

THE HISTORY OF UNIVERSAL DESIGN

ESSENTIAL FOR ONE, BENEFICIAL FOR ALL!

“UNIVERSAL DESIGN IS THE DESIGN AND COMPOSITION OF AN ENVIRONMENT SO THAT IT CAN BE ACCESSED, UNDERSTOOD AND USED TO THE GREATEST EXTENT POSSIBLE BY ALL PEOPLE REGARDLESS OF THEIR AGE, SIZE, ABILITY OR DISABILITY”(CIO COUNCIL OPERATIONS, 2017).

The original concept of Universal Design was created by architect, industrial designer, and wheelchair user, Ronald Mace.



In 1997 Ronald led a group to put together 7 principles of universal design to help guide the design process of environments, products and communications.

THE HISTORY OF UNIVERSAL DESIGN

ESSENTIAL FOR ONE, BENEFICIAL FOR ALL!

The 7 Principles:

Equitable Use

The design is useful and marketable to people with diverse abilities. For example furniture that can be raised or lowered to accommodate users of varying height, or an individual in a wheelchair.

Flexibility in Use

The design accommodates a wide range of individual preferences and abilities. For example a video that has captioning, will allow people the option to choose to read or listen in order to understand the content.

Simple and Intuitive Use

Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level. For example a website that is well-organized with clear headings will facilitate access to information.

Perceptible Information

The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities. For example a video that includes voiceover for individuals with visual impairments.

Tolerance for Error

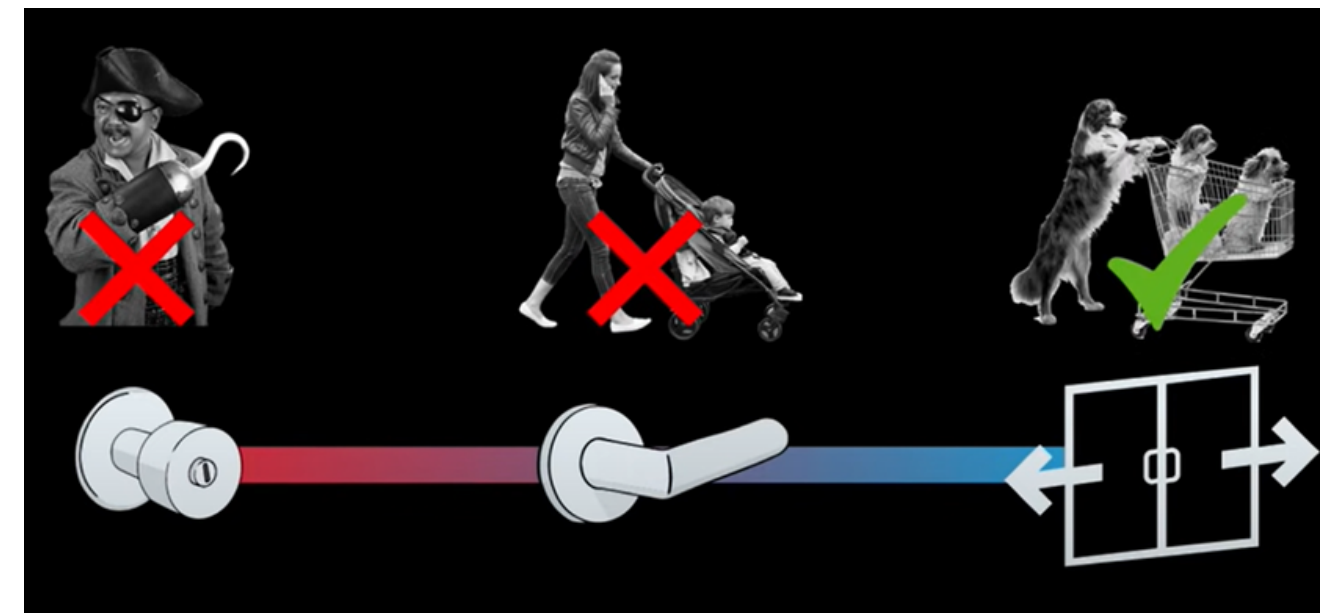
The design minimizes standards and the adverse consequences of accidental or unintended actions. For example a hallway that is free of protruding objects at a height where they might not be detectable for someone with a visual impairment who uses a cane.

Low physical effort

The design can be used efficiently and comfortably and with a minimum of fatigue. For example an automatic sliding door to facilitate access into a space.

Size and space approach and use

Appropriate size and space is provided for approach, reach, manipulation, and use regardless of user's body size, posture, or mobility. For example a classroom that includes a range of seating options, with chairs and tables that can be adjusted to support the individual size.



Example

One example of Universal Design is the evolution of doors. A round door knob may be used by some, but would not be easily used by someone with mobility challenges or with their hands full, with it being the most difficult door knob to use.

Next design would be a lever style knob, which is easier to utilize by more people.

Finally, the most accessible door to access would be through an automated sliding door. This design allows for everyone to be able to use with ease.

The automated sliding door would be essential for wheelchair users, or those pushing a stroller, but they benefit us all.

The work of Ronald Mace then lead to the development of Universal Design for Learning 7 Principles. Universal Design for Learning (UDL) framework was created by CAST and has 3 main principles: Expression, Engagement, Representation.