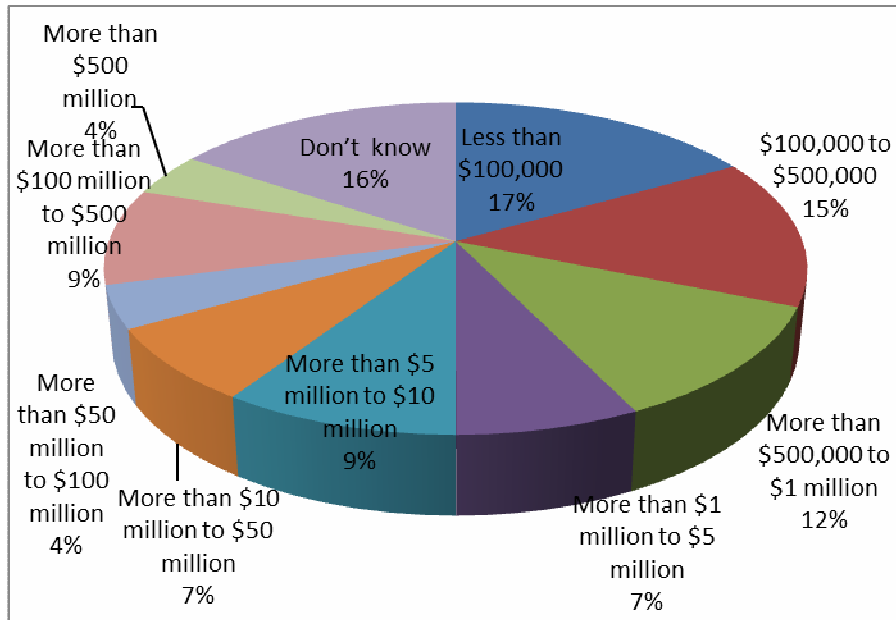**Figure 3: Annual Revenue (US Dollars)**

Figure 4: Annual IT Budget (US Dollars)

Subjects reported the level to which their company's website met accessibility levels. They were asked, "Which level of accessibility does your site adhere to?" They choose from the following list: Web Content Accessibility Guidelines (WCAG) 2.0 Level 1; WCAG 2.0 Level 2, WCAG 2.0 Level 3; None; Don't Know, or Other.

Results

In order to test the research questions, several analyses were conducted. These tests examined the possible effect of factors such as geographic region the company is headquartered in, company industry, company size, company revenue, IT budget, number of IT professionals employed by the firm, use of usability and accessibility testing, as well as legislative requirement. Analyses of variance were conducted to test the significance of the first two variables, region and industry, on a company's website level of accessibility. The results indicated that neither the region where the company was headquartered (F-test = 1.001, p value = .441), nor the industry (F-test = .642, p value = .635) it was in had a significant influence on the level of accessibility the company website possessed.

Next, several regression analyses were conducted to uncover the relationship between the remaining factors (company revenue, company size, IT budget, number of IT professionals employed by the firm) and the level of accessibility. In addition, the level of usability testing, level accessibility of testing, and the requirement by law for the website to be accessible were included to see if they impacted the level of accessibility. The results, shown in Figure 1, indicate that three key factors have a direct impact on the level of accessibility: the number of IT professionals, accessibility testing, and the legal accessibility requirement. The other factors influence the level of accessibility indirectly. Usability testing affects level of accessibility through accessibility testing and company size, company revenue, and IT budget through the number of IT professionals. Figure 5 displays the relationship between the variables and their effect on

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accessibility testing. Several other models where tested to determine if company size, revenue, IT budget, or usability testing had a direct impacts on the level of website accessibility, but none of these models showed such a direct relationship. Turning to the question regarding the consistency of the level of usability testing with the level of accessibility testing that a company conducts, a regressions analysis revealed that the more usability testing a company performs the more accessibility testing it will carry out as well (see Figure 5). The weight of usability testing on accessibility testing is also significant at the .05 level.
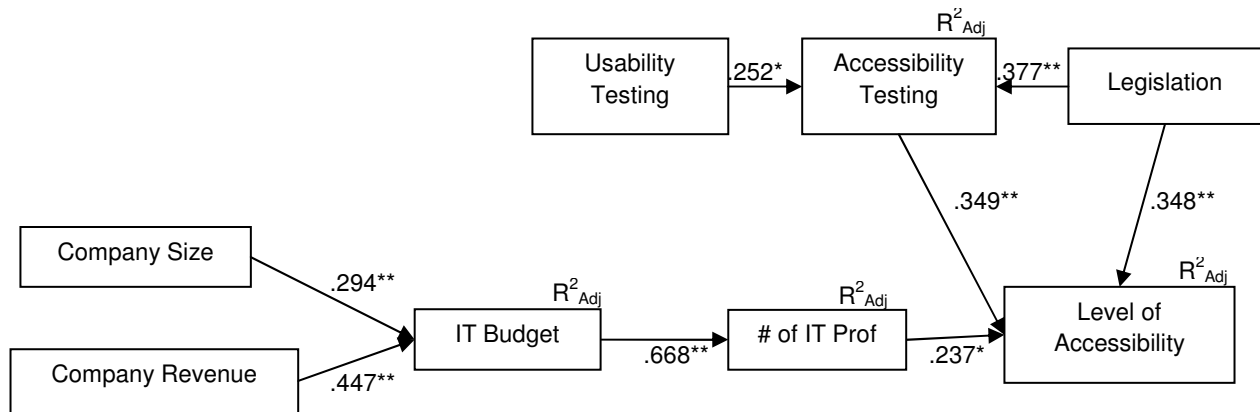
*significant at .05 level.
**significant at .001 level.

Figure 5: Regression Model of Level of Accessibility

Finally, a significant question that has been alluded to [10, 22], but remained untested until now is: Does legislation actually ensure that websites are accessible? A regression analysis was run to determine if those required by law to test their websites for accessibility where more likely to have accessible websites. The results show that legislation affects accessibility levels in two ways: directly by requiring adherence to accessibility standards and indirectly through influencing the number of accessibility tested sites. These results show that having a company required by law to adhere to website accessibility standards makes it more likely that the website will be accessible.

Discussion

While the growing number of people with disabilities indicates that there is a need for companies to make their websites accessible to these users, research indicates that this is rarely done [10, 22]. This lack of attention to accessibility called for further investigation of what factors are likely to improve accessibility testing at companies. This research addressed this need by examining the effect of several key organizational level factors on accessibility testing. Several significant themes arise from the findings of this study. The first relates to the factors

that facilitate an organization's decision to conduct accessibility testing and ensure that its website is accessible. As expected, the size and revenue level of a company indirectly impact the level of website accessibility. This is not surprising and in fact is somewhat intuitive. It makes sense that the more resources, both monetary and human, that a company possesses, the more it is able to dedicate towards a larger number of matters.

An interesting finding is that the likelihood that a company will conduct accessibility testing is highly related to its level of usability testing. The more usability testing a company performs, the more accessibility testing it will conduct as well. The lack of accessibility testing [11, 22] suggests that despite its rewarding economical outcomes [19], usability like accessibility may not be a key priority of many companies and thus receiving the attention it deserves. Because the gathered results indicate that companies are more likely to conduct website accessibility testing if they carry out usability testing, then it makes sense for companies to enhance their level of usability testing and thereby accessibility testing as well.

In addition to the economic incentive - Nielson [19] found 83% return on IT investment gained by usability testing - the results reported here show that the government is a key influencer on the level of website accessibility. This is evidenced in the stronger link between legislation and accessibility testing than between usability testing and accessibility testing in the results. In fact, legislation is likely to be a far more effective strategy in improving accessibility of websites than just increasing the number of usability testing. Legislation affects accessibility levels in two ways: indirectly through increasing the quantity of accessibility tested websites, as well as directly, through requiring that accessibility standards be met.

So, why then has website accessibility remained limited if legislation does increase accessibility and countries are enacting more and more laws and legislation to increase it? One answer may lie with the fact that many cultures cast people with disabilities as "people with special needs" [29]. As such, they are considered the "non-norm" and are not often considered when information systems for the "mainstream" user are being developed. Since it takes considerable effort to address accessibility issues, companies often gamble on the fact that it would be easier to simply design for the culturally defined "norm" and hope that they do not get sued or receive negative publicity for their site's inaccessibility. As Adam and Kreps [30] point out, the mere fact that people with disabilities are considered to need "special" modifications,

> "[has] the effect of separating them from other users and casting them as deficit against "normal" users. A better designed product may have been readily usable by a wide spectrum of users without setting apart some group against a tacit norm. This suggests that emancipation, or at least the seeds of emancipation, lies in the actions of disabled people, identifying themselves as an oppressed group with a set of rights, who wish to pursue their rights to full access to [IT]" (p. 207).

In other words, as with other discriminated groups in the past, such as blacks and women, it is up to them to use the opportunities offered by the current legislation to fight for the rights granted to them by law. This requires, as was the case with the NFB, for people with disabilities to test the strength of current legislation through the legal system. Only through their tenacity in

pursuing what is rightfully theirs will they actually gain it. Societies, concerned with equality, are often willing to support the passage of laws that encourage accessibility to the "disabled", but to ensure that these laws are followed is often neglected since "normal" users of IT do not encounter the same accessibility issues as those with disabilities. As was mentioned earlier, a majority of the "non-disabled" believe that companies should provide access to IT for people with disabilities regardless of the cost [28], and are likely to boycott those companies which do not deliver [10]. However, it becomes an issue of good intentions with little follow through. People will vote in favor of laws to require accessibility, but are often not in a position to judge the level of accessibility. Thus, people with disabilities play a significant role in identifying, pushing the cause forward, and pursuing adherence to the laws once created.

What else can be done? One area corresponds to those factors that can be addressed at a company level. While often minor process changes to website development can yield far more accessible sites [21], companies often lack the awareness of the issue. Most web developers cite the short time demand to create a site and the highly stressful, ever evolving technological environment in which they work as a major obstacle in addressing accessibility [31]. By bringing to their and their managers' attentions the simple ways in which accessibility testing can be incorporated into their site development process, web developers can help their companies enhance their website accessibility levels, as well as reduce costs. As indicated in [32], the earlier issues are uncovered and addressed in the systems lifecycle development process, the less the total cost of development.

Web developers are often trained to deal with usability issues but not necessarily accessibility issues [33]. This may stem from the formal education web designers receive which often times promotes human computer interaction principles emphasizing the need of the "typical" user or a person without disabilities. With the growing number of people with disabilities, however, the stereotypical view of a "typical" user is changing (e.g., aging of the Baby Boomers and the growing of those on the autistic disorder spectrum). In order to retain and continue to benefit from servicing these markets, companies should ensure their web designer and overall IT staff are educated in accessibility from both the technical and business point-of-view. There are several ways in which companies can achieve this goal. One is through the hiring of an accessibility focused consulting firm, which can help the developers realize problems in the current site and how to modify their development process to address accessibility issues sooner. As supported by the findings in this paper, this would require a financial commitment by the company to provide funds for this endeavor. Another is through company support and encouragement of university departments and programs from which they hire. By letting universities know the growing need for educated employees who understand the importance of and possess the skills to address accessibility, companies will contribute to a strong pool of future accessibility proficient workers who they can then hire to fill their IT positions, in particular website development.

Perhaps a more effective strategy for educating the future designers of technology is to start addressing accessibility before secondary education. As technology use becomes more prevalent in middle and high schools [34], accessibility related issues are likely to be experienced at a more personal level by younger generation, both by those who do not find

technologies accessible and those who witness the lack of accessibility for their friends. This in turn provides an outstanding environment for introducing and cultivating the notion of technology design for all users.

Further, website accessibility can be strengthened at the government level in two ways. The first is through enacting a legislative amendment(s), similar to or as an extension of the Americans with Disabilities Act that gives people with disabilities a better case against non-accessible websites. This is a "stick" approach whereby it encourages companies to be website accessible by having legal and financial penalties for those who do not comply. The second is through incentive-based policies. This "carrot" approach would encourage companies to provide accessible websites through enticements, such as tax deduction.

Though at initial glance one may interpret these results to be that only large companies with deep pockets would be able to afford accessibility testing, it could be argued that this is not necessarily the case over the long run. As an outgrowth of companies taking the initiative to make their sites accessible or government interventions, the number of accessibility-based consulting firms would likely grow. With a larger number of players in this field, the availability of such services would likely rise and the cost fall, thereby making such services more available and affordable to smaller companies who would have once found such services cost prohibitive.

Limitations and Future Research

It could be argued that using self-report responses for the level of accessibility from members of an organization may result in higher ratings than what is true. Though this is a concern, the data collected from these subjects lend a unique perspective to the previous research [10, 11, 23], which objectively (through independent site evaluation) measured the level of accessibility of corporate (The Fortune 100) sites to be very low (approximately 30% with no accessibility errors) (see 11). The level of accessibility reported through the self-report survey in this paper is even lower. Only 11.46% of respondents say their websites are free of basic accessibility issues. However, further research looking at the objective measures (through user testing and expert inspections) of accessibility testing combined with corporate subjective data is warranted.

Conclusion

So, why should companies care? From this research it emerges that currently several factors at the organizational level (size of company and budget) and legislative requirements impact the level of a company's website accessibility. What this seems to be saying is that companies find website accessibility to be a costly and daunting task which is only attainable for larger companies. This is clearly not the case. As pointed out by previous research [11, 18, 22], modest adjustments can be made to company websites in order to enhance their website accessibility, which would in turn help gain and maintain market share for the formidable group of consumers with disabilities, who posses such a large amount of discretionary funds. For example, providing features such as text based website alternatives [10] or text font adjustments [18] can increase the accessibility of a website and thus the customer's application.

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Appendix: Abbreviated survey
(only those questions relevant to this study are included)

1. **Prior to launch, did your website undergo…**

Scale:	Not at all	Very little	Some	A fair amount	A lot	Don't know
	1	2	3	4	5	6

   a. **Usability testing**
   b. **Accessibility testing**
   c. **Secure audit testing**
   d. **Load testing**

2. **Since launch, against which of the following industry standards and best practices has your website been re-tested? (Please select all that apply.)**
   a. **CSS**
   b. **x/html**
   c. **W3C accessibility**
   d. **Usability**
   e. **None**
   f. **Other (please specify):**

3. **Which level of accessibility does your site adhere to? (Please select all that apply.)**
   a. **Web Content Accessibility Guidelines (WCAG) 2.0 Level 1**
   b. **WCAG 2.0 Level 2**
   c. **WCAG 2.0 Level 3**
   d. **U.S. government Section 508**
   e. **None**
   f. **Don't Know**
   g. **Other (please specify):**

4. **Is it a legal requirement that your website adhere to W3C accessibility standards?**
   a. **Yes**
   b. **No**
   c. **Don't know**

5. **Do you know what proportion of your target market requires your website to be accessible?**
   a. **Yes**
   b. **No**

6. **What proportion of your target market requires your website to be accessible?**
   a. **100%**
   b. **85%-99%**
   c. **70%-84%**
   d. **55%-69%**
   e. **40%-54%**
   f. **25%-39%**
   g. **10%-24%**
   h. **< 10%**
   i. **0%**

7. **Does your organization use people with disabilities to test your website?**

Scale:	Not at all	Very little	Some	A fair amount	A lot	Don't know
	1	2	3	4	5	6

8. **When your organization uses people with disabilities to test your website, what types of disabilities do the testers have? (Please select all that apply.)**
   a. **Visual impairments**
   b. **Mobility issues**
   c. **Cognitive Impairments**
   d. **Other (Please specify):**

9. **How would you best describe your company?**
   a. **Aerospace Manufacturing**
   b. **Association/Foundation**
   c. **Automotive Manufacturing (including parts)**
   d. **Building Construction/Engineering/Design**
   e. **Colleges & Universities**
   f. **Commercial Research**
   g. **Computer Consulting**
   h. **Computer Hardware Manufacturer**
   i. **Computer Software Publisher**
   j. **Financial Services**
   k. **Government (non-military)**
   l. **Management Consulting/Accounting**
   m. **Medical & Health Services**
   n. **Military**
   o. **Non-Commercial Research**
   p. **Oil/Chemical Manufacturing**
   q. **Other Electronics Manufacturing**
   r. **Other Manufacturing**
   s. **Outsourcing/Web Services/ISPs**
   t. **Pharmaceutical Manufacturing**
   u. **Publishing/Media**
   v. **Telecommunications**
   w. **Transportation/Storage**
   x. **Utility**
   y. **Wholesale/Retail Trade/Distribution**

10. **In which region is your organization headquartered?**
    a. **North America**
    b. **South America**
    c. **Asia**
    d. **Europe**
    e. **Middle East**
    f. **Africa**
    g. **India**
    h. **Australia / Pacific**

11. **How many IT professionals work in your organization?**
    a. **1 IT Professional**
    b. **2-4 IT Professionals**
    c. **5-9 IT Professionals**
    d. **10-19 IT Professionals**

- e. 20-49 IT Professionals
- f. 50-99 IT Professionals
- g. 100-499 IT Professionals
- h. 500-999 IT Professionals
- i. More than 1000 IT Professionals

12. How would you classify the size of your company by number of employees?
- a. 1 to 10 employees
- b. 11-50 employees
- c. 51-100 employees
- d. 101-500 employees
- e. 501-1000 employees
- f. 1001-5000 employees
- g. 50001-10,0000 employees
- h. 10,001- 50,000 employees
- i. 50,001-100,000 employees
- j. More than 100,000 employees

13. What is your organizations approximate annual revenue in U.S. dollars?
- a. Less than $1 million
- b. $1 million to $10 million
- c. More than $10 million to $50 million
- d. More than $50 million to $100 million
- e. More than $100 million to $1 billion
- f. More than $1 billion to $10 billion
- g. More than $10 billion to $50 billion
- h. More than $50 billion

14. What is your organization's annual IT budget in U.S. dollars?
- a. Less than $100,000
- b. $100,000 to $500,000
- c. More than $500,000 to $1 million
- d. More than $1 million to $5 million
- e. More than $5 million to $10 million
- f. More than $10 million to $50 million
- g. More than $50 million to $100 million
- h. More than $100 million to $500 million
- i. More than $500 million
- j. Don't know

15. Please specify what country your organization is headquartered.
- a. (List of all countries given to select from)