Digital Accessibility: Perceptions, Expectations and Reality

Research In Progress

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Abstract

The aspect of equal access to the Web has always been a critical driving factor in the development of this digital medium. Indeed, it was Sir Tim Berners-Lee who stated "The power of the Web is in its universality. Access by everyone regardless of disability is an essential aspect". (World Wide Web Consortium: Web Accessibility Initiative (W3C WAI) 2019)

The question before us is why, when universal access is considered such an essential aspect, do we continue to observe a low rate of adoption of digital accessibility principles? The authors look at the current issues regarding digital accessibility, the different focus between organisations providing websites and applications, and the users who require these services. They examine the disparity between the perception of the organisation of how accessible their information is, and the experience of the user trying to obtain access to this same information.

Keywords: digital accessibility, website, disabilities, human rights

1 INTRODUCTION

The aspect of equal access to the Web has always been a critical driving factor in the development of this digital medium. Indeed, it was Sir Tim Berners-Lee who stated "The power of the Web is in its universality. Access by everyone regardless of disability is an essential aspect." (World Wide Web Consortium: Web Accessibility Initiative (W3C WAI) 2019; World Wide Web Foundation 2019)

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The statement has been made that the Web Content Accessibility Guidelines (WCAG 2.0) is an eleven-year-old standard with less than 3% implementation (DEV Community 2019; WebAIM 2019). We are observing a stronger push from the website owner onto the developer to provide an accessible product. This may be largely the result of the provision of European and Australian Standards for the Procurement of Accessible Services and Products. (Australia 2016; WAI 2019). The use of this Standard is now required in Australia for all Federal Government procurement of ICT products and services and is optional for anyone else to use. Using this Standard, puts the onus on the service provider to guarantee the accessibility of their services and/or products.

2 BACKGROUND

Australia and most countries have now signed and ratified the United Nations Convention on the Rights of Persons with Disabilities (CRPD) (United Nations: Department of Economic and Social Affairs: Disability 2006).

Research (Conway 2014) demonstrates that in Australia despite a Federal Government program to lead a national transition strategy to improve the accessibility of government websites, very little progress was achieved. However, the strategy did heighten the awareness and importance of the issue.

The most commonly cited statistic for the percentage of Australians with a disability that in some way affects their education, employment or mobility is 4.3 million people or 18.3%. This figure represents those who have a "limitation, restriction or impairment, which has lasted, or is likely to last, for at least six months and restricts everyday activities."(Australian Bureau of Statistics 2015)

An Australian survey conducted in 2016 found that almost 7% of Australians are considered to have a significant level of disability and be at greater risk than the general population of experiencing limited or restricted participation in society."(Australian Bureau of Statistics 2016). These figures represent those who experience either "a lot of difficulty" or "cannot do at all" for the core activities of seeing, hearing, walking or climbing stairs, remembering or concentrating, self-care and communication.

While it is not surprising to note the significant percentage of those over 85 years with disability (42.5%), this needs to be kept in mind when considering the lengthening working age, the need to remain connected to family and friends and to be able to participate in a digital society. The percentage of people over 65 has increased from 14.3% in 2012 to 15.1% in 2015. The Survey of Disability, Ageing and Caring (SDAC) reinforces the need to understand the needs of our ageing population in terms of access to information as well as other metrics.

The use of assistive technology is increasing the employment options for people with disabilities, but issues such as cost, availability and access continue to make it problematic for people with disabilities to participate on an equal footing in mixed-ability workplaces. According to Branham & Kane and Wahidin et al, although assistive technology is available, it is not automatically suitable for work in a mixed-ability workplace where issues such as screen readers can be problematic both for the user of the AT and those working in the same vicinity. It would appear there are still issues to be addressed to ensure that the working environment is suitable for people with disabilities, and that coordinating the integration with co-workers is not overlooked in our haste to provide a more inclusive workplace. options. (Branham and Kane 2015) (Wahidin et al. 2018)

3 METHODOLOGY

This research is a work-in-progress as the authors are still analysing survey responses from both organisations and individual users.

Two surveys have recently been conducted by the authors examining issues from both the organisational point of view and that of the individual user. The surveys asked organisations questions regarding organisational attitude toward digital accessibility, their perception of the accessibility of their resources and how those assessments were conducted. Surveys were also provided to individual users, both those with and without disabilities, asking whether they are satisfied that digital resources are sufficiently accessible. The surveys asked if the user had contacted organisations about the accessibility of resources, and if after complaints are made whether satisfactory remediation was conducted. The survey also asked for the chief issues experienced.

The purpose of conducting the surveys simultaneously was to obtain a view from both the organisational and user viewpoint, at a specific point of time. The surveys were distributed to international organisations and users and the full results are currently being compiled into a research paper.

3.1 Perceptions – Organisational Responses

The survey for organisations aimed to discover their response to digital accessibility requirements and their maturity, with accessibility as a standard operating procedure. The organisational survey found that very few organisations are using any type of maturity model for accessibility. Using a DAMM is seen as a method for determining an organisation's high-level approach to accessibility, measuring their current achievement and establishing goals for the future. This typically involves taking a baseline measurement (normally an audit) and then setting goals and establishing a method and timeline for regular testing as they strive to achieve those goals.

The organisational survey received responses from 42 organisations which comprise a cross-section of organisational classifications including government (19.5%), not-for-profit (12.2%), commercial (41.7%), academic (9.8%) and other (12.2%). Of these organisations, over 90% stated that digital accessibility was important to their organisation.

While most organisational respondents (90.2%) stated that digital accessibility was important to their organisation, only 71.4% had their website evaluated for accessibility. Of concern, is that 46.3% of the evaluations were completed internally as opposed to using external experts (21.9%). The evaluation of digital material was even less for mobile (57.1%) and only 42.8% for applications. (Figures 1).

Only 9.5% of organisational respondents stated they carried any level of certification. This would seem to be at odds with the responses to the question regarding the importance of accessibility compliance. Responses indicate no organisations felt compliance was either 'not useful', 'unnecessary' or 'a waste of time'. Most respondents stated that digital accessibility was 'a standard operating procedure' with very few stating it was 'not a consideration' or 'not defined'.

The survey asked organisations if they felt their website was accessible (Figure 2), and 57.1% felt it was accessible, with 21.4% stating they meet the Web Content Accessibility Guidelines (WCAG), Version 2.0 to Level AA (the current Australian requirement), and 23.8% stating they met WCAG 2.1 to Level AA (the new version of the standard adopted in many countries. In Australia, the Federal Government recommends complying with WCAG Version2 .1, although this is not yet being formally required.

Organisations stated they provided training to staff (66.7%). Respondents were asked for the most important digital accessibility needs in their organisation and 19% of respondents stated training is still needed. Equal numbers stated that resources to fix digital material and internal support were the most critical needs (21.4% for each).

It would see from the above results, that while organisations understand that digital accessibility is important, they do not grasp the importance of establishing a method for determining compliance and setting goals for improvement. Most respondents felt their website was accessible, and this would seem to be at odds to the answers from individual users described in the next section.

3.2 Expectations – Individual Responses

Individual users with and without disabilities often complain about the usability of a website. The authors attempt to determine how the users voice their frustrations (if they have any), whether they chose to deal with organisations whose websites are difficult to navigate for them, and whether they are checking to see if complaints have been actioned.

While the surveys were distributed internationally, as the survey originated in Australia, the authors asked if respondents understood the Australian Requirements, with 35% answered in the affirmative, indicating the probability that most Australian respondents understood requirements in this country.

The survey was open to any individual and to assist with understanding issues, it asked if people had a disability, and 54.8% replied in the affirmative, and 45.1 in the negative. It was determined that this was important as the authors wanted determine whether people other than those identifying as having a disability considered digital accessibility important. Interestingly, while 54.8% had replied they had a disability, 46.9% stated they were affiliated with a disability support group, showing that approximately 5% of people with a disability do not associate with a specific group. Not everyone who has difficulty with digital material has a specific disability. The survey asked what other issues affected people interacting with digital material.

- 13.16% had age-related issues
- 3.95% were affected by lack of computer skills or knowledge
- 15.8% experienced financial limitations such as the cost of assistive technology
- 6.6% had difficulty with access to technical support and advice

The authors wanted to understand the most prevalent issues facing users. Respondents were able to tick as many issues as they felt were applicable for them. The main issues which more than 50% of respondents ticked included:

- Poor design (73.4%)
- CAPTCHA and other robot-detection methods 65.8%)
- Poorly designed forms (63.2)
- Difficulty finding relevant information (60.7%)
- Structure, headings, etc. (56.9%)

In attempting to understand the significance of issues for the users, the authors asked whether they had ever left a website because of its accessibility, of which 65.4% replied in the affirmative. (Figure 3) As 54.8% of respondents, stated they had a disability, the number of people affected by accessibility is greater than those with a specific disability. This is further substantiated by the previous question about other issues besides that of a specific disability which affected users, such as age, financial restrictions etc. Of the people who responded, 58.7% of people had complained to the owner of a website about the accessibility, however only 57% of those who complained went back to check if the issue had been fixed. It is interesting that if 42.4% did not go back and check, we can assume they did not go back at all, meaning that they found somewhere else to get the information and did not use that website again. (Figure 4) It would stand to reason that if they went back to the website, they would have looked to see if the website owner had fixed the issue. Of the users who did go back to check, only 12% found that the issue had been fixed, with a full 37.3% stating that when they checked, it had not been fixed.

4 DISCUSSION – THE REALITY

The surveys have recently closed, and results are currently being finalised into a report. However, results show a clear discrepancy between what organisations believe about their adoption of digital accessibility guidelines displays and the experience of their users.

Users (95%) clearly stated the design or accessibility of the website affected their impression of the organisation, in much the same way that the physical appearance of a business affects our impression of the organisation, their values, their services etc. Users strongly also stated that if there was a choice of website for the information they required, a website's accessibility or design would motive them to choose a different website (95% in the affirmative, 3.7% negative, 14.8% unsure).

It is encouraging to see that 66.7 % of organisational respondents still plan to have their website or applications evaluated further, however it is not apparent if the plans are for internal or external evaluation. The discrepancy between results from internal and external evaluation may answer the question regarding the disparity of the organisation's perception of their accessibility and the experience from the user. Internal validation poses an obvious bias or lack of understanding of requirements. This is also dealt with in the assessment of the Australian National Transition Strategy for Website Accessibility (NTA) where if credence was given to the answers from individual organisations covered in the strategy, it would seem that most organisations were compliant at the end of the NTA, however

the results of Conway's analysis states the opposite to be the result with few obtaining compliance when tested. (Conway 2014)

While almost all organisations state accessibility is important to their organisation (Figure 1), as shown in section 3, they were not all involved with assessing the accessibility of their websites, and few organisations are making digital accessibility a core aspect of their business. Indeed, those organisations who had their website, application or mobile website assessed, only 58.5% had fixed the issues highlighted.

5 CONCLUSION AND FUTURE WORK

As the survey have recently closed, the researchers are working on assessing responses. Final results of this work will be communicated to the ICT industry, business management and relevant regulatory authorities via a discussion paper for circulation. The authors hope to promote greater awareness of the need for digital accessibility, not only for those with a specified disability but in order to promote the provision of information in a more usable format for all users.

Results do show there is a discrepancy between the perceptions of organisations of their digital accessibility compliance and the expectations and experience of the users. People are obviously frustrated with the lack of accessibility and believe that it reflects badly on the website owner's organisation.

Website owners appear to publicly embrace the importance of digital accessibility, but do not appear to be making enough effort to ensure their products are accessible or usable by people with disabilities.

There is a clear potential for the digital divide to widen further, with the aging population and the push for more products and services to be provided digitally. One of the chief concerns will be for services which do not have alternatives, such as government services. While in the user survey, respondents indicated they seek alternative services if the information is not accessible, in many cases the user is unable to select a different provider, and could be precluded from conducting business, maintaining personal security and independence.

As the users overwhelmingly (81%) believe that accessibility is not currently being sufficiently legislated, yet most countries have adopted the United Nations Convention on the Rights of Persons with Disabilities, it may be the right time to examine legal means to enforce this important human right of freedom of access to information regardless of the person's abilities or disabilities.

It is hoped that this current research will highlight the need to improve communication between users and digital material providers, inform organisations of the needs and experiences of their users and highlight the business implications for organisations who provide information that many people find inaccessible, causing them to seek alternative sources.

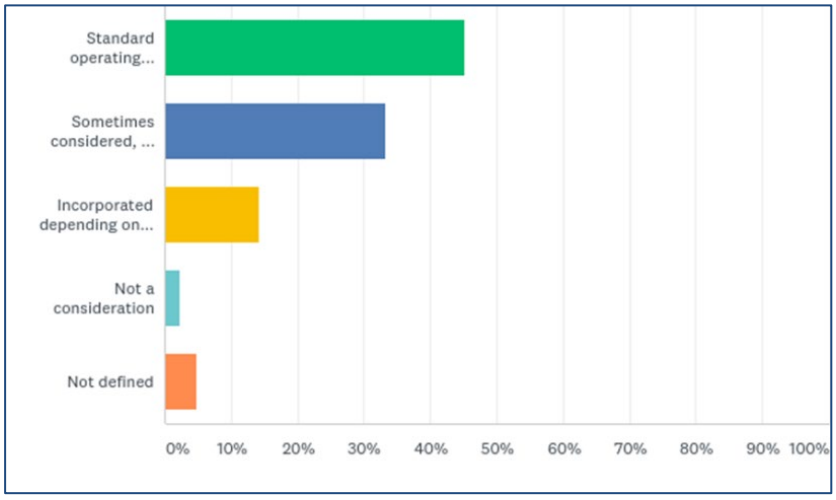

Figure 1: Digital Accessibility in our organisations is...

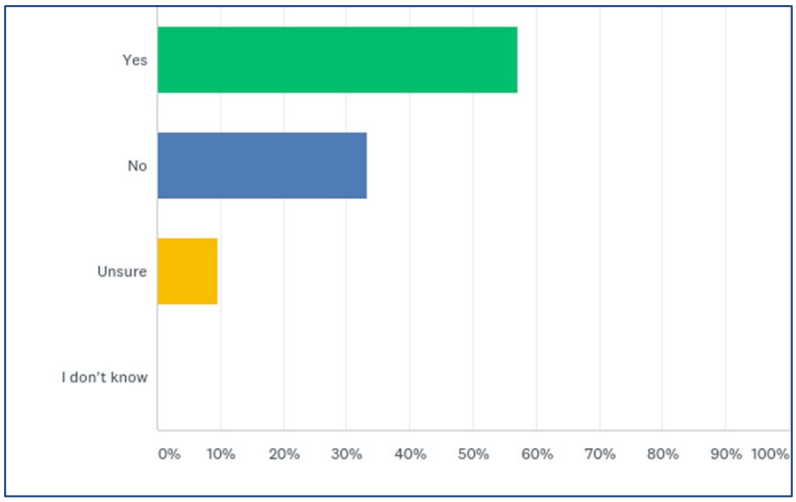

Figure 2: Do you think your website is accessible?

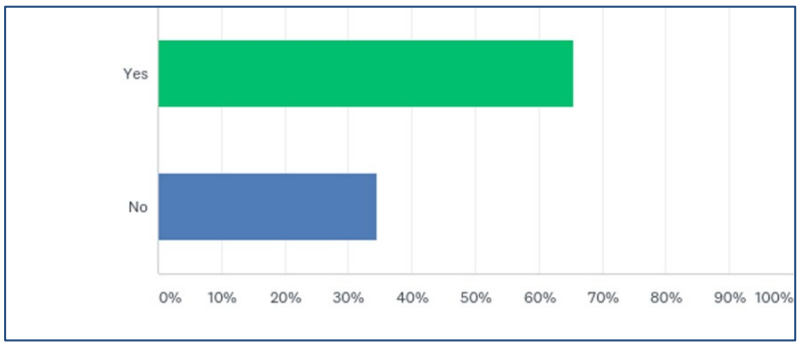

Figure 3: Have you left a website because of its accessibility

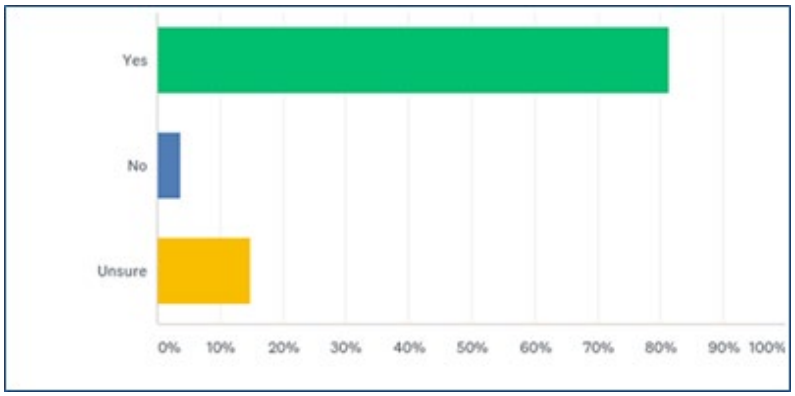

Figure 4: If there was a choice of website for the information or service you require, would the website's accessibility or design motivate you to choose a different website?

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