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OK4U: E-GOVERNMENT THROUGH THE EYES OF THE ABANDONED GROUP IN MALAYSIA

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ABSTRACT

While the majority of the people believe in the notion of 'The world is at the end of your fingertips, it is an absolute lie towards the minority group of *People with Disability* (PWD) when deliberately excluding them in service recipients in e-government services. As of January 2021, there were an estimated 592,856 (Jabatan Kebajikan Masyarakat, 2021) registered as Malaysia's PWD. While constantly being denied in the physical world, they are also facing discrimination in the cyber world as the majority of existing Malaysian government portals still do not consider the values of accessibility thus ignoring and delaying them in receiving services. According to the United Nations E-Government Development Database (UNeGovDD), Malaysia ranks at 47 out of 193 countries on the E-government development index in 2020. Hence, a universal and inclusive web design is needed to improve e-government's performance that caters to regular consumers while considering the PWDs users too. OK4U is an initiative to opt for a widget extension tool that can destroy the inaccessibility barriers designed for PWD via various features, hence complementing their needs when browsing e-government government portals. The purpose is to create and improve users' experience for PWD when surfing the government's portals. The policymakers should also urge all the service providers to provide an OKU-friendly web while all the features should also apply to all devices be it through personal computers or smartphones while being in a standardized design. Through its implementation in every government's portal with a consistent and standardised design, it can be an impetus for bigger national development projects and websites which are accessible and inclusive. Given the continuous awareness of the community needs to be nurtured, in a time when the spirit of goodwill of the country will be further enhanced, thereby ensuring the well-being of the people.

Keywords: E-government, accessibility, persons with disability (PWD), universal design, inclusive design, Policy-Making.

1. INTRODUCTION

World Web Wide Consortium (W3C), director and inventor, Tim Berners-Lee, mentioned that the power of the Web is in its universality while it needs to be accessible by everyone regardless of disability. Supposedly, the cyber world should create a barrier-free medium that the physical world couldn't offer. Research has found that many individuals have become more active in participating in the democratic process through increased access to government information online (Marcella & Baxter, 1999). Jaeger (2006) mentioned that to make e-government inclusive to all citizens, it must be fully accessible to all citizens, including those with disabilities. Considering the context of web accessibility among persons with disabilities community, Malaysia's e-government is regarded poorly as it is not entirely inclusive while inconsistent in design. Web accessibility is defined as a site that is accessible to the largest possible range of people in which the more people can access a website, the more accessible it is (Zeng, 2004). Meanwhile, inclusive design is a system designed for a wide range of users of different capabilities including the disabled and elderly (Keates et al, 2000). This leads to the exploration of the subject matter in which the widget extension tool must be standardised and consistent in design

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throughout all government's web while offering multiple new features that can complement the users' needs. For example, a web should be designed such that the web's font can be changed to a Dyslexia-friendly font, filter any materials that could trigger epilepsy, voice recognition or reading mask that could increase concentration for users of ADHD, while the 'normal' users can still access the web normally without ruining theirs and the web's dynamics. This can be achieved through the widget extension tool. Significant social consequences of alienation for any citizen groups can be witnessed through the lack of accessibility to socially important information and services (Jacko & Hanson, 2002; Jaeger, 2004a; Jaeger & Thompson, 2004). Consequently, due to the inaccessibility, physical disability can turn into a social disability (Goggin & Newell, 2000, 2003). Jaeger (2006) concluded that inaccessible sites will deny people with disabilities participate in a very practical sense. Their access will be denied to many services and information if accessibility is not significantly increased, as more of them have become exclusively available online.

2. MATERIALS AND METHODS

Inspired by Section 508 of the Rehabilitation Act of the United States, it is required that their e-government sites be accessible in which it is developed, procured, maintained, or using electronic and information technology in which people with disabilities will have equal access to them. The United States progressively has included and compiled a comprehensive set of accessibility standards (http://www.section508.gov) with which their e-government websites are legally required to comply with. Ultimately, if all their e-governments sites properly implement and follow the standards, their information and services can be accessed equally to all users while making accessibility more achievable. The United States has managed to outline a clear blueprint for creating more user-friendly sites while being able to argue for resources, create good policy, and set guiding principles for new technologies (Hudson, 2002). Referring to a journal called Multi-Method Evaluation of U.S. Federal Electronic Government Websites in Terms of Accessibility for Persons with Disabilities by Paul T. Jaeger (2006) has managed to explore a comprehensive, user-centered assessment of the accessibility of United States' federal e-government websites in terms of its compliance with the legally mandated accessibility standards of Section 508. By referring to this specific past material, we can conclude that a universal and inclusive web design is achievable if a legal measurement is taken to urge its application to e-governments' websites. Malaysia's policymakers should consider it to mandate a specific policy and standard or revise and update the existing Persons with Disabilities Act 2008 in terms of access to information and technology for PWDs.

A set of criteria in designing a web that is accessible and usable for people with disabilities were well outlined by (W3C). W3C is a well-known international community that works interdependently to develop in making internet browsing more convenient to people with disabilities. They have provided a critical and effective framework for inclusive web design for people with disabilities namely *Web Accessibility Initiatives* (WAI). Set aside from ensuring the websites comply with WAI's recommendations, W3C has also highly recommended the implementation of the widget extensions in government websites to enhance the web browsing experience rather than creating another similar website particularly for people with disabilities since it is more economical and less hassle for maintenance. The widget extension serves as a built-in system that is implemented to every government website and its performance should be working effectively while actively updating new features from time to time based on the growth of needs addressed. The widget extension seems to be preferable as it still made the website function normally for normal users and it also can complement people with disabilities' users based on their needs. The choice is up to the users to opt for it or not.

3. RESULTS AND DISCUSSION

With the advancement of today's technology, people with disabilities are no different in benefiting from technological evolution. The accessibility apps that were built-in smartphones today regardless of Android and iOS are the best example of how developers could create inclusiveness for all users. For instance, in Android and iOS, the apps called *Accessibility* have offered the users various forms of help assistance such as talkback features, visibility, and hearing enhancement for people with disabilities. However, when it comes to *Personal Computer (PC)* users, they are a step behind as compared to what

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smartphones nowadays could offer. The non-built-in extension widget for PC users is more complicated as it requires the users to download different extensions for them to get what is offered in smartphone technology. Despite scattered widget extensions that needed to be downloaded for PC users; some website has taken their initiatives to overcome this issue through the usage of built-in widgets such as the official website of *Unit Perkhidmatan OKU (UPO) of Universiti Teknologi Mara* (UiTM) (https://upo.uitm.edu.my/). UPO has successfully portrayed that universal, yet inclusive web design is possible to achieve by every government's website. To understand in-depth, imagine the scenario of a person with visual difficulties such as dyslexic users who are always finding themselves feeling left out and frustrated reading during their e-government browsing sessions. However, with the help of a built-in extension widget such as *Accessibility* developed by *Userway.org*, it could help them to overcome the issue. The extension's features are very simple, yet very effective to people with dyslexia. Accessibility widget extension would change the default font to a specially designed font for people with dyslexia with additional features such as changing the font space, height making the web browsing more convenient and inclusive for everyone. By then we can finally ensure that this minority group can finally access the government's websites conveniently to gain information and seek help through e-government.

By applying a standardised design of widget extension tool, e-government sites will offer access to all people which will benefit the government, business, and citizens as it can reduce the administration cost, increased access, increased transparency, and increased effectiveness and efficiency (Jaeger, 2006). In terms of economic benefits, it offers longer-term benefits as it can expand the audience, improve usability under limited situations for people with disabilities and normal users alike, support a future semantic web while reducing maintenance's site (Arch, A., Letourneau, C., 2002). If a set of accessible Web pages' guidelines and checkpoints were to be provided, it can expand the business market and improve technique efficiency to a website (Zeng, 2004). Web accessibility that shows consistent design, straightforward navigation, and simplified language may benefit those with cognitive or learning disabilities like ADHDs or dyslexics. For instance, through the application of consistent design, users can easily navigate through a website while appreciating the information by familiarising themselves with the layout and structure of web pages. These people also benefit from redundant information like the audio output of a Web page. An accessible website is more flexible in which its universal design principle of the natural extension will also benefit other users who access the Web through another medium other than computers like mobile phones with small display screens (Zeng, 2004). Meanwhile, independence, trust, and confidence can be fostered as ADA's Voting Accessibility Act of 2012, indicates that online voting technologies must provide blind voters with the ability to cast their votes privately and independently while verifying it without sighted assistance that their ballots accurately reflect their voting choices.

4. CONTRIBUTION, USEFULNESS, AND COMMERCIALISATION

By implementing and standardising the built-in widget extension feature to all government sites, it can overall improve and boost Malaysia's e-government service and performance as it can cater to a wider consumer base. PWDs will find it pleasing visiting websites with fewer barriers than those that are inaccessible (Zeng, 2004). They can access the information and services directly from the government websites without depending on others to navigate them during the browsing activities. A pleasant cyber environment will have the potential to make them a returnee to the websites as they are familiar with how it works while their needs are being complemented which led to them feeling more comfortable browsing. For example, if Malaysian Electronic-Government (E-Government) MSC Flagship Application, or known as MyEG (https://www.myeg.com.my) integrated the built-in widget extension to their websites, people with disabilities would feel at ease browsing while feeling confident with their ability in finding trustable information and services. Fostering trust for PWD to utilise the e-government by making the web accessible is vital to eliminate their worries on whether the information and services they found are trustable or the opposite. This can be deemed as empowering as it encourages PWD to actively utilise cyberspace in whatever they do. Be it applying forms to renewing their contracts and paying bills online.

Similarly, to how public facilities must comply with the Malaysia Standard MS 1184: Code of Practice on Access for Disabled Persons to Buildings, the government too should start outlining the guideline of how governmental portals should be designed and operated to promote inclusivity. The framework can become a guideline for all government web. It can guide how a website should work, be designed, and operated based on the local community and government's standards. It can be urged to through creating a policy that protects the rights of PWD just like how the United States' Section 508 of Rehabilitation Act created and functioned, encouraging the PWD's right to equal access to information and services online. By taking this to a more serious level through policymaking, the government will have no choice but to adhere to the policy created. This will encourage inclusiveness by adopting the built-in widget extension for all Malaysia's government websites through policy implementation or legislating a law about it.

Moreover, through active implementation of the widget extension tool to all existing government websites, it will have the ability to change the browsing activity dynamics and the local culture of web designing to be more inclusive and universal. Surely it can influence the local private websites to follow the trend. For instance, if all the government's portals implemented the widget extension tool, it will bring awareness to the future investors to follow as they realised that a universal and inclusive web design, can benefit them as they may be able to create more revenue, establish loyal or returnee customer while reaching various and wider consumer groups. This is due to their web being accessible by more people instead of limited to only the 'normal' consumers. Eventually, this will have the potential to be commercialised as it creates job demand in the *Information and Communication Technologies (ICT)* field as these investors will need to hire local talents to help them build their accessible websites. While it can be transformed to be the government's business capital by providing training, and resources to investors in assisting them to create accessible websites, the government has become one of the first figures of encouraging web accessibility thus opening more opportunities for research and design, and collaborations.

5. CONCLUSION

In conclusion, to solve the issue of PWD in e-government, an inclusive, universal, and standardised widget extension is needed. Hence, the inspiration to opt for OK4U's initiative. However, a thorough study on the idea is still needed as it is still in the preliminary work of recommendation. A thorough survey should be held in the future specifically for Malaysian PWD users to listen to their needs while being attentive to their wellbeing in the online space. This can empower them into the democratic process of the government while giving them space to narrate their browsing activities. In hope from this, may it empower, build faith, and increase the involvement of PWD in e-government as they are worthy of the society too.

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