



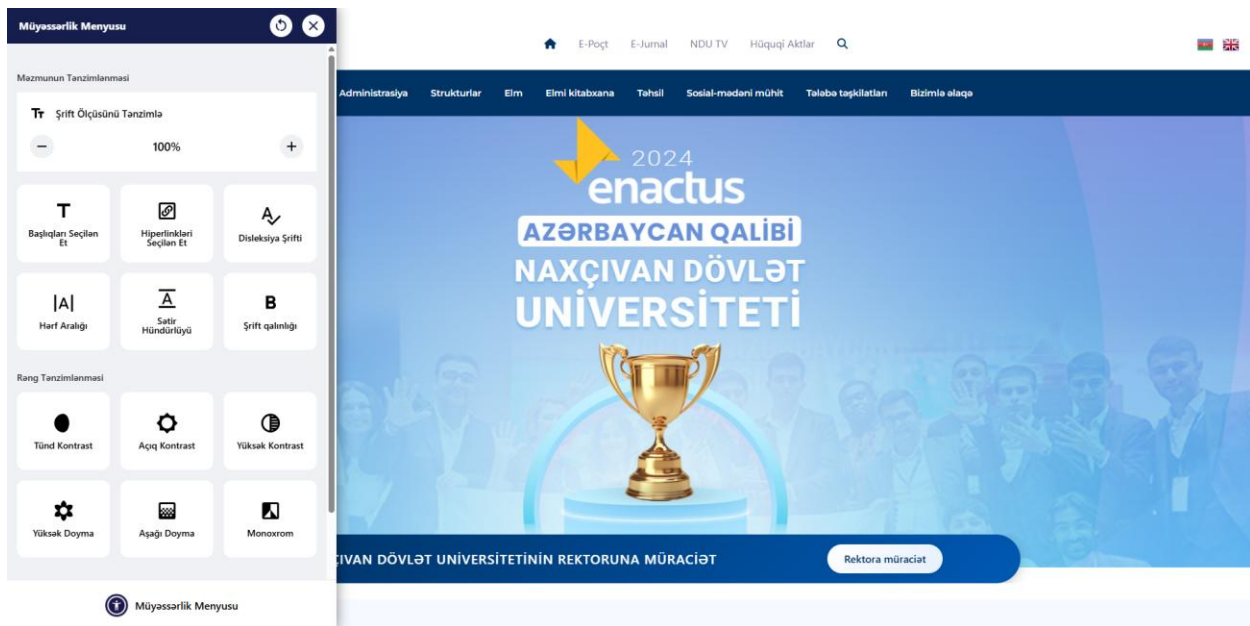
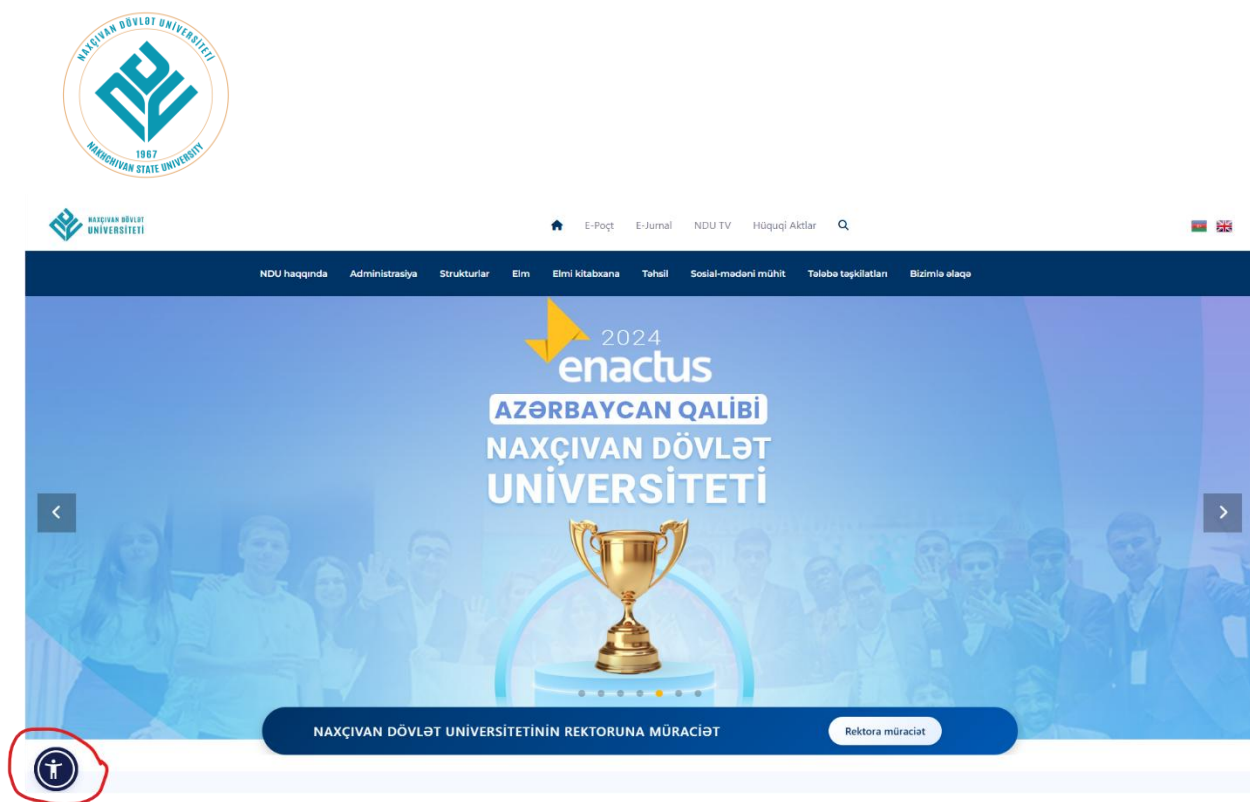
University : Nakhchivan State University
Country : Azerbaijan
Web Address : <https://ndu.edu.az/>

Scientific and technical foundations of a web accessibility menu and its implementation on the Nakhchivan State University website

In the modern information society, ensuring that digital resources are accessible to everyone is considered one of the main priorities. In this context, the concept of web accessibility holds special importance. Web accessibility is a system of principles and technologies that ensures users with physical, sensory, cognitive, and other limitations can use web resources equally and effectively. One of the practical implementations of these principles is the accessibility menu.

The accessibility menu is an interactive module located within the user interface that allows users to customize a web page according to their individual needs. Through this menu, users can change text size, activate contrast modes, improve readability, and use alternative control methods. This demonstrates that the interface is not static, but adaptive in nature.

Among higher education institutions in Azerbaijan, Nakhchivan State University is one of the leading examples in this field. The implementation of an accessibility menu on the university's official website, ndu.edu.az, can be considered an important step toward creating an inclusive digital environment.



Using the accessibility menu on ndu.edu.az is quite simple and functional. After entering the website, the user can activate this menu via a special icon located on the



edge of the screen. Once the menu is opened, various options are presented to the user. These options include increasing or decreasing text size, enabling high contrast mode, improving readability, and navigating via the keyboard. The selected settings are applied in real time, allowing the user to immediately observe the results.

The development of such systems is based on international standards. In particular, the Web Content Accessibility Guidelines (WCAG) 2.1 standard defines the main framework for web accessibility. This standard is built on the principles of perceivability, operability, understandability, and robustness, and plays an important role in shaping the functional capabilities of the accessibility menu.

From a technical perspective, the accessibility menu is mainly built on client-side technologies. Through JavaScript, user interactions are monitored and dynamic changes are applied to DOM elements. CSS, in turn, manages visual adjustments such as color contrast and font sizes. Since these changes are implemented in real time, the user interface adapts instantly.

In addition, the accessibility menu must be compatible with assistive technologies. Screen reader programs, voice control systems, and other assistive technologies integrate with this system to serve a wider range of users. This compatibility is ensured through semantic HTML structure and ARIA attributes.

As a result, the accessibility menu implemented on ndu.edu.az is not only a technical innovation but also a practical manifestation of social responsibility and the principle of inclusivity. This system both improves user experience and serves as an exemplary model in terms of the application of modern web technologies.