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FEATURES OF USING PARALLAX EFFECT IN WEB DESIGN

In a short period, the web design industry has been able to go through many stages of development. And now the development hasn't stopped and continues to gather momentum. New technologies and methods of implementing graphic content on web pages appear daily. Trends change quickly and things which were popular a month ago may obsolete. There are also cases when forgotten old things are reinterpreted and returned to web design. The parallax effect is one such example.

The purpose of this work is to analyze information about the parallax effect, determine its main function and features of working with it. Highlight the main problems encountered by web designers and users of Internet pages.

In web design, the parallax effect or parallax scrolling is a special technique when certain elements of an image move. The actual word parallax is derived from the Greek παραλλαξη (parallaxis) which means alteration. Objects which are closer to the eye have a larger parallax than objects which are in the distance. This means that objects which are closer to us can appear to move faster than objects in the background [1].

Parallax came to web design from two-dimensional computer games, where the effect of depth and volume of the image was created in this way. Parallax usually uses multiple backgrounds that seem to move at different speeds, creating an artificial 3D effect and making site browsing much more interesting. Nowadays, the concept of 2.5D (AC Chronicles) is more commonly used in the gaming industry. It's not 3D yet, but it's no longer a flat two-dimensional version, it's an illusion of depth. This illusion was first used in the 1982 Moon Patrol project [2].

Websites with parallax effects are quite interesting, but there are some disadvantages to this effect. The main problem is related to site performance. It looks nice and stylish, but the use of JavaScript or jQuery, which creates a parallax effect, greatly complicates the page and reduces the speed of its loading. This is because it's based on complex calculations: JS has to control the state of each pixel on the screen. In some cases, the situation is complicated by cross-browser and cross-platform issues.

With the advent of CSS3, the task has become a little easier. It can create a very similar effect, which will be much more economical in terms of resources. The point is that the content of the site is placed on a single page, and the movement on the subpages is by the method of CSS3-transition. This is the same parallax, but with some difference: the fact is that it's impossible to achieve that the movement is carried out at different speeds using only CSS3. Besides, this standard is not supported by all modern browsers. Therefore, according to the developers, the parallax effect should not be applied to more than two elements of the page. This effect is usually used for landing pages to present the product and reveal its positive qualities through the story [3].

Thus, the main feature of the parallax effect is the creation of an illusion of three-dimensionality, due to the movement of individual objects in the image. It is widely used for promo sites and landing pages. This helps to attract attention to the product and attract potential buyers. However, the main drawback is the problem with site performance, which affects the load time of the page and its elements.

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