

## Implementing Web Content Accessibility Guidelines for Disability-Friendly Scholarship Websites in Indonesia

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### ABSTRACT

**Background:** The low level of disability education is currently a public concern. One way to improve it is to provide financial assistance in education. Seeing this phenomenon, the ministries established two special scholarships for people with disabilities: the ADik scholarship, administered by the Ministry of Higher Education, Science, and Technology (Kemdiktisaintek), and the LPDP Affirmation Scholarship, administered by the Ministry of Finance (Kemenkeu). These scholarships can be accessed through the websites of both ministries. However, to target these scholarships effectively, the government's public relations (PR) must ensure the website meets the technological and information needs of people with disabilities. Accommodating this information and technology is a form of good e-government. **Purpose:** This study aims to evaluate the accessibility of scholarship websites for people with disabilities by analyzing accessibility components using four assessment tools: SiteAnalyzer, AEL Data, Accessibility Cloud, and Silktide Accessibility Checker. It explains how well these government websites comply with Web Content Accessibility Guidelines (WCAG) and whether they adequately support users with disabilities in accessing scholarship information. **Result:** Based on the analysis of the four tools, neither scholarship website is fully accessible, showing significant WCAG violations. The SiteAnalyzer classified both as "unsafe," while Silktide found 394 violations on LPDP and 152 on ADik across WCAG Levels A, AA, and AAA. These extensive failures to meet accessibility criteria indicate a deficit in the Digital Public Relations function, specifically in upholding the principles of communication accountability and transparency toward the disability public. **Implication:** Technology and information that are not properly accommodated compromise the scholarship's objective and hinder the right to equal access for persons with disabilities. This highlights the urgent necessity for PR professionals to take a strategic role in advocating for and prioritizing comprehensive WCAG implementation to mitigate institutional risk, build trust, and ensure inclusive public service delivery.

**Keywords:** Accessibility; disabilities; digital public relations; content; scholarship

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## INTRODUCTION

In the last few decades, the phenomenon of low education of people with disabilities in Indonesia has become a public concern. According to the Ministry of National Development Planning (Bappenas) report, the education of persons with disabilities is still far from the “9-year compulsory education.” The educational attainment of persons with disabilities in Indonesia is dominated by “primary school graduation,” followed by “not graduated from primary school” (Yulaswati et al., 2021).

According to the 2024 Educational Statistics Report by the Indonesian Central Bureau of Statistics (Badan Pusat Statistik), 17.85% of individuals with disabilities aged five and above in Indonesia have never received formal education, compared to only 5.04% among the non-disabled population. This disparity becomes more evident when examining the highest level of education attained. A total of 4.51% of individuals with disabilities have never attended school, 12.04% did not complete elementary school, 31.66% hold only an elementary school diploma or its equivalent, 24.03% have a junior high school diploma, 22.17% have a senior high school or vocational school diploma, and only 5.58% have pursued higher education at the university

level (Badan Pusat Statistik, 2024).

Education for persons with disabilities is not only a national issue but also a global agenda outlined in the Sustainable Development Goals (SDGs). SDG fourth emphasizes inclusive and equitable quality education for all, including individuals with disabilities, while SDG 10 focuses on reducing inequalities, particularly in access to educational services. According to a UNESCO report, many developing countries still present significant barriers to education for persons with disabilities. These challenges include inaccessible infrastructure, limited access to assistive technology, and a shortage of trained educators who can meet their needs (UNESCO, 2023).

Several countries have successfully implemented inclusive education policies with more advanced approaches. For instance, Finland has adopted an inclusive education model that integrates persons with disabilities into regular schools, supported by specialized educators and access to advanced assistive technologies (Guru Berdaya, 2025). Japan has also implemented the Special Needs Education policy, which allows individuals with disabilities to receive education tailored to their specific needs through adaptive curricula and assistive technology (Stevens, 2013). Meanwhile, in the United States, the Individuals with Disabilities Education Act (IDEA) ensures the right to

education for persons with disabilities through a funding scheme that supports comprehensive special education services (U.S. Department of Education, 2020). These policy models can serve as references for Indonesia in developing a more inclusive approach to ensure equitable and high-quality education for persons with disabilities.

Based on this data, serious attention needs to be paid to various parties, including the government. The low level of education of people with disabilities has encouraged various institutions to begin to show commitment to improving disability education through special scholarships. One of the institutions in Indonesia responsible for education financing is the Center for Higher Education Financing and Assessment (Pusat Pembiayaan dan Asesmen Pendidikan Tinggi, PPAPT) under the Indonesian Ministry of Higher Education, Science, and Technology (Kemdiktisaintek). PPAPT administers the ADik (Afirmasi Pendidikan Tinggi) Disability scholarship for people with disabilities.

This disability scholarship is managed by the Endowment Fund for Education Agency (LPDP) and has scholarships for people with disabilities in the affirmation program. LPDP is a government institution with many scholarship programs, including a unique disability affirmation scholarship program. By managing endowment funds, LPDP aims to prepare people

with disabilities to be professionals and capable leaders.

There are differences between the two scholarships in terms of purpose, programs, and targeted disabilities. The ADik scholarship supports undergraduate programs, and the targeted disabilities include sensory, physical, intellectual, and mental. Meanwhile, LPDP provides scholarships for people with disabilities who want to continue their master's and doctoral education. The intended disabilities are almost the same as the ADik scholarship, but LPDP adds the type of disability, namely, double or multiple disabilities. This means that LPDP opens opportunities for people with one or more disabilities.

Providing educational scholarships for people with disabilities will not be practical if access to information and its dissemination are not aligned. Therefore, the role of government public relations in conveying this information to the public is crucial. They must ensure that information that is the public's right is adequately conveyed in this fast-changing environment of information and technology (ICT). This commitment to accessible communication channels is a core function of Digital Public Relations (PR) in the e-government era. It focuses on maximizing performance and ensuring messages reach all segments of the public, including persons with disabilities.

This is in line with Law No. 8/2016, articles 122, 123, and 124, which state that the government is obliged to facilitate communication, guarantee access to information, and provide information that is affordable and understandable to persons with disabilities (Amaliah et al., 2023). Access to and proper delivery of information are required for good e-governance. Therefore, PR spearheads government institutions in demonstrating their commitment to upholding the principles of transparency, accountability, and public service. In this context, implementing the Web Content Accessibility Guidelines (WCAG) is not merely a technical compliance issue, but a strategic imperative and an ethical responsibility for PR professionals to ensure universal communication access. Failure to meet WCAG standards constitutes a direct failure to uphold the PR function of public accountability (Aribisala et al., 2023).

Although these programs have been designed to support vulnerable groups, the accessibility of scholarship provider websites is often not a primary focus. In fact, ease of access to information through disability-friendly websites is crucial in ensuring equal opportunities for all prospective scholarship recipients. Currently, discussions on affirmative scholarships such as ADik and LPDP remain separate from the issue of website accessibility, making the

urgency of evaluating information accessibility less apparent. This research, therefore, bridges this gap by evaluating website accessibility through the lens of PR and e-governance. This study posits that accessibility is a foundational element of inclusive communication and institutional credibility.

The principle of transparency here means clear, accurate, and open access to information about government, policies, development, and implementation (Cruz Romero, 2023). Transparency goes hand in hand with accountability, where the disclosure of information is a form of responsibility in managing public resources. Accountability plays a significant role in governance, particularly in public monitoring and service delivery (Wijaya et al., 2024). Lastly, public service has many definitions, but it serves the public and fulfills needs. These three important principles must be implemented to achieve effective e-governance. The existence of this scholarship website is an example of e-governance that must be continuously improved as a strategic tool to meet the need for information transparency and responsiveness. Also, improving the quality of government information and technology is a form of accountability, which indicates that the government is responsible for its decisions and actions (Rodríguez-Navas et al., 2021).

When delivering information to people

with disabilities, it is important to have a shared conceptual understanding that access to information should be innovative and accommodate all forms of disability (Mutia & Cahyani, 2021). Access to this information is through manual and electronic documents, information channels, and the ways in which information is organized and presented. Therefore, assistive technology is necessary. According to Raja (2016), these assistive devices may help blind people hear information repeatedly, read documents in braille, adjust screen brightness, and perform text-to-speech. Assistive devices can take the form of captions/subtitles in videos, tool control via eye movements (eye gaze), and so on.

Assistive technology and information are important to accommodate, as ICT helps people with disabilities access and reduce technological barriers while providing an engaging experience for all (non-disabled) (Jackson et al., 2025). In developing IT relevant to the needs of people with disabilities, the government PR must understand the needs and obstacles they will encounter when accessing information. There are no absolute rules in technology and information guidelines for people with disabilities (Long & Siu, 2023). In the development of IT in Indonesia, of course, there needs to be guidelines that align with and fulfill the needs of people with

disabilities in accessing information. However, until now, Indonesia has no rules or guidelines for developing inclusive technology and information (Poerwanti et al., 2024). Therefore, in this research, the researchers try to use some absolute guidelines that continue to be developed by the international community, one of which is the World Wide Web Consortium (W3C).

Website accessibility plays a vital role in enhancing the participation of persons with disabilities in scholarship programs. When websites fail to meet accessibility standards, they can create substantial obstacles that prevent individuals with disabilities from accessing crucial information, including scholarship opportunities. The WCAG, developed by the W3C, serves as a framework for making online content more accessible to people with diverse disabilities, including visual, hearing, and cognitive impairments (Bondok et al., 2024). To make information truly accessible, websites and digital platforms must be designed and developed so that users with disabilities can perceive, navigate, and interact with them efficiently. Established in 2008, the WCAG remains the most widely recognized international standard for promoting web accessibility (W3C, 2008).

The W3C created the WCAG to promote greater inclusivity in the digital world. W3C develops standards for web page style, content,

and design. To define web content that is more accessible to people with disabilities. Accessibility involves various disabilities, including visual, auditory, physical, speech, cognitive, language, learning, and neurological disabilities. It is important to understand that W3C is not an absolute rule in the development of digital information, but rather an organization that guides anyone (Sikder, 2015), including governments, who want to demonstrate seriousness in creating an inclusive environment.

WCAG was first created on May 5, 1999, as WCAG 1.0, which focused only on HTML. This was the first step in making websites and digital technology accessible (Sims, 2017). The development of WCAG lasted for a very long time; it began to change in December 2008, and the W3C then developed a new version, WCAG 2.0. Then, over the last decade, the W3C continued to develop the WCAG 2.2 guidelines. The W3C has created WCAG 2.0, 2.1, and 2.2 to better align with current information and technology needs. Therefore, these guidelines can serve as a standard for scholarship provider websites to ensure the information they provide is precise and effective.

Not only WCAG, but in 2005, there was a law in Canada called AODA (Accessibility for Ontarians with Disabilities Act). This law helps remove barriers to information access for people

with disabilities. In this law, five standards can help to address the barriers for people with disabilities in accessing information, namely customer service, information and communication, transportation, employment, and design of public spaces. This law has become a widely used foundation for several public spaces, including digital spaces, in several countries, but it has not yet been implemented in Indonesia. Some accessibility checker tools have made AODA a standard, including AEL Data.

In Indonesia, although scholarship programs such as the ADiK and LPDP are designed for individuals with disabilities, accessing information about them remains a challenge. One of the main reasons is the low accessibility of websites that provide such information. Research indicates that many government websites in Indonesia do not comply with the WCAG, making it difficult for people with disabilities to obtain the necessary information (Fithriyaningrum et al., 2021).

Additionally, studies have revealed that many websites in Indonesia have yet to implement WCAG standards, creating barriers for users with disabilities in accessing digital content. These barriers directly affect individuals with disabilities' ability to access scholarship information, ultimately reducing their opportunities to pursue higher education

(Lestari et al., 2024). Scholarship providers must ensure their websites comply with WCAG 2.2 to eliminate barriers for individuals with disabilities and promote equal opportunities in higher education in Indonesia. Accessible digital platforms play a crucial role in ensuring that scholarship information reaches all eligible applicants without exclusion.

This study evaluates the accessibility of the ADik Disability program by Kemendikbudristek and the LPDP Disability Scholarship, using WCAG 2.2. The evaluation focuses on how well these websites provide inclusive access for individuals with disabilities, ensuring they can obtain necessary scholarship information without obstacles. Additionally, this study examines the role of PR in managing and communicating accessibility features on these platforms.

The research assesses accessibility based on three key principles: transparency, effectiveness, and accountability. By analyzing these scholarship websites using WCAG 2.2, this study aims to identify accessibility gaps and provide recommendations for improvement. Ultimately, the research seeks to contribute to a more inclusive higher education system that guarantees equal opportunities for individuals with disabilities.

## RESEARCH METHOD

In this study, the researchers used a qualitative content analysis approach. The content analysis method is an objective, systematic, and descriptive technique (Liauw, 2022). Through this content analysis, the researchers examine the content presented and how well the scholarship websites of LPDP and the ADik scholarships comply with WCAG guidelines. To ensure analysis results are accurate and precise, researchers use several evaluation tools (Fithriyaningrum et al., 2021). In this study, several tools were used to evaluate the LPDP and ADik scholarship websites: SiteAnalyzer, AEL Data, Accessibility Cloud, and Silktide Accessibility Checker.

Website usability and accessibility measurement results were collected from SiteAnalyzer, an online website analysis tool that applies common testing techniques to generate scores for Search Engine Optimization (SEO), content, design, performance, and accessibility. The purpose of search engines is to make it easier for users to find websites. A higher SEO score indicates that a website contains words and phrases relevant to the keywords used to find it. A higher content value indicates that the web page information is of higher quality, as measured by keyword variation and repetition. Optimizing both values ensures the website

**Table 1 List of Websites to Analyze**

No	Ministry/Institution	Website
1	Ministry of Finance/LPDP	<a href="https://lpdp.kemenkeu.go.id/">https://lpdp.kemenkeu.go.id/</a>
2	Ministry of Higher Education, Science, and Technology/PPAPT	<a href="https://adik.kemdiktisaintek.go.id/">https://adik.kemdiktisaintek.go.id/</a>

Source: Researchers Data, 2025

appears more often in search results. The design value describes the quality of the webpage layout and the uniformity of its structure, which are relevant to the website’s compatibility across different devices. The accessibility score describes how easily users can access and use the website. The accessibility cloud is used to check accessibility issues related to broken pages and links, test websites, and evaluate website compliance with WCAG and AODA.

The researchers also use the Silktide Accessibility Checker to scan for accessibility issues, including text, alt tags, and content. Unlike the accessibility cloud, this checker browser is guided by WCAG 2.2. The 2.2 guideline comprises twelve guidelines organized into four principles (W3C, 2024). These principles are that content should be perceivable, operable, understandable, and robust (Zdravkova et al., 2022). These four principles inform the following twelve guidelines. They cover alternative formats, keyboard accessibility, content readability, and functionality across multiple devices. Each guideline has many Success Criteria (SC). Each

SC has a compliance level: A, AA, or AAA (Alim, 2021).

These levels can prioritize areas that need to be addressed first (at level A initially) and then gradually reduce barriers for a broader range of users. The levels include: WCAG 2.2 Level A consists of 30 success criteria. This number is unchanged from the previous WCAG level (2.1); WCAG 2.2 Level AA consists of 58 success criteria. Eight additional aspects complement the 50 SCs in the previous WCAG 2.1 level (AA); 3) WCAG 2.2 Level AAA consists of 78 success criteria. There are 9 additional WCAG 2.1 level AAA criteria, bringing the total to 69. WCAG 2.2 standard levels A, AA, and AAA were obtained using the Silktide Accessibility Checker. Using various tools to evaluate the two websites is expected to yield more accurate and valid results. Table 1 are the two websites to be examined in this study. Table 1 presents the scholarship websites analyzed in this study, representing two major government institutions responsible for national scholarship programs in Indonesia: the Ministry of Finance through LPDP (<https://lpdp.kemenkeu.go.id/>) and the

Ministry of Education and Culture through Puslapdik for the ADik program (<https://adik.kemdikbud.go.id>). These websites were selected because they serve as official public portals with broad access for scholarship applicants, including persons with disabilities, making them relevant objects for evaluating compliance with the Web Content Accessibility Guidelines (WCAG) in the context of disability-friendly digital services.

## RESULTS AND DISCUSSION

LPDP and PPAPT (ADiK) are two institutions under different ministries that provide scholarships for people with disabilities. Both have websites that provide information on these scholarships, including guidelines and registration requirements. It is necessary to ensure that both websites comply with WCAG standards. Both of them are still committing accessibility violations.

Web accessibility is the ability of all people, particularly people with disabilities and older adults, to use websites in various contexts, including both mainstream and assistive technologies. To achieve this, websites must be designed and developed to ensure usability across these contexts (Droutsas et al., 2025). The web serves as a vital platform for public information, education, employment,

governance, commerce, health, entertainment, and many other aspects of daily life. Every individual, regardless of ability, has the right to access it. Imagine losing countless potential customers simply because your competitor offers a website that is easier to use and WCAG-compliant (Filipe et al., 2023).

Ensuring website accessibility is vital for the government PR, as it builds institutional trust and enhances a positive image by demonstrating a commitment to social equity. Conversely, poor accessibility can lead to reputational damage, similar to losing potential customers in the private sector. This definition is adopted because it aligns with inclusive design principles that seek to accommodate population diversity and emphasize designing for user accessibility rather than the opposite. Moreover, it helps address inconsistencies in accessibility-related terminology by providing a common framework for discussing issues, past approaches, and potential solutions.

To accommodate users with cognitive challenges, the W3C Web Accessibility Initiative (WAI) developed the WCAG. These guidelines aim to make web pages perceivable, operable, understandable, and robust. Common accessibility issues include missing alternative text for images, poor text-to-background contrast, overly complex wording, limited use of relevant keywords, and

**Table 2 Results of SiteAnalyzer Analysis on LPDP and ADik Websites**

Element	Website	
	LPDP	ADik
SEO	80.1	52.6
Content	47.1	49.3
Design	72.1	78.3
Performance	40.2	61
Accessibility	86.8	58
Avg. Score	67.2	59.9

Source: Research Analysis, 2025

difficulties in navigating with a keyboard or mouse. The WCAG recommendations address these problems to ensure that individuals with disabilities can fully engage with website features. For instance, by adding alternative text to images and maintaining sufficient contrast levels to assist users with visual impairment (Singh et al., 2025).

First, the researchers used SiteAnalyzer to determine the SEO, content, performance, and accessibility value. It can be seen in Table 2.

According to SiteAnalyzer, a website is considered safe if each component achieves a minimum score of 75. Based on SiteAnalyzer analysis, neither the LPDP nor the ADik scholarship websites met this threshold, indicating they are unsafe in terms of technical performance and accessibility.

In terms of SEO, the LPDP scholarship website received a higher score, indicating that it is more easily discoverable in search engines than the ADik website. A high SEO

score suggests that the LPDP website has better keyword optimization and is more relevant to user searches. In contrast, the low SEO score of the ADik website suggests poor search optimization, which may make it difficult for potential scholarship applicants to find the necessary information.

Regarding content quality, both websites received relatively low scores, indicating that the information provided does not meet high standards. This assessment was conducted based on keyword variation and page relevance. A low content score may suggest a lack of clarity or comprehensiveness in the information presented, making it challenging for users to understand the scholarship application procedures.

In terms of design, both scholarship websites received similar scores. However, the ADik website slightly outperformed the LPDP website, particularly in page layout and structural consistency. The ADik website

**Table 3 Results of AEL Data Analysis on LPDP and ADik Websites**

Result	Website	
	LPDP	ADik
Status	No compliant (5 issues found)	No compliant (5 issues found)
Critical Issues	0	1
Serious Issues	1	36
Moderate Issues	4	36
Minor Issues	0	0
Score	85	65

Source: Research Analysis, 2025

demonstrated a more uniform and structured design, whereas the LPDP website requires improvements in layout presentation to enhance user intuitiveness. For performance, both websites received low scores, indicating poor device adaptability and suboptimal page load times. This can negatively impact user experience, particularly for individuals with disabilities who rely on assistive devices or have limited internet access.

Lastly, in terms of accessibility, the LPDP scholarship website received a higher score than the ADik website, suggesting that LPDP is more user-friendly. However, its score remains suboptimal, highlighting the need for further improvements to fully comply with the WCAG. On the other hand, the ADik website's low accessibility score suggests it is not yet fully accessible to all users, particularly individuals with disabilities who rely on assistive technologies such as screen readers or keyboard-based navigation.

Based on this analysis, recommended improvements include SEO optimization, improving content quality, redesigning for greater intuitiveness, and improving page load speed. Also, implement stricter accessibility standards to ensure that scholarship information is more inclusive and accessible to all potential beneficiaries.

From a PR standpoint, classifying both websites as "unsafe" underscores a significant failure in managing the primary digital communication channel for a targeted and vulnerable public. The low accessibility score indicates a deficit in Corporate Digital Responsibility (CDR) and creates a barrier. It is hindering the government's communication objective to reach potential scholarship recipients with disabilities.

Second, the researchers further analyzed the LPDP and ADik scholarship websites using AEL data. AEL data analyzes websites with guidance from WCAG and AODA. It can be

**Table 4 Results of Accessibility Cloud Analysis on LPDP and ADik Websites**

Component	Websites	
	LPDP	ADik
Critical	5	2
Serious	56	25
Moderate	0	0
Minor	0	0
Avg. Score	59	27

Source: Research Analysis, 2025

seen in Table 3.

Based on the table above, the test results indicate that the LPDP website is non-compliant with accessibility standards. Although no critical issues were found, the site has one serious issue and four moderate issues, resulting in an overall score of 85. This score suggests that while the LPDP website is more accessible than the ADik website, there are still aspects that need improvement to achieve full compliance with WCAG and AODA standards.

Meanwhile, the ADik website has also been found non-compliant with accessibility standards, earning a lower score of 65. The analysis results show that this website has one critical issue, 36 serious issues, and 36 moderate issues. The significantly higher number of accessibility issues on the ADik website indicates that it faces greater accessibility challenges, which can impact the user experience, particularly for people with disabilities.

Based on the analysis of both websites,

neither the LPDP nor the ADik website fully meets AEL Data’s accessibility standards. Deficiencies in accessibility compliance could create barriers for users with special needs and increase the risk of accessibility-related lawsuits under AODA regulations. Therefore, significant improvements in digital accessibility implementation are necessary to ensure that both websites are fully accessible to all user groups, including people with disabilities.

The presence of numerous critical issues on both platforms underscores the urgent need for a stronger PR role in internal counseling. PR practitioners should proactively advise management and the IT department on the severity of these issues to ensure immediate remediation, thereby fulfilling their role as strategic counselors to the institution on public policy and communication delivery.

Third, the researchers analyzed the LPDP and ADik scholarship websites using the Accessibility Cloud to identify broken pages and links, accessibility statements, and compliance

**Table 5 Results of Silktide Accessibility Checker Analysis on the LPDP and ADik Websites**

Success Criteria (SC)	Disability affected by violations	WCAG Website Criteria Violated	
		LPDP	ADik
Link	Visual & Motor	<ul style="list-style-type: none"> <li>• 1.4.1 Use of Color</li> <li>• 2.4.4 Link Purpose (In context)</li> <li>• 3.2.5 Change on request</li> </ul>	<ul style="list-style-type: none"> <li>• 1.4.1 Use of Color</li> <li>• 2.4.4 Link Purpose (In context)</li> <li>• 4.1.2 Name, role, value</li> <li>• 2.4.9 Link Purpose (Link only)</li> <li>• 3.2.5 Change on request</li> </ul>
Colors and Contrast	Visual	1.4.3 Contrast (Minimum)	<ul style="list-style-type: none"> <li>• 1.4.3 Contrast (Minimum)</li> <li>• 1.4.11 Non-text contrast</li> </ul>
Content	Visual	1.3.1 Info and Relationships	<ul style="list-style-type: none"> <li>• 1.3.1 Info and Relationships</li> <li>• 4.1.2 Name, role, venue</li> </ul>
Interactive	Visual, cognitive & motor	<ul style="list-style-type: none"> <li>• 3.3.2 Labels or instructions</li> <li>• 4.1.2 Name, role, venue</li> </ul>	<ul style="list-style-type: none"> <li>• 4.1.2 Name, role, venue</li> <li>• 1.1.1 Non-context content</li> </ul>
Headings	Cognitive and Visual	<ul style="list-style-type: none"> <li>• 2.4.6 Headings and labels</li> <li>• 1.3.1 Info and relationships</li> </ul>	2.4.6 Headings and labels
Labels	Visual	<ul style="list-style-type: none"> <li>• 1.1.1 Non-text content</li> <li>• 4.1.2 Name, role, venue</li> </ul>	<ul style="list-style-type: none"> <li>• 1.1.1 Non-text content</li> <li>• 4.1.2 Name, role, venue</li> </ul>
Layout	Visual	1.3.1: Info and Relationships	-
Audio & Video	-	-	-
Forms	-	-	-

Source: Research Analysis, 2025

targets. It can be seen in Table 4.

Based on the test results, the LPDP website recorded five critical issues and 56 serious issues, with an average score of 59. This indicates that although there are significant accessibility challenges, the LPDP website still has a higher level of accessibility than the ADik website. Meanwhile, the ADik website encountered two critical issues and 25 serious issues, with an average score of 27. This significantly lower score suggests that the ADik website faces greater barriers in digital accessibility. These barriers could negatively impact user

experience, particularly for individuals with disabilities.

Based on this analysis, neither website meets optimal accessibility standards. These shortcomings may limit access for users with physical or cognitive impairments and increase the risk of legal action for noncompliance with accessibility standards such as AODA and WCAG. The LPDP website has more serious issues than ADik; however, it still achieves a better overall accessibility score. Therefore, various improvements are needed, including enhancing compatibility with assistive

technologies, improving navigation and content structure, and providing more inclusive accessibility features. With a comprehensive improvement strategy, both websites can become more user-friendly and compliant with international digital accessibility standards.

Furthermore, the researchers analyzed the LPDP and ADik scholarship websites using the Silktide Accessibility Checker. This can conduct testing and evaluation of color contrast, image alt text, keyboard navigation, and related features, in accordance with WCAG 2.2. The results identified 394 accessibility violations on the LPDP scholarship website and 152 on the ADik scholarship website. These violations fall into the category of being inaccessible to assistive technology users or people with disabilities, not in compliance with the Americans with Disabilities Act (ADA), and at risk of legal action for violating the ADA.

Table 5 show he results of the accessibility evaluation of the LPDP and ADik websites using the Silktide Accessibility Checker. The link category requires each website to have a clear link purpose from the text or context. The LPDP website does not meet the 5 WCAG 2.2 success criteria (Levels A and AA). Violating these success criteria impacts the WCAG 2.2 principles of perceivable, operable, understandable, and robust. Violating this principle indicates that fully understanding the

content is not easy for users with disabilities, and that the website is not compatible with or adaptive to various assistive technologies. People with disabilities affected by the violation are visual and motor. The ADik website does not meet 3 WCAG 2.2 success criteria (Levels A and AA). These success criteria violate the WCAG 2.2 principles of perceivable, operable, and understandable. Violating this principle indicates that users with disabilities cannot easily see and understand the content thoroughly. People with disabilities affected by the violation are visual. Based on the link criteria, the LPDP and ADik scholarship websites do not meet the success criteria for links. This means the site's pages fail to explain the explicit purpose of the text links.

The colors and contrast category requires that the web page's visual design be legible and accessible to people with low vision or color blindness. The LPDP website does not meet 2 WCAG 2.2 (Level A) success criteria, and the ADik website does not meet 1 WCAG 2.2 (Level A) success criteria. Violating this success criterion affects the WCAG 2.2 principle of perceivable. Violations of this principle indicate that users with disabilities do not readily see information and user interface components. People with disabilities affected by the violation are visual. Based on these results, the LPDP and ADik scholarship websites fail to meet the color

and contrast success criterion. This means that the pages on the site fail to adjust the brightness between the foreground and background colors on the web page.

The content category requires the website to include text, images, and multimedia to provide a meaningful user experience. The LPDP website does not meet 2 WCAG 2.2 success criteria (Level A), and violating these criteria undermines the WCAG 2.2 principles of robust and perceivable. Violations of this principle indicate that the website's content cannot be clearly understood and is not compatible with or adaptable to various technologies. The ADik website does not meet 1 WCAG 2.2 success criterion (Level A), and violating this success criterion impacts the WCAG 2.2 principle of permeability. Violations of this principle indicate that people with disabilities cannot clearly understand the content on the website. Based on this, the LPDP and ADik scholarship websites have not complied with the content success criteria. This means the site's pages fail to achieve maximum compatibility.

The interactive category requires the website to include buttons, forms, and other interactive elements that allow users to perform key activities, such as making purchases or submitting information. The LPDP website does not meet the two success criteria of WCAG 2.2 (Level A), and violating these criteria impacts

the WCAG 2.2 principles of perceivability and robustness. Violations of this principle indicate that the website's interactive elements cannot be clearly understood and are not compatible or adaptive across various technologies. The ADik website does not meet 2 WCAG 2.2 success criteria (Level A), and violating these criteria undermines the WCAG 2.2 principles of understandability and robustness. Violations of these principles indicate that instructions are not provided when content requires user input and that the website is not compatible with or adaptive to various technologies. People with disabilities affected by violations are visual, cognitive, and motor. Based on these results, the LPDP and ADik websites do not meet the interactive category. This means the site's interactive elements fail to achieve maximum compatibility.

The headings category requires that the website use clear and descriptive titles so users can explore web pages and navigate to the most relevant content. The LPDP website does not meet 1 WCAG 2.2 success criterion (Level AA), and this violation affects the WCAG 2.2 principle of operability. Violations of this principle indicate that users do not understand the information on web pages or how it is organized. People with disabilities affected by the violation are cognitive. The ADik website does not meet 2 WCAG 2.2 success

criteria (Levels A and AA), and violations of these success criteria impact the WCAG 2.2 principles of perceivable and operable. Violating this principle indicates that the website title cannot be clearly understood and is not easily operable by users with disabilities. People with disabilities affected by violations are visually and cognitively impaired. Based on these results, the LPDP and ADik websites have not met the requirements for the headings category. This means that the title on the website cannot explain the topic or purpose.

The labels category requires websites to include clear, descriptive text in form fields and other interactive elements to provide guidance and context for people with visual and cognitive disabilities. The LPDP and ADik websites do not meet 2 WCAG 2.2 success criteria (Level A), and violations of these success criteria impact WCAG 2.2 principles, namely perceivable and operable. Violations of this principle indicate that users have not understood the form-filling instructions and that the form is not easily operable by users with disabilities. People with disabilities affected by the violation are visual. Thus, the LPDP and ADik websites have not met the label category requirements. This means the website has not provided users with clear instructions for entering information correctly.

The layout category requires websites to arrange visual elements on web pages to provide

structure and organization. The LPDP website does not meet 1 WCAG 2.2 success criterion (Level A), and this violation impacts the WCAG 2.2 principle, namely, perceivability. Violations of this principle indicate that the layout on each web page has not made it easier for users to find the information they are looking for. People with disabilities affected by the violation are visual. While on the ADik website, there are no violations. Based on these results, the LPDP website has not fulfilled the layout category. This means the website does not have an appropriate layout for its web content.

In the audio-video, forms, and navigation categories, the LPDP and ADik websites do not commit any violations. Based on these results, the LPDP and ADik websites have met the requirements for the audio-video, forms, and navigation categories. This means the website already has dynamic content and user-input elements, allowing users to navigate between pages. Based on the 10 Success Criteria (SC) in evaluating the LPDP and ADik websites, it is concluded that the ADik website has fewer WCAG 2.2 violations of 152 issues than the LPDP of 394 issues, with the level of conformity violated, namely levels A, AA, and AAA.

These WCAG violations directly impede the right to information for persons with disabilities, which, from a PR perspective, represents a failure of the organization's

transparency and accountability principles. The high number of violations clearly signals a breakdown in the government's digital PR strategy to ensure an inclusive public service.

Based on the discussion above, it is found that all tools used to assess the accessibility of the two websites indicate violations and do not meet the needs of people with disabilities regarding technology and information accessibility. Actually, not only in Indonesia but also in many other countries, accessibility violations occur (Hafiar et al., 2022). In the United Kingdom, the rapid growth of information technology has made the accessible web a significant problem. However, they continue to improve the accessibility of the web, from university websites to health and public service information (Ismail & Kuppusamy, 2022).

This improvement is needed to promote good e-government. However, the fact is that government scholarships that target people with disabilities do not meet the technology and information guidelines that meet the needs of people with disabilities. It can be inferred that the government has not fully prioritized citizens' interests, especially those of people with disabilities, who often face challenges in achieving equal access to information (Sumartias et al., 2022). It also means that the Ministry of Finance and the Ministry of Higher Education, Science, and Technology have

failed to uphold the principles of transparency, accountability, and public service.

Even so, in improving transparency, accountability, and public service, PR can improve the scholarship website through violations that are the main first, namely in the Silktide Accessibility results, such as SC A, AA, and AAA, which these levels can be used to determine priority areas that need to be addressed first. So, it is necessary to improve SC A, and then later, PR can handle problems in the next SC.

## CONCLUSION

This study analyzed the accessibility of two Indonesian government scholarship websites, LPDP and ADik. The WCAG 2.2 framework and several testing tools, including SiteAnalyzer, AEL Data, Accessibility Cloud, and Silktide Accessibility Checker, were used. The results show that neither website fully meets the required accessibility standards for users with disabilities. Violations were found across all major WCAG principles, such as perceivable, operable, understandable, and robust.

This indicates that users with visual, cognitive, and motor impairments may face significant challenges in accessing scholarship information and navigating online forms. Among the two, the LPDP website performed better in accessibility and SEO optimization,

while the ADik website demonstrated a more consistent visual layout. However, both websites were rated “unsafe” according to SiteAnalyzer’s accessibility and performance benchmarks. These findings highlight an urgent need for improved web design, clearer content, and more interactive functionality.

From a theoretical standpoint, this study contributes to the field of digital communication accessibility. It reinforces the use of WCAG 2.2 as a practical framework for developing inclusive public information systems in developing countries. This study contributes to the field of digital communication accessibility. It specifically reinforces the Excellence Theory in PR, which emphasizes that organizations must build mutually beneficial relationships with all publics, including marginalized groups such as people with disabilities, through accessible, two-way communication.

Through multiple evaluation tools and comparing results across platforms, this research demonstrates a multidimensional approach to assessing e-government transparency and inclusivity. It also supports the theoretical perspective that accessibility extends beyond technical compliance; it is a communicative right. Making online scholarship information perceivable, operable, and understandable for all users upholds the principles of communication equality and universal design.

Thus, accessibility becomes a central element of participatory e-governance. The findings bridge communication studies and information technology, showing that compliance with digital accessibility standards enhances usability, institutional credibility, and public trust.

In practice, this research has important implications for policy and management in digital inclusion and governance. Government institutions, such as the Ministry of Finance (LPDP) and the Ministry of Higher Education, Science, and Technology (PPAPT), must adopt stricter accessibility policies aligned with WCAG 2.2 Level AA standards. Improvements should include enhanced color contrast, text alternatives for non-text content, keyboard navigation, and clear labeling for interactive forms. Implementing these changes will not only align with global accessibility norms but also promote equal access to educational opportunities for people with disabilities. Accessibility improvements should be integrated into broader e-government strategies focused on transparency, accountability, and citizen participation, particularly for marginalized groups. Regular accessibility audits and public reporting mechanisms should also be established to ensure ongoing compliance and to encourage public institutions to prioritize inclusivity in their digital communication strategies.

In a broader sense, ensuring that scholarship websites are fully accessible represents a vital step toward digital inclusion for persons with disabilities and aligns with Indonesia's commitment to the UN Convention on the Rights of Persons with Disabilities. By making these digital spaces accessible, the government not only enhances service delivery but also promotes social equity and strengthens national human capital development goals. Therefore, this study promotes that accessibility should be viewed not as a peripheral technical issue but as a strategic communication and policy priority. Enhancing accessibility in scholarship websites enables all citizens, regardless of physical or cognitive ability, to access critical educational information and opportunities. This effort fosters a more inclusive, transparent, and equitable digital environment.

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