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A Study on Web Accessibility in Public and Foundation Universities in Türkiye

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Abstract

The rapid development following the emergence of web technologies has facilitated users' access to information. The design processes of web platforms are of great importance to ensure that all users can access these platforms. Within this process, it can be said that the use of web accessibility in the field of web technologies has become a key element. In this context, the need has arisen for individuals with various disadvantages and general users to access digital platforms on equal terms. Web accessibility is not limited to the implementation of technical criteria; it is also associated with users' ability to perceive and interpret focal points through the fundamental principles of visual and cognitive psychology. In this regard, the transition of web accessibility from technical standards to the process of visual perception and interpretation offers a significant perspective through Gestalt Psychology and theory. The visual perception principles of Gestalt Psychology and theory, which are increasingly utilized in design processes, are widely used in interface designs of digital platforms and in the design of accessible websites. Web platforms prepared in accordance with Gestalt principles and WCAG 2.1 web accessibility criteria are of critical importance in being equal, accessible, and barrier-free for all users. In this context, the aim of this study is to examine the websites of universities in terms of web accessibility criteria and to determine the extent to which they comply with these criteria. The study provides information on the use of Gestalt principles and web accessibility criteria in web interface design, the importance of web accessibility, and fundamental issues related to the web. In the study, based on the Webometrics Index ranking, the websites of the foundation universities ranked among the top three and the state universities ranked among the bottom three in Türkiye were examined within the scope of 30 basic web accessibility criteria of WCAG 2.1 Level A. In this context, the web accessibility status of the universities was revealed, deficiencies were identified, and necessary recommendations were provided.

Introduction

While technological advancements have laid the groundwork for radical changes in the communication process,

they have also introduced significant innovations in the global access of individuals to news and information. Individuals and institutions have traditionally relied on face-to-face communication and the so-called conventional written, oral, and visual media tools for conveying information and conducting promotional activities. Especially in commercial structures, but also across all organizational types, communication strategies targeting customers and other audiences have been structured around these tools. In addition to employing qualified personnel for face-to-face communication, institutions have made efforts to inform their target audience, respond to their questions, and resolve their problems through printed, oral, and visual media.

In the past half-century, as people have struggled to keep pace with rapid technological development and transformation, generational digital divides have emerged in terms of technology use (Bingöl, 2024). With computers and the internet—which connects countless computers—(DiMaggio et al., 2001: 307–308; Negroponte, 1996: 153), both interpersonal and mass communication have entered a new era. In this new era, a process has begun in which individuals can communicate synchronously with sources of news and information, whether on a personal or mass scale, and despite the high number of participants, each individual acts as both a sender and receiver of messages (Manovich, 2001: 27–48; Castells, 2006: 26–27). Consequently, the activities that institutions and organizations undertake for their target audiences have also undergone change.

One of the fundamental characteristics of this new era is that in its initial stages, content produced on digital platforms became accessible to large numbers of participants. With the advent of Web 2.0, target audiences have become more actively involved in the communication process (Ariño, 2021: 344–347), transitioning from mere content recipients to content producers. Digitalization and the new structure of communication have influenced institutions and organizations on a global scale, changing how they engage with their target audiences. In this new era, nearly every institution and organization has created websites to provide information, services, and news; to communicate their activities; and to respond to questions and problems.

With the process of website creation, discussions have also begun concerning how text, sound, and visuals should be designed. In relation to this, the internationally recognized WCAG 2.1 (Web Content Accessibility Guidelines) web accessibility criteria were established to define the fundamental principles of web accessibility. Based on these criteria, the KAMİS (Public Institutions Website) Guide, developed in Türkiye, supports the implementation of WCAG 2.1 criteria (Bilgem, 2024).

The subject of this study is the websites developed by institutions and organizations within the framework of digitalization, which has emerged as a result of technological developments. This study investigates the extent to which university websites in Türkiye comply with the principles of WCAG 2.1. The approach concerning the use of Gestalt principles in website design (Kapllani & Elmimouni, 2020) constitutes the foundation of the analysis. In the study, the websites of the foundation universities included among the top three and the state universities included among the bottom three in Turkey, according to the Webometrics Index, were evaluated. The study first addresses technological developments and mass communication, then focuses on the relationship between Gestalt principles and the research topic. After examining the selected universities, the findings obtained were presented.

Technological Developments and Mass Communication

Technological developments have radically transformed all aspects of human life, particularly the field of communication. Computers and the internet, which emerged in the last quarter of the 20th century but have yielded their true outcomes in the current century, have—in this context—reduced face-to-face communication through digitalization (Tadpatrikar et al., 2021), isolated individuals within crowds, and globalized interpersonal and mass communication by turning the world into a “global village” (McLuhan, 2020). This acceleration in the processes of accessing and sharing news and information has led to the current era being referred to as the information age.

The new era has brought about a structural transformation in the field of mass communication, introducing new tools into the media landscape and laying the foundation for a binary classification of the field. The printed press, which originated centuries ago, and radio and television, which became widespread and popular in the 20th century, have come to be categorized as “traditional media,” whereas mass communication tools that broadcast over the internet and deliver digital content are now referred to as “new media” (Gorman & McLean, 2003: 185). Within this new media landscape are institutions that produce content solely in digital environments, the digitized versions of traditional media, and platforms where individuals share content via networks. One of the most significant innovations brought about by technological advancement has been social media. It has created an environment where, like institutional media organizations, individuals can produce and share content both in groups and individually.

In the new era, the content created by institutions and organizations for their target audiences—and their accompanying tools such as bulletins, newspapers, magazines, etc.—has also been digitized. Among the key characteristics of this process are automation, code conversion, variability, interactivity, opportunities for personalization, modular structure, participant-generated content, digital format, the ability to redirect within text to other media (Van Dijk, 1999: 9), and the integration of text, sound, image, and other elements. Additionally, features such as the absence of space limitations for publishing platforms, the possibility of instant and global access, the ability to collect and analyze data, and users’ freedom to access content at their convenience (Rogers & Allbritton, 1995: 177–195) are significant attributes of the new era. This period has also transformed the public sphere (Habermas, 1991: 236) and brought about a broader perspective.

Digitalization has compelled institutional media organizations to change their structures and organizational systems and to form new models of communication with their audiences. It has also completely transformed the communication channels used by institutions and organizations—especially universities—for reaching their target audiences. Written, oral, and visual media have been replaced by websites that encompass all these elements and allow target audiences to access them instantly without temporal or spatial limitations. On a global scale, almost all institutions and organizations have established websites. These websites serve to convey news and information, enhance communication between institutions/organizations and their audiences, and provide quick responses to questions and problems.

Websites have taken the place of bulletins and promotional/advertising materials in written, oral, and visual

formats published by institutions and organizations. Social media has become the substitute platform for questions and issues that target audiences once conveyed through letters, phone calls, or in-person meetings. Through this new structure, uninterrupted 24/7 service has become possible; access to large audiences has increased; real-time information sharing and responses to queries have become feasible; access to information and services has become easier; accountability has increased; savings in space, time, paper, and other resources have been achieved; service quality has improved; and a stronger sense of social responsibility has emerged. Given the significance of websites in enabling these conveniences, principles have been established regarding how websites should be designed and what features they should possess. The process of forming these principles and the extent to which universities in Türkiye adhere to them are crucial for revealing the degree to which institutional structures fulfill their social responsibilities.

Web Technologies and Gestalt Psychology

Web technologies began to gain prominence in the last quarter of the 20th century. Initially, many individuals could only access content published in digital environments, but over time these platforms became interactive, and individuals comprising the target audience of the communication process turned into active content producers. With the development of artificial intelligence, a new era has begun in the current period. Technological developments have not only increased the number of participants and rendered the process interactive but have also laid the groundwork for the establishment of certain principles in content design.

The developmental process began in 1990 with Web 1.0, which was limited to content access. With Web 2.0 in 2004, not only content access but also comments and opinions reached the target audience, and a new period commenced in which content sharing on social networks became possible. In 2010, Web 3.0 linked digital environments with language, initiating the era of keyword-based content searches. With the advent of Web 4.0 in 2016, digital platforms gained more features; user behavior started to be considered in content usage, and the content production process began to be shaped by user tendencies (Ariño, 2021; Berners-Lee, 2000: 7–25). Immediately following Web 4.0, discussions on Web 5.0 began in 2017 (Fukuyama, 2018: 47–49; Hooker, 2019), and by 2021, the transition to Web 6.0 was proposed, marking a new phase of technological development (Žižek et al., 2021).

The development of web technologies has paralleled the increase in the number of users. New technologies have attracted new users, while new users have driven technological advancements. When Web 1.0 emerged in 1990, the number of internet users worldwide was 2.6 million; by 2004, this figure had risen to 899 million. In the following years, user numbers rapidly increased—reaching 1.912 billion in 2010, 3.205 billion in 2016, and 5.347 billion in 2024 (We Are Social, 2024). In other words, in the current era, individuals with internet competency are using the internet on a global scale.

A similar trend has been observed in social media use. In 2000, when social media was just beginning to be used, there were 25 million users globally; this number reached 295 million in 2005 and rose to 937.5 million in 2010. Over the past decade, social media users have increased significantly, reaching 2.094 billion in 2015, 3.726 billion

in 2020, and 5.04 billion at the beginning of 2024. In other words, more than 66% of the world's population uses the internet, and 62.3% uses social media (Güz, 2024: 9–10; We Are Social, 2024). The parallel increase in the development of web technologies and the use of internet or social media is noteworthy. Whether technological development increased internet and social media use, whether interest in these platforms accelerated technological advancement, or whether there was a mutual interaction remains a subject of further discussion.

The development of web technologies, the globalization of content beyond local, regional, and national borders, and the shift of information production—particularly news—from institutional monopoly to individuals have led to the integration of mass communication tools and individuals. This process, also referred to as the “global village” (McLuhan, 2020), appears to have taken firm root especially after 2015. While every phase of web technology development has been significant, the Web 2.0 era, which introduced interactivity to digital platforms, represented a particularly profound structural transformation. Platforms like wikis, YouTube, Twitter (now X), Instagram, and blogs emerged during this period (O'Reilly, 2009), and the globalization of information occurred.

In the new era, as interpersonal and mass communication evolved into a different structure on a global scale, the communication tools that institutions used to engage with their target audiences also changed. Printed, oral, and visual communication channels were replaced by digital platforms and websites. These digital platforms, which incorporate text, form, sound, and images, have made the preparation of websites increasingly important. As a result, methods for determining the principles and planning of professionally designed websites have emerged. It has become widely accepted that Gestalt principles should be considered in web design.

Gestalt Psychology began with Max Wertheimer's 1912 discovery that objects are not perceived as parts or sections but as wholes, and his subsequent article and studies on inducing motion in static forms. This approach argues that what is seen and what is perceived—or more precisely, what the brain interprets—are different, emphasizing the overall structure and shape of the object. It highlights that objects arranged in a simple and clear manner, in harmony with the brain, are more easily perceived. The theory is based on the premise that meaning is attributed to both the whole and the parts separately, and that objects are perceived as unified entities (Wagemans et al., 2012). It is asserted that if human visual focus can effectively lock onto the presented object, understanding is improved.

Gestalt principles are grouped under several main headings. The meaning derived from objects, events, and parts may differ from the meaning perceived when these elements are seen as a whole—this is known as the *principle of wholeness*. During perception, complexity in the content is rejected, and simpler and easier elements are favored—this is called the *principle of perceptual rejection*. Objects or perceived content are arranged according to a certain order and system, which guides perceptual processes—this is the *principle of organization*. Perceived objects or content are interpreted differently by each individual—this is the *principle of creativity*. The positivity experienced by the individual upon solving a problem and acquiring knowledge is defined as the *principle of learning enhancement* (Sekuler & Bennett, 2001).

Content created for different mass communication platforms—from newspapers and magazines to photography,

cinema, and television—is designed according to specific principles to enhance perception by the target audience. In order to ensure that content is perceived according to its intended purpose and achieves its goal, graphic design, visuality, and aesthetic principles are especially emphasized. From newspaper layouts to web page designs, various visual strategies are employed to ensure that visitors do not get lost in the complexity of content but are instead guided toward intended focal points through order and cues.

As institutional communication increasingly focuses on web pages, issues such as users getting lost on pages, difficulties in visual perception, and challenges in usability have come to the fore. During the design process, clarity, orderly placement of visuals, and ease of content discovery must be prioritized. Research on how the human brain perceives objects and visuals has guided web design planning and implementation. In this regard, Gestalt principles have assumed a defining role in determining the considerations necessary for web design. It is crucial for users to understand how to navigate the system, and the focal points of design are typically where users' attention will be drawn.

Within this framework, Gestalt principles have been applied to graphic and web design, and specific principles have been defined accordingly (Li & Fu, 2022: 827–831; Turner & Schomberg, 2016; Pera, 2019). The *principle of proximity* indicates that visual perception is influenced by the relative distance between objects; elements that are closer together tend to be perceived as part of the same group. The *principle of similarity* states that the human visual system perceives elements with similar color, shape, or size as part of a unified whole. The *principle of continuity* suggests that instead of focusing on missing visual parts, the perceptual system fills these gaps based on prior data. The *principle of closure* refers to the brain's ability to assemble incomplete elements into a whole based on previous experience and intent. The *principle of symmetry* emphasizes that the perceptual system simplifies complex shapes and tends to focus on balanced and symmetrical objects. The *principle of common fate* proposes that the human brain perceives objects moving together as a whole. Finally, the *figure-ground principle* posits that individuals distinguish a focal object from its background based on their visual capacity.

Various barriers—written, verbal, psychological, physical, etc.—can hinder access to web content. In order to facilitate global accessibility, eliminate usage barriers for individuals of different ages, education levels, and cultural backgrounds (including those with disabilities), and establish a standard framework, the WCAG 1.0 process was initiated with international collaboration. This process has since evolved into WCAG 2.0 and WCAG 2.1, followed by the W3C framework (WCAG, 2025).

When Gestalt design principles and WCAG 2.1 criteria are evaluated together, the following picture emerges:

Table 1. Relationship Between Gestalt Design Principles and WCAG 2.1 Criteria (2.1, WCAG, 2024)

Gestalt Principle	Related WCAG 2.1 Criteria	Explanation
<i>Proximity</i>	1.3 Information and Relationships	The perception that closely placed elements are related should be supported by semantic grouping structures.
	1.3.1 Information and	Similar images, colors, or icons that have the same function

Gestalt Principle	Related WCAG 2.1 Criteria	Explanation
<i>Similarity</i>	Relationships 1.4.1 Use of Color 3.2.4 Consistent Identification	should be supported with accessibility.
<i>Continuity</i>	2.4.3 Focus Order 1.3.2 Meaningful Sequence	The visual flow followed by the user should be consistent and meaningful with keyboard focus.
<i>Figure-Ground</i>	1.4.3 Contrast (Minimum) 1.4.11 Color Contrast	There should be sufficient contrast between the foreground element and the background.
<i>Closure</i>	1.1.1 Alternative Text 3.3.1 Error Identification	Alternative text or error messages should be provided to complete missing content.
<i>Symmetry and Order</i>	2.4.6 Headings and Labels 1.3.4 Orientation	The page layout should be consistent, symmetrical, and supported by logical heading structures.
<i>Common Fate Law</i>	1.3.1 Information and Relationships 2.2.2 Pause, Stop, Hide 2.4.1 Bypass Blocks 2.4.3 Focus Order 1.4.1 Use of Color	Useful and meaningful connections in visual grouping. Control of moving group elements. Scrollable menus/groups should be bypassable. Navigation order compatible with visual grouping. Contrast and alternative color presentations should be available.

Alongside universities, various theses focusing on Gestalt principles and web accessibility (Karabaş, 2020; Baştıbak, 2023), as well as several blog posts (Hawkins, 2025; Farrell, 2016; Becca, 2014), have discussed the issue of web components needing to meet certain criteria in order to be accessible and address the needs of diverse users. In another study (Kapllani & Elmimouni, 2020), the use of Gestalt principles in websites was examined, aiming to contribute to innovation in the fields of web design and web technologies. A different study investigating the perception of visual elements (Li & Fu, 2022) analyzed the websites of the Apple and Huawei brands. Distinct from these works, the present study evaluates the websites of the foundation universities included among the top three and the state universities included among the bottom three in Türkiye, based on the Webometrics Index, according to web accessibility criteria.

Method

Analysis of University Websites

In this study, the WCAG 2.1 (Web Content Accessibility Guidelines and Criteria) scale (WCAG, 2024) was taken as a reference, and the KAMİS Guide (*Standards for Usability and Accessibility of Public Institution Websites*), adapted by TÜBİTAK for all institutions in Türkiye, was utilized (Bilgem, 2024). Within this guide, there are 30

criteria categorized under Level A. The websites of the universities examined in the study were evaluated based on the criteria included in the KAMİS Guide.

In the research, the purposive sampling method known as “extreme or deviant case sampling” was employed. The reason for using this method is to analyze situations associated with very high and very low performance in terms of implementation. In this context, the Webometrics system, developed by the Cybermetrics Lab—an academic research group of the Spanish National Research Council—was used. This system includes more than 32,000 universities worldwide. A total of 209 universities from Türkiye are listed in this system. Among these, universities ranked at both the top and bottom ends of the list were selected for analysis, which was conducted between October 1, 2024, and January 10, 2025.

When examining the criteria used to rank university websites, it is observed that several global indices exist that rank universities based on their visibility on internet search engines. The primary objectives of the Webometrics ranking are to evaluate the web presence of universities, to promote the dissemination of academic knowledge through open access, to assess the international performance and web visibility of universities, and to ensure their content is digitally accessible and available online.

Bilkent, Koç, and Sabancı Universities

According to the Webometrics ranking, the evaluation data of Bilkent, Koç, and Sabancı Universities—among the top-ranked institutions—based on 30 criteria are presented in Tables 1/a, b, and c.

Table 1/a. Level A - 30 Criteria and Results of Bilkent, Koç, and Sabancı Universities

Universities	Non-Text Content	Audio-Only and Video-Only Media	Captions	Audio Description or Media Alternative	Info and Relationships	Meaningful Sequence	Sensory Characteristics	Use of Color	Audio Control	Keyboard	No Keyboard Trap	Adjustable Time	Pause, Stop, Hide	Three Flashes or Below Threshold	Bypass Blocks
Bilkent	Yes	No	Yes	No	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No
Koç	Yes	No	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No
Sabancı	Yes	No	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No

Table 1/b. Level A - 30 Criteria and Results of Bilkent, Koç, and Sabancı Universities

Universities	Page Titled by Topic	Focus Order	Purpose of Link	Page Language	Focus	For Input	Error Identification	Labels and Instructions	Parsing	Name, Role, Value	Keyboard Shortcuts	Pointer Gestures	Pointer Cancellation	Labels Contain the Name	Motion Activation
Bilkent	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Koç	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Sabancı	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes

Table 1/c. Level A – 30 Criteria and Results of Bilkent, Koç, and Sabancı Universities

University	Yes		No		Total	
	Number	%	Number	%	Number	%
Bilkent University	24	80	6	20	30	33.3
Koç University	25	83.3	5	16.7	30	33.3
Sabancı University	25	83.3	5	16.7	30	33.3
Total	74	82.2	17.7	74	90	100

When the websites of Bilkent, Koç, and Sabancı Universities—ranked among the top in the Webometrics Index—are evaluated based on the 30 criteria under WCAG 2.1 Level A, it is observed that their results are relatively close to each other. The website of Bilkent University fails to meet 6 out of the 30 accessibility criteria (20%) and meets 24 of them (80%), indicating a strong performance overall. Among the unmet criteria, the absence of audio and video alternatives—such as audio descriptions or media alternatives—can restrict full content access for users with visual or hearing impairments. The criterion concerning the use of color may hinder clarity for users with visual disabilities such as color blindness. Additionally, the inability to skip blocks can cause navigation difficulties for users who rely on keyboard access. The absence of meaningful sequencing suggests that the content was not structured with disabled users in mind. Finally, the lack of keyboard shortcuts complicates access for users with disabilities or other disadvantages. Addressing these deficiencies would contribute significantly to making the site more accessible and aligned with international accessibility standards.

Koç and Sabancı Universities, on the other hand, each meet 25 out of the 30 WCAG 2.1 Level A criteria (83.3%) and fail to meet 5 criteria (16.7%). The unmet criteria include: Audio-Only and Video-Only Content, Audio Description or Media Alternative, Use of Color, Skipping Blocks, and Keyboard Shortcuts. The lack of alternative options in audio and video content, as well as missing audio descriptions, poses challenges for users with visual or hearing impairments in accessing information. In addition, weak and insufficient use of color may impair the perception of content for visually impaired users. The inability to skip blocks hinders effective navigation for screen reader users, while the absence of keyboard shortcuts can create problems in both global and national access. Improvements in these areas are likely to enhance the accessibility and inclusiveness of the websites.

When the data from all three universities are evaluated collectively, it is noteworthy that Koç and Sabancı perform slightly better than Bilkent by one criterion, representing a 3.3% difference. It is worth emphasizing that all three universities exhibit a high level of awareness and a strong sense of responsibility regarding WCAG 2.1 Level A accessibility criteria. Should the identified shortcomings be addressed, it is anticipated that the websites of these three universities could serve as exemplary models for other universities and institutions.

Turkish-Japanese Science and Technology University, Bakırçay University, and Ankara University of Music and Fine Arts

According to the Webometrics ranking, the evaluation data of Turkish-Japanese Science and Technology

University, Bakırçay University, and Ankara University of Music and Fine Arts—ranked among the lowest—based on 30 criteria are presented in Tables 2/a, b, and c.

Table 2/a: Level A – 30 Criteria and Results of Turkish-Japanese Science and Technology University, Bakırçay University, and Ankara University of Music and Fine Arts

Universities	Non-Text Content	Audio-Only and Video-Only Content	Captions	Audio Description or Media Alternative	Information and Relationships	Meaningful Sequence	Sensory Characteristics	Use of Color	Audio Control	Keyboard	No Keyboard Trap	Adjustable Time	Pause, Stop, Hide	Three Flashes or Below Threshold	Bypass Blocks
Turkish-Japanese Science and Technology University	Yes	No	Yes	No	Yes	Yes	No	No	Yes	Yes	Yes	No	Yes	Yes	No
Bakırçay University	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No
Ankara University of Music and Fine Arts	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No

Table 2/b: Level A – 30 Criteria and Results of Turkish-Japanese Science and Technology University, Bakırçay University, and Ankara University of Music and Fine Arts

Universities	Page Titled by Topic	Focus Order	Purpose of Link	Page Language	Focus	For Input	Error Identification	Labels and Instructions	Parsing	Name, Role, Value	Keyboard Shortcuts	Pointer Gestures	Pointer Cancellation	Labels Contain the Name	Motion Activation
Turkish-Japanese University of Science and Technology	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	Yes	Yes	Yes
Bakırçay University	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Ankara University of Music and Fine Arts	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	Yes	Yes	Yes

Table 2/c: Level A – 30 Criteria and Results of Turkish-Japanese Science and Technology University, Bakırçay University, and Ankara University of Music and Fine Arts

University	Yes		No		Total	
	Number	%	Number	%	Number	%
Turkish-Japanese University of Science and Technology	21	70	9	30	30	33.3
Bakırçay University	24	80	6	20	30	33.3
Ankara University of Music and Fine Arts	25	83,3	5	16,7	30	33.3
Total	70	77,7	20	22,2	90	100

When the websites of Turkish-Japanese Science and Technology University, Bakırçay University, and Ankara University of Music and Fine Arts are evaluated based on the 30 criteria under WCAG 2.1 Level A, it is observed that the results vary significantly among them. The website of the Turkish-Japanese Science and Technology University fails to meet 9 out of the 30 accessibility criteria (30%) and meets 21 of them (70%). The unmet criteria include: *Audio-Only and Video-Only Content*, *Audio Description or Media Alternative*, *Sensory Characteristics*, *Use of Color*, *Adjustable Time*, *Skipping Blocks*, *Error Identification*, *Labels and Instructions*, and *Keyboard Shortcuts*.

The website lacks content related to video, media, and audio, which may be considered a deficiency in terms of the university's promotion and student recruitment periods. In the remaining categories identified as deficient, the issues are likely due to technical shortcomings in the web software. Considering the 21 criteria (70%) that were met, the website presents a relatively positive image for a newly developing public university. However, the absence of media and audio content, along with technical and design-related shortcomings, should be acknowledged as factors that negatively impact user accessibility, university visibility, and the continuity of user experience enhancement processes.

When Bakırçay University's website is evaluated according to WCAG 2.1 Level A accessibility standards, it is found to meet 24 criteria (80%) and fail to meet 6 criteria (20%). The unmet criteria include: *Audio-Only and Video-Only Content*, *Audio Description or Media Alternative*, *Pause/Stop/Hide Controls*, *Skipping Blocks*, *Page Language Identification*, and *Keyboard Shortcuts*. These deficiencies may hinder access to video and audio content for users with visual and hearing impairments. In particular, the lack of audio descriptions or media alternatives for audio- or video-only content can prevent users from benefiting from such materials. Furthermore, the inability to skip blocks, lack of page language identification, and absence of keyboard shortcuts pose significant accessibility barriers, especially for users who rely on keyboard navigation. Addressing these issues would allow the website to offer a more inclusive and accessible experience for all users.

It can be stated that Ankara University of Music and Fine Arts, despite being ranked among the lowest in the Webometrics Index, has achieved noteworthy success by meeting 25 out of the 30 WCAG 2.1 Level A

accessibility criteria (83.3%). The 5 unmet criteria (16.7%) include: *Audio Description or Media Alternative*, *Skipping Blocks*, *Error Identification*, *Labels and Instructions*, and *Keyboard Shortcuts*. By eliminating these deficiencies and achieving full compliance with all Level A criteria, the university's website could serve as a strong example in the domain of basic accessibility.

Conclusion

The rapid development of information and communication technologies has led to widespread digitalization. Through digitalization, individuals now actively participate in public services, benefit from educational services, and engage in the digital version of social life. With the emergence and evolution of web technologies, the delivery of services by public institutions, including those related to education, has entered a new era. In this context, it has become essential to design web platforms in a way that ensures equality, accessibility, usability, and user-friendliness for all users.

For public institutions and organizations, it is crucial that their web platforms are universally designed and accessible to everyone. Accordingly, designing and developing web platforms in compliance with internationally and nationally accepted standards—specifically WCAG 2.1 (Web Content Accessibility Guidelines) has become one of the necessities of the digital age. Another key consideration in relation to web platforms is the implementation of Gestalt Psychology principles. Web platforms designed with reference to Gestalt theory and principles, which are based on the visual perception processes of the human mind, play an important role in creating accessible and user-friendly interfaces. Web platforms designed in accordance with Gestalt principles can significantly enhance direct access for individuals with disabilities, elderly users, individuals with limited access to high-end technologies, users with low digital literacy, and other disadvantaged groups.

In this study, three foundation universities ranked among the top and three state universities ranked among the bottom in Türkiye—according to the Webometrics (World University Rankings) index—were examined based on 30 criteria under the WCAG 2.1 Level A web accessibility standards. It was found that the top three universities met a large proportion of the 30 criteria (24 and 25 criteria, equivalent to 80–83.3%) and demonstrated high awareness and strong responsibility in meeting WCAG 2.1 Level A accessibility standards. Similarly, it was observed that the three lowest-ranked universities also met a significant portion of the 30 criteria (21, 24, and 25 criteria—equivalent to 70%, 80%, and 83.3%, respectively). The results of the study indicate that there is no significant difference in accessibility performance between top- and bottom-ranked universities according to the Webometrics index, as one of the lowest-ranked universities showed the same level of compliance as those at the top.

It is important to emphasize that addressing the identified shortcomings in the universities examined within this study—as well as in the websites of other institutions—could serve as a model for other public organizations. Enhancing accessibility would improve users' ability to navigate and benefit from web content, contributing to more inclusive and user-centered digital platforms.

Notes

A portion of the content in this article is included in İsrail Yücel's doctoral dissertation titled "Digital Accessibility in Universities: An Examination of Turkish Public and Foundation Universities".

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