



## Ergonomics in Design for All/ Newsletter

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Dear Members and Friends of the International Ergonomics Association (IEA),  
Ergonomics in Design for All Technical Committee,  
**Welcome to our fourth year and twelfth newsletter!**

I wish you good luck with your work,  
**Isabella T. Steffan**  
IEA Ergonomics in Design for All TC  
Chairperson

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## AWARDS

### U DESIGN FOR REAL PEOPLE

**Design competition challenges students in architecture, interior architecture and product design**

*By Kathleen Polders, Inter, The Netherlands*

Design for real people and apply the principles of Universal Design. That is the assignment in the U Design for Real People competition for students of European design courses in architecture, interior architecture and product design. This academic year, they will increase their knowledge of Universal Design in a Facebook challenge and during four workshops, and will consult experts and people with disabilities. They will submit their competition design in July 2020. **In September 2020, an international jury will decide who will run the grand prize: a study trip to Lisbon.**

There are three categories:

- Built environment
- Products
- Interior

In the U Design for Real People design competition, architecture, interior design and product design students learn to integrate the principles of Universal Design into the design assignments that form part of their education.

Thanks to Universal Design, designers come up with solutions that work for everyone. That is a long-term profit. For users of all ages, with and without disabilities.

Universal Design then becomes an obvious choice for the designers of tomorrow. Not as an extra condition, but simply as part of every design assignment.



Read more about the competition on [www.udesign.world/english](http://www.udesign.world/english)

Timeline:

- Registration: before 12 March 2020
- Submitting the competition design: before 5 July 2020.
- Exhibition of selected projects and International jury: 9 september 2020
- Congres and award ceremony: 10 september 2020, Hasselt

The U Design for Real People design competition is organized by Inter, the Flemish expertise center on accessibility and Universal Design together with Agency for Domestic Governance, Equal Opportunities team. Contact:

Kathleen Polders, [Kathleen.polders@inter.vlaanderen](mailto:Kathleen.polders@inter.vlaanderen)

Written conference papers are open access and are available at: [www.cie.co.at/publications/cie-session-washington-2019](http://www.cie.co.at/publications/cie-session-washington-2019)

# FOCUS

## A BOOK ON ACCESSIBLE DESIGN RECENTLY PUBLISHED IN JAPAN

### Basic concept and theory for accessible design

by Ken Sagawa, Ergonomics in Design for All, Tsukuba City, Japan

When we think about accessibility or accessible design, following questions we often confront.

- What is the basic concept of accessible design?
- How does it differ from usability?
- What are the differences between accessible design and assistive products?

Though not widely supported yet, some answers are given in the book entitled “Accessible design” which was recently published in Japan and introduced briefly in a previous issue of this newsletter. As for the first question, the book refers to the definitions on accessible design appeared in ISO/IEC Guide 71 to point out one of the most important points is “to maximize the number of potential users who can readily use products”.

A process to increase users is illustrated in [Figure 1](#) taking a medicinal receptacle as an example. Usually the label on the bottle is written with small letters and only young people can read while older people have difficulty in reading. If the font is changed to a larger one, the older people can read and users extend to the range of older people. Furthermore, if Braille was put on the bottle, blind people can read the label and be included as users (the third level in the figure). This is the increasing users, which is one of the basic design concepts of accessible design. Final goal is of course the widest range of users, or all types of users.

Relation between usability and accessibility is always a difficult question. Some people say they are same concepts. [Figure 2](#) gives us two ways of thinking about the relationship. One way is to consider accessibility and usability are completely independent as shown in the left side illustration of the figure. Usability is the axis of “how usable (effective, efficient, satisfaction) the product is” and accessibility is “how many users can use the product”. They are considered as different design concepts. Some products are in high accessibility and but in low usability or vice versa. Of course, the final goal should be high usability and high accessibility. The other way of thinking is the two axes should always be coordinated each other toward the final goal, as shown in the right-side illustration. Goal is the same in the two ways of thinking but the way of considerations is rather different. It is difficult to say which is better, but the independent relationship is logically more understandable.

Concerning with question 3, some differentiating points are illustrated in [Figure 3](#) where accessible design is given at the left side and the assistive products to the right taking also a medicinal bottle with small letters as an

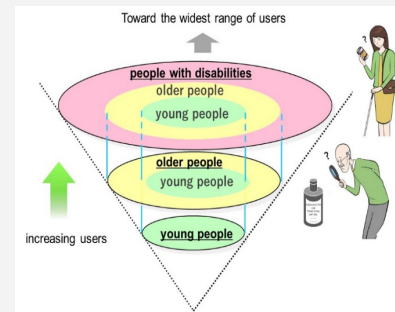


Figure 1 A concept of increasing users in accessible design

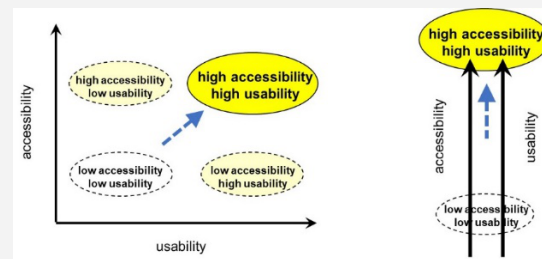


Figure 2 Usability and accessibility

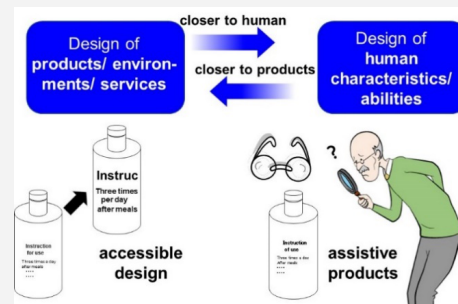


Figure 3 Accessible design and assistive products

example. In order to solve the problem of small letters, assistive products try to develop glasses or a magnifier for older people to read them, while in the accessible design the letters are designed to larger font so that older people can read them. In accessible design human is not changed but products are, while in assistive products human ability changes with glasses but the products have no change. That is, accessible design is a design of products while assistive products is a design or an enhance of human ability. The solution is the same, but the ways to solve it differ considerably. In Chapter 2 of the book “Accessible design”, these basic theoretical issues in accessible design are addressed, and some ways of considerations, guidelines or solutions are presented.

The book is written all in Japanese, by Ken Sagawa, Kenji Kurakata and Nana Itoh and be available from [NTS Co. Ltd.](#)

## CONGRESSES AND CONFERENCES

### INTERNATIONAL CONFERENCE "SLIPS, TRIPS AND FALLS 2020"

By Isabella T.Steffan Ergonomics in Design for All, Milano, *Italy*

*The Slip Resistance Group of Spain (SRGS) held the International Conference "Slips, Trips and Falls 2020" in Madrid, on 13-14 February*

Organised by the SRGS Slip Resistance Group Spain in collaboration with the "Slips, Trips and Falls" Technical Committee (IEA TC STF) of the International Ergonomics Association. In Spain, nearly 1,000,000 older people are injured outside their homes, and 1,500,000 accidents occur.



STF participants, Madrid

This means an accident rate of 12.8% of the population over 65 years (source: Estudio de la accidentabilidad de las personas mayores fuera del hogar, Fundación Mapfre, Feb.2011)

The conference attracted 50 delegates involved in designing spaces (architects, engineers, public and private managers, manufacturers, laboratories, builders, maintenance and conservation companies), interested in preserving the health and safety of all users and choosing the right materials.

Many talks included the UD/DfA approach and accessibility.

It has been a great opportunity to meet professionals from Australia, America, Belgium, Canada, Germany, Great Britain, Italy, Poland, Spain, and sharing different knowledge on risk of falling and characteristics of some elements of the built environment; Risk of injuries related to Specific environment and activities, such as: bathrooms, hospitals, pools, pedestrian routes; Characteristics of surfaces materials and shoes.

A copy of the conference programme can be accessed at [www.stfmadrid2020.com](http://www.stfmadrid2020.com)

### THE TENTH SESSION OF THE WORLD URBAN FORUM

#### Cities of Opportunities: Connecting Culture and Innovation

February 8-13, 2020, in Abu Dhabi, UAE

By Erminia Attaianese, Associate Professor to University of Naples Federico II, chair of LEAS (Laboratory of Experimental and Applied Ergonomics)

The WUF is a non-legislative technical forum convened by the United Session Human Settlement Program (UN-Habitat) hosted in a different city every two years to examine the most pressing issues facing the world today in the area of the human settlements. Operating as an open-ended think platform for multi-stakeholder dialogue and collaboration, the WUF is one of the most inclusive international gathering of urban challenges, which slogan is "A better quality of life for all in an urbanized culture".

Focused on the implementation of the 2030 Agenda on Sustainable Development and New Urban Agenda, the WUF 10 in Abu Dhabi has been structured on a number of events organized in collaboration by representatives of national, subnational and local governments, international and regional organizations, parliamentarians, civil society, older persons, women, youth, children, persons with disabilities, grassroots groups, indigenous peoples and local communities, professionals, the private sector, foundations and



[wuf.unhabitat.org](http://wuf.unhabitat.org)

philanthropies, academia, professionals and other relevant stakeholders. The issue of inclusion is thus implicitly and explicitly expressed in the WUF, both in term of goal of urban strategies for a sustainable development, both in terms of design solutions, and practices based on principles of universal design and design for all. Cities have the opportunity to take the lead to plan and design as well as manage transitions towards inclusion, resilience, sustainability, economic growth and shared prosperity, even though, at the same time, they are addressing many global challenges including poverty, gender inequalities, human rights

violations, unemployment, health emergencies, loss of social cohesion, threat to cultural heritage and cultural diversity, environmental degradation, migration, disaster risk and climate change. As a result of WUF 10, the Abu Dhabi Declaration, states that culture is an integral part of the solution to the challenges of urbanization since it is a core component of local

identity including heritage, creativity and diversity and urbanization need to be planned, designed and managed to enhance this.

Culture and heritage are essential in the context of peoples' empowerment as well as their universal access to services, and ownership of regeneration and social cohesion strategies.

## OBITUARY

Dr. Daryle Gardner-Bonneau, a member of IEA Ergonomics in Design for All, and also a member of HFES in US has passed away December 15th, 2019 in her home in Michigan, US.

Daryle was an expert of Ergonomics in the field of hearing, and served as the US representative to ISO/TC159 Ergonomics. She had much interest and enthusiasm to work for accessibility standardisation in ISO taking an important and irreplaceable role in almost all the accessibility-related WGs (WG2, SC4/WG10, SC5/WG5, SC1/WG5) in TC159. Her contributions in the ergonomics field of ISO were so great.

She was missed by all people in TC159 and also by those involved in accessibility standardisation in ISO. It was a good memory for us that we had her in our special session as a guest speaker on Design for all in IEA2018 in Florence. (Ken Sagawa)



Promoting Ergonomics in Design for All is a core activity of our EinDfA TC. You can find information about objectives, domains of interest, members of the TC here:

<http://www.iea.cc/about/technical.php?id=56d641e4ddc48>

12/2020 - If you no longer wish to receive these emails, contact us for unsubscribe: [info@studiosteffan.it](mailto:info@studiosteffan.it)