

Research Paper

Responsive Web Design and its Impact on Web Accessibility

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Abstract

Responsiveness and accessibility are two characteristics that are crucial to the usability of a website. While the first one refers to the flexible adaptation of the layout to the various devices with which a website can be accessed, the focus in the latter is on the inclusion of as many audience groups as possible, by taking the diversity of the users into account. The goal is that everyone has access to the contents of a website, no matter which device is used and regardless of the individual abilities of the users.

The foundation of a functional and aesthetically pleasing website is formed by the principles of the Responsive Web Design paradigm and Web Accessibility. Considering their best practices as well as the case studies which were carried out in this paper, it can be seen that a large number of different factors must be taken into account during the development process. Creating a web page that is best viewed on different devices is a start, as it solves some accessibility problems, but it does not provide support to people with special needs or disabilities, such as users with different types of vision or hearing impairments. As a result, issues concerning, for example, contrast, typography, text alternatives for visual content, the reading order or the navigation have to be considered. Furthermore, the separation of content and representation benefits accessibility and Responsive Web Design. It can be avoided that information is conveyed only by visual means, and the semantic meaning is accessible to assistive technologies as well as the style sheet can include media queries to define the layout rules for a range of devices, which enhances the user experience for more people. In addition, it becomes clear that the creation of a simultaneously functional and accessible website is possible without giving up an appealing design.

Keywords: Responsive Web Design, Mobile First, Progressive Enhancement, Graceful Degradation, Web Accessibility