

Overview

Usable and Accessible = Cool

Usability is not synonymous with accessibility. Usability means designing a user interface that is effective, efficient and satisfying. According to industry expert Dr. Jakob Nielsen, usability has five primary components: learnability (ease of first-time use), efficiency (tasks can be performed quickly), memorability (tasks can be revisited), errors (errors are handled elegantly and correctly), and satisfaction (the design is pleasant.)

To create their products, many Web and software developers follow the practice of user-centered design (UCD) which focuses on the tasks, workflow and characteristics of the end-user. When following this model, however, many developers focus on a narrow range of users, and often tend to factor in their own preferences into the design. As a result, the design may be limiting to some users, and accessibility is often overlooked.

Rather than thinking in terms of usability, strive for universal design, or "designing for all," instead. This concept originated out of architectural design, and is now being adopted as a leading practice in the fields of education and information technology.

Universal design describes the process of creating products and services that are available and marketable to the widest array of users, to the greatest extent possible, without the need for adaptation or specialized accommodation.

For architects, this can mean including wheelchair-friendly features such as entry ramps, elevators, wider doorways, and door levers instead of doorknobs. These features also benefit people with baby strollers, elderly people, shoppers with packages, and those with limited use of their hands.

For the Web designer, universal design can mean incorporating features such as grouping related items, using relative sizing, and using device-independent form controls. These features can benefit visitors who use screen readers, those with vision disabilities, and people who rely on keyboards instead of mice. However, everyone benefits because the information is easier to scan, and it can be displayed better on a variety of devices, including PDAs and Web phones.

Universal design is a vast field into itself. Presented here are some tips, founded upon accessibility principles. For detailed information about this exciting movement, visit the related links below.

Related Links

[Alertbox: Current Issues in Web Usability](#)

- Bi-weekly Web usability column by Dr. Jakob Nielsen.

[UI Access](#)

- A free resource for universal interface design and usable accessibility information.

[General Concepts, Universal Design Principles and Guidelines](#)

- Trace Research and Development Center.

[Human Centered Design](#)

- Adaptive Environments

[Universal Design for Learning](#)

- Center for Applied Special Technology (CAST).

[The Principles of Universal Design](#)

- Department of Apparel, Textiles, and Interior Design, Kansas State University.

[Universal Design and Home Accessibility](#)

- Human Development and Family Studies, Iowa State University.

[A Home for the Next 50 Years](#)

- Universal Designers and Consultants, Inc.

[Usability Quotes](#)

- Theo Mandel, PhD, Usability researcher.