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WEB CONTENT ACCESSIBILITY GUIDELINES- THE NEED OF AN HOUR

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INTRODUCTION

Web content accessibility guidelines are the set of guidelines which make any information and data on the internet network easily accessible to the differently able persons[1]. It is an important tool in improvising the digital-experience and user-interface[2] of a wide variety of audience. These guidelines target a wide variety of persons, namely differently able persons which include cognitive, visual, auditory disabilities and many more[3] The Accessibility Guidelines are not limited but extend to marketing staff, managers, web content authors and developers.[4] Thus WCAG influences the World Wide Web Consortium (W3C) to make any web content usable by all groups.[5] Web content accessibility (WCA) is a subset of universal accessibility. On the one hand, universal accessibility aims at making all spheres usable conveniently by all the societal sections;[6] however, on the other hand, WCA aims at the technical sphere of universal accessibility. WCA is a broad discipline that ranges from availability of internet, use of language to designing of a website. Facilitating the usability of web content is the main aim of WCAG. Definition of usability is ambiguous in different studies, thus the concept is ambiguous[7] without a common agreement.[8] Some define usability as user-friendliness which builds user's skills, productivity and efficiency.[9]

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[1] Frank Edgerton Martin, *Integrating Accessibility*,Vol.89, ASLA, 66-69,66

[2] Adream Blair and Mike Zender, Interaction Design Research in Human- Computer Interaction, Vol.24, MIT Press, p.85

[3] Carey Curtis and Jan Scheurer, Performance measures for public transport accessibility: Learning from International Practice, Vol.10, JTLU, 97.

[4] Catherine M. Brys and Wim Vanderbauwhede, Communication Challenges in the WC3's Web Content Accessibility Guidelines, Vol.53, No.1, STC, p.60

[5] *Ibid.*

[6] *Id. at 3*

[7] Green D & Pearson J. M., *Development of a Website Usability Instrument based on ISO 9241-11.* Vol. 47(1), The Journal of Computer Information System, p.66–72

[8] Sindhuja, P. N., & Dastidar*, Impact of the factors influencing website usability on user satisfaction*, Vol. 8(12), The IUP Journal of Management Research, p. 54.

[9] PRESSMAN.R, SOFTWARE ENGINEERING: A PRACTITIONER'S APPROACH (Boston: McGraw-Hill 2001)

Usability targets the entire economy. It includes every part of a business or a trading chain. The rest also define usability as the user's interaction and experience while using web content. Usability plays a pivotal role in determining the customer's reactionand business outcome. This can also play an important role in deciding the global economy.

HASSLES AND DIFFICULTIES FOR ACCESS TO WEB CONTENT

Innumerous hassles and difficulties are involved in implementing WCAG, this is one of the reasons that it is not implemented.[10] The information/data on the web that needs to be accessible is a huge chunk which cannot be easily organized in the first place.[11] Further, this huge chunk of information requires screening, assessment and evaluation to be well organized.[12] Implementing the WCAG with regard to this is a hassle. This task is an expensive and time-consuming process.[13] Secondly, the implementation of WCAG is a global initiative. Being a cross bordered guideline;[14] the implementation of WCAG is across various cultures and ethnicities.[15] Cultural and ethnic differences worsen the chances for implementation of WCAG.[16] Lastly, web designingis a cumbersome and complicated process which requires in-depth knowledge.[17] [18] Lack of expertweb developers and analysts leads to poor quality e-products which leads to poor virtual accessibility.[19]

A LEGAL PERSPECTIVE FOR WCAG

The United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) is a convention that was adopted on 13th December 2006. This Convention marked a paraganm from treating differently able members as inanimate materials to dignified individuals.[20]

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[10] Milne, S., Dickinson et al., (2005). Are gu*idelines enough? An introduction to designing web sites accessible to older people*, Vol. 44(3), IBM Systems Journal, p. 567.

[11] Russell Williams and Rulzion Rattray, *UK hotel web page accessibility for disabled and challenged users,* Vol 5(3), Sage Publications, p.256.

[12] *Ibid.*

[13] *Id.* at 11.

[14] Jean-Claude Usunier et al., *Cultural, National and Industry- Level Differences in B2B Web Site Design and Content*, Vol. 14, International Journal of Electronic Commerce, p.42.

[15] *Ibid.*

[16] *Id* at 14.

[17] Erica B. Lilly and Connie Van Fleet, *Measuring the Accessibility of Public Library Home Pages,* Vol.40, Reference & User Services Quarterly, p.157.

[18] Heidi L. Everett, *Consistency & Contrast: A Content Analysis of Web Design Instruction*, Vol. 61,Technical Communication, p.247

[19] *Id.* at 17.

[20] Pooja singh, *Persons with Disabilities and Economic Inequalities in India,* Vol.44, No.2, Indian Anthropological Association,p.65.

The convention is a mark to ensure web equality by introducing small changes in structural designs of websites.[21] The recognition of human rights to persons with disability was significantly on the rise post this convention.[22] In this regard, the United Kingdom agreed to uphold human rights of the disabled[23] which includes creating an inclusive education setup, building independent lives for disabled persons[24] and eliminating any form of discrimination against the PWDs (Persons with Disabilities).[25] Article 32 of the UNCRPD facilitates for providing technical and economic assistance including the access to assistive and accessible technologies.[26] Article 253 of the Indian Constitution also confers legislative functions to the parliament in order to make laws implementing treaties and conventions.[27] Approximately 163 countries are signatories to the UNCRPD. The implementation of WCAG is thus implied through the UNCRPD.

WCAG AND ECONOMY

The paper emphasizes the importance of usability. Usability is a pivotal role in regulating the financial gain or loss of an institution.[28] [29] It all starts from the idea of implementing a venture.[30] The web-designers must start by evaluating the user-experience.[31] Even though usability does not play a direct role in the economy, it ripples its effect on the economy.[32] For any economy, costumer is the end of business-chain.[33] Customer satisfaction is enhanced by easy and convenient usability. Poor usability leads to anxiety in the customers who use it.[34] Anxious customers are often to turn away from the websites and they will finally rely on their competitor's websites.[35] The better access in web leads to a greater customer base.[36] Every

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[21] Chapter 3, JONATHAN LAZAR AND MICHAEL ASHLEY STEIN, DISABILITY, HUMAN RIGHTS, AND INFORMATION TECHNOLOGY, p.42, (University of Pennsylvania Press 2017)

[22] *Ibid.*

[23] EQUALITY AND HUMAN RIGHTS COMMISSION, https://www.equalityhumanrights.com/en/our-human-rights-work/monitoring-and-promoting-un-treaties/un-convention-rights-persons-disabilities, last visited on 23.12.2021.

[24] HOUSE OF COMMONS LIBRARY, https://commonslibrary.parliament.uk/research-briefings/cbp-7367/ , last visited on 23.12.2021.

[25] *Ibid.*

[28] Anthony S. Chow et al., *The Website Design and Usability of US Academic and Public Libraries: Findings from a Nationwide Study,* Vol.53, Reference and User Services Quaterly, 1-13, p.2.

[29] Nicholas C. Romano, *Customer Relationship Management for the Web-Access Challenged: Inaccessibility of fortune 250 Business Web Site,* Vol.7, No.2,IJEC, p.87.

[30] *Supra.* at 18.

[31] *Ibid.*

[32] *Id.* at 26

[33] *Id.* at 27.

[34] *Id* at 26.

[35] Cappel . J & Huang Z, *A usability analysis of company websites,* Vol. 48(1), The Journal of Computer Information Systems, p.117–123.

business is capitalistic, but the prime motive of profit is lost in the business due to undeveloped web-engineering.[37] This can be a great threat to any countries economy in terms of Economic Indices, Gross Domestic Product and other economic indicators. The United States economy loses around $39 billion every year due to inadequate web-engineering methods.[38] Lack of web content accessibility leads to incomplete transactions and inability to locate the desired icons causing loss to business oriented firms.[39] On the other hand, those businesses categorized with well designed, simple and efficient websites have seen increased financial profits owing to their large customer base, increased sales and positive shopping experience.[40] This is because implementation of WCAG leads to inclusivity of all sections in the globe.[41] It is seen that consistency and standards of a website with aesthetics and easy to operate, witness a large economic profit.[42] Better speeds, easy navigation, relevance and quality of business virtual environment indicate the success of the business and its rippling effect is seen on the respective economy.[43]

WCAG AND VISUALLY IMPAIRED PERSONS

The WCAG has a greater implication on differently able persons because loss of any sense implies many challenges in their life.[44] Carrying out day to day activities devoid of a sense organ leads to a complicated life. The rising tide of technologies has thrown both positive and negative implications on the lives of PWDs.[45] The resurgence of assistive technology has enabled several software programmes like Text to speech (TTS),[46] voiceovers and JAWS to enable user friendliness to the blind or visually impaired persons.[47] However, the websites launched lack a sense of accessibility for these PWDs.[48] For instance, a trading platform like KITE App in India,

[36] *Id* at 27.

[37] *Supra* note at 29.

[38] Tarafdar M & Zhang. J, *Analyzing the influence of web site design parameters on web site usability*, Vol. 18(4), Information Resource Management Journal, p.62–80.

[39] *Supra* note at 26.

[40] Christian Wagner and Ann Majchrzak, *Enabling Customer-Centricity Using Wikis and the Wiki Way,* Vol.23, JMIS, p.27.

[41] *Ibid.*

[42] *Id.* at 35.

[43] *Supra.* note at 29.

[44] *Supra* note at 1.

[45] WORLD HEALTH ORGANISATION, https://www.who.int/news-room/fact-sheets/detail/assistive-technology, Last visited on 23.12.2021.

[46] Tammy Conard-Salvo and John M. Spartz, *Listening to Revise: What a Study about Text-to-Speech SoftwareTaught Us about Students' Expectations for Technology Use in the Writing Center,* Vol.32, No.2, 44.

[47] *Ibid.*

introduced a visually impaired friendly version.[49] The application could handles problem pertaining to navigation on the web page and laid down special provisions for an easy accounting process for the visually impaired.[50] However does not allow access to view the trading charts for equity shares and it also inhibits buying and selling options for blind. The trading company may not be at fault but it becomes significant that the app is made accessible for the blind in the light of universal accessibility and we equality.[51] The difficulty can be overcome by involving special hand gestures to swipe,[52] such that accidental buying/ selling of shares do not occur. Now, for instance, a bike taxi app called Rapido launched its blind friendly version[53] but is not accessible because there is no support system of text to speech to locate the driver. The same with food delivery applications like Zomato and Swiggy; Swiggy introduced a visually impaired version of the application,[54] however, it does not provide a special mechanism for blind to locate their driver. These difficulties undermine the success of the differently able. This paper tries to establish that differently able persons are fettered through the inaccessible applications and software on the web. The paper only establishes a few instance, however, the difficulties extend to a greater extent.

CONCLUSION

Implementation of WCAG effectively will lead a better inclusive lifestyle for capitalist and socialist countries. It can be safely said so because, more profit is generated for the economy and it also aims at an indiscriminate and inclusive virtual environment.[55] The successful implementation of WCAG requires a panel of experts in the field of web-content[56] and web-

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[48] WEB ACCESSIBILTY INITIATIVE, https://www.w3.org/WAI/fundamentals/accessibility-intro/ (last visited on 23.12.2021).

[49] ZERODHA, https://support.zerodha.com/category/account-opening/offline-account-opening/articles/account-opening-visually-impaired (last visited on 23.12.2021).

[50] *Ibid.*

[51] *Supra* note at 21.

[52] Supra note at 11.

[53] BIKE TAXI APP RAPIDO TO LAUNCH NEW FEATURES FOR VISUALLY-CHALLENGED COMMUTERS, https://www.thehindubusinessline.com/info-tech/bike-taxi-app-rapido-to-launch-new-features-for-visually-challenged-commuters/article25057002.ece (last visited on 22.12.2021)

[54] BUSINESS STANDARD, https://www.business-standard.com/article/companies/swiggy-makes-its-platform-accessible-to-indians-with-visual-impairment-121120301349_1.html (last visited on 21.12.2021).

[55] *Supra* note at 26.

[56] *Supra* note at 4.

development who can analyze and evaluate the existing applications. The panel can further evaluate the existing problems, analyze them and implement the needs that arise from their research and field work. The seriousness of this implementation can be fostered by adopting a Web Content Accessibility Index (WCAI) in every country so that the Index signifies the growth of Web Content Accessibility in a particular country. The panel can also keep in mind to include more keyboard shortcuts/inputs to facilitate navigation in websites and virtual environment.[57] In this regard, the Indian Legislature may also introduce statutes for web-designing and mandate a part of WCAG in order to bring in universal accessibility in India.[58] Further, awareness on Universal accessibility and web-content accessibility is the need of the hour. There is a need to emphasise on the significance of web content accessibility and its benefits. The developers might have to also make a software run through by empathizing and understanding the applications from the perspective of a differently abled person. They must also emphasise that it benefits not only the differently abled persons but enables easy access to information on the web.Further, WCAG workshops can be conducted with audience eyes/ears closed to help realize the difficulties a PWD would go through. There is a constant need to recognize Web accessibility as a legal right for all persons.[59] The tedious task will surely bring a long lasting and effective difference in the lives of persons with disabilities.[60] Last of all, implementation of WCAG must be taken seriously, as lack of WCA is a factor for undermining the confidence and self-dependency of the differently abled persons. There must be a constant strive to establish that 'accessible design' is the 'best usable design'.

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[57] *Supra* note at 29.

[58] *Supra* note at 6.

[59] Chapter 3, JONATHAN LAZAR AND MICHAEL ASHLEY STEIN, DISABILITY, HUMAN RIGHTS, AND INFORMATION TECHNOLOGY, p.42, (University of Pennsylvania Press 2017)

[60] *Ibid*