

Lesson 1 Design that Benefits All

Universal Design

What do you think good design is? Some might assert good design makes products easy to use, while others might say good design is stylish or innovative. There are even some who believe that good design should be as environmentally friendly as possible. All of these are important elements of design. However, there is a new idea called "universal design." This idea suggests that design should go beyond mere pretty looks and functions. Universal design takes into account the diverse needs of different people and includes features that make it possible for them to access and use products without any barriers. Now let's take a look at how universal design is tackling the problem of limited access and reshaping the design of products and services.

Universal design suggests that design be as flexible as possible so that it can accommodate diverse needs and a wide range of individual preferences. This could involve providing a variety of options for customization or adding adjustable features to a product.

Take a look at the scissors, the computer mouse, and the desk pictured below. Do you notice how they differ from the more common types of scissors, mice, and desks? They are all designed for left-handed people. Without them, about 10% of the world's population, who are left-handed, would find these simple products difficult to use.

The height-adjustable desk is also a good example of a universal design that accommodates a wide range of individual preferences and abilities. If the desk is too high or too low, the users can adjust it to the heights they want. If desired, the user can work while standing. A wheelchair user is also able to use the desk at a comfortable height.

Universal design also ensures that an environment or product is accessible to everyone. Anyone should be able to use a design regardless of who they are and what they're capable of, and no one should be excluded. Curb cuts are a good example. Without curb cuts, people in wheelchairs would have a hard time navigating the city. Curb cuts eliminate barriers not only for wheelchair users but also for people moving heavy loads or riding bikes. Like curb cuts, automatic doors in public buildings also allow all people to enter without any major problems.

Another characteristic of universal design is requiring low physical effort. Universal design seeks to create products that can be used efficiently and comfortably without causing unnecessary fatigue. Undoubtedly, many people have had trouble trying to open a lid of a jar that was stuck. Opening a lid can be a great challenge to people with a weak grip, the elderly, or people with hand or finger impairments. Fortunately, various clever opening devices have been designed.

A lever-type door handle, which requires no firm grip or twisting, is also an example that reflects this characteristic of universal design. A door with a lever-type door handle can be opened using an elbow or a closed hand, which benefits people carrying baskets as well as those with limited strength in their hands.

Universal design is not limited to the design of physical products or facilities. Universal design pushes for designs in which critical information is conveyed well, regardless of the surrounding environment or the user's sensory abilities. Information should be conveyed not just through written language but also through universal symbols and audio cues.

For instance, when it comes to foreign travelers, finding a restroom is much easier when they can simply look for the universally recognized restroom symbol rather than trying to interpret the local language. For those with visual or audio impairments, bus and subway arrival times are not only presented on electronic boards but also called out through voice announcements. In elevators, braille, which indicates the floor number, allows individuals with visual impairments to select their desired floor. Additionally, audio announcements confirm the selected floor and tell passengers when the elevator has reached their desired floor.

As such, providing information in these diverse forms ensures that everyone can access and understand important information, regardless of language barriers, sensory impairments, etc.

Universal design is beneficial to everyone. With universal design, no one needs to put up with unnecessary discomfort. The supporters of universal design suggest that it should be part of every design. Take a look around you. Is there anything that needs improvement so that it can be accessible to more people? If so, why not create a design and bring joy to more people?