Special Edition No.3:

UD2022 Conference

**Final special edition with 6 more selected papers from the
International Universal Design Conference
held 7-9 September 2022 in Brescia, Italy**
All papers are open access

Brescia Declaration for Universal Design

The Brescia Declaration is a working draft until the end of October. **Have your say** on this international document by using this template.
The Declaration is a statement of the state of play in universal design and the need to progress the concepts further. It is written in the context of the recent pandemic and how this has highlights the gaps in equity and inclusion. The Declaration is on the downloads page of the UD2022 conference website. Organisations that agree with the final Declaration can show their support by providing their logo.
The document was drafted by Ger Craddock, Chief Executive, Centre for Excellence in Universal Design in Ireland.

Can I Get There? Can I Play? Can I Stay? Creating an Inclusive

Playspace Guide in Australia

This paper explains how a playspace guide was developed using universal design principles throughout the process and in the final product. The focus was on the intended users of the guide rather than on the users of playspaces. The process was educative for all involved through peer learning and information sharing. The authors are Jane Bringolf and Phillippa Carnemolla who write from the perspective of participants in the process, not leaders.

From the abstract: The New South Wales state government launched their inclusive playspaces policy in 2017. A guideline document was proposed but a guideline does not guarantee implementation. Consequently, an inclusive design process for developing the guide became the strategy. The task was to develop a guide that explained the concepts of inclusion and universal design within the playspace context. The project took an iterative and collaborative approach to the design of the guide. Intended users were those involved in creating playspaces, not playspace users per se. This collegial and participative process consisted of a series of meetings and workshops which fostered learning and ideation for all participants. Through this process three underpinning concepts emerged: Can I get there? Can I play? Can I stay?
The result was an inclusive playspace guide that recognized the design guidance required by council personnel in the context of universal design. The process and governance structure provides a good working model to build on.

A Multisensorial Storytelling Design Strategy to Build Empathy and a Culture of Inclusion

Simulating the experiences of people with different disabilities so that people without disability can understand is not new. Various methods and technologies have been developed over the years. These include sight-restricting glasses, restrictive gloves and virtual reality technology. But having low vision is more than not being able to see things - it affects the way space is experienced as well.
This paper, by Janice Rieger and Marianella Chamorro-Koc, explains the multisensorial experience of the Wonderous Goggles.

Abstract

The Wondrous Goggles project is a multisensorial storytelling design strategy to explore the experiential world of people who are blind or have low vision, with the aim of raising awareness about inclusive places for work and play. The need for this exploratory storytelling design strategy is predominantly educational, as a tool to inform

designers, policy makers, and technology developers of how people with blindness or low vision experience public spaces.

The Wondrous Googles are specifically designed to facilitate an understanding of the navigational and spatial perception of people with low vision. During use, the Wondrous Goggles enable the user to gain a sense of limited vision and provide a vehicle for the wearer to embark upon a process of feeling, sensing, and reflecting while listening to the narration of someone who has navigated the space with low vision.

Unlike other technologies that create virtual reality, or an augmented reality based on vision alone, the Wondrous Goggles create a multisensorial storytelling experience through the lived experience of a person with low vision, to gain an understanding of people's lived experiences in navigating public spaces, in order to create cultures of inclusion.

[Designing Hospitals Through the Lens of Universal Design. An Evaluation Tool to Enhance Inclusive Healthcare Facilities](#)

Hospital buildings need to meet the needs of a diversity of patients, medical and administrative staff, visitors and contractors. Inclusion in this case goes well beyond access into and throughout the hospital. Inclusion in this instance is about comfort, orientation, and communication as well as accessibility.

This paper discusses the wellbeing of hospital users and how universal design can be applied and measured. The study was carried out in the United States and Italy and resulted in a tool for measuring the quality of the environment in terms of universal design.

From the abstract: The present research proposes an evaluation tool to support designers and decision makers in the adoption of universal design to develop healthcare facilities suitable for a wide range of users.

Several methodologies have been adopted: an in-depth literature review on the current state of knowledge on universal design evaluation, workshops and focus groups with both users and experts, and the analysis of four hospital case studies.

The first version of the tool was applied to an American hospital and validated in an Italian pilot case study. The research outlines a tool called Design for All A.U.D.I.T., able to evaluate Physical, Sensory-cognitive, and Social qualities based on a hierarchical framework with criteria and indicators based on universal design.

The framework evaluates the different areas of the hospital from outdoor to indoor spaces, allowing hospital administrators to act to improve the well-being of users. The analysis provides a report of the facility status and design strategies to support designers for new projects or buildings renovations.

The tool could represent a decision support system in the national and international

context, where many hospitals are not newly built. Further research will include application in different facilities and building typologies, aided by the flexible structure of the tool, which allows measurement of the environment's quality in terms of universal design.

Universal Design in Housing in Australia: An Example of People Power

Basic access features are now mandated in the latest edition of the Australian National Construction Code. This achievement took 20 years of dedicated advocacy against the backdrop of strong industry lobbying for the status quo. The paper follows three previous papers and could be the final chapter in a long fight.

While the features are mandatory, not all states are ready to adopt these changes. Also, the features are very basic and will not meet the needs of an ageing population. Hence, advocates continue their work.

The paper has lessons for other jurisdictions and was written by Margaret Ward with input from Jane Bringolf.

Abstract: This paper follows three previous ones which have reflected on the grass-roots campaign in Australia to mandate a basic access standard in all new housing. The original negotiations with government and the housing industry for this reform were at first disingenuous then reluctant despite human rights obligations.

A tenacious campaign over two decades by user stakeholders, researchers, and principled housing providers finally convinced political leaders to mandate national access provisions for all new housing in the National Construction Code. The paper discusses what assisted and hampered this campaign. It then discusses why politicians eventually favoured the interests of ordinary people over the self-interests of the housing industry.

The Importance of Providing Captions Suited to Language Proficiency in the UDL Classroom

They type and style of video captioning can have a positive or negative affect on learner comprehension. And one type does not suit all learners. That means captioning systems should be tested with diverse learners under different conditions. That was one of the findings from the study presented in this paper.

From the abstract: Captions have been found to benefit diverse learners, supporting

comprehension, memory for content, vocabulary acquisition, and literacy. Captions may, thus, be one feature of universally designed learning (UDL) environments. The primary aim of this study was to examine whether captions are always useful, or whether their utility depends on individual differences, specifically proficiency in the language of the audio.

To study this, we presented non-native speakers of English with an audio-visual recording of an unscripted seminar-style lesson in English retrieved from a University website.

Our secondary aim was to compare the effects of different types of captions on viewer comprehension. We created three viewing conditions: video with no captions (NC), video with premade captions (UC) and video with automatically generated captions (AC).

Our results showed an overall strong effect of proficiency on lecture comprehension, as expected. Interestingly, we also found that whether captions helped or not depended on proficiency and caption type. The captions provided by the university website benefited our learners only if their English language proficiency was high enough.

When their proficiency was lower, the captions provided by the university were detrimental and performance was worse than having no captions.

For the lower proficiency levels, automatic captions (AC) provided the best advantage. We attribute this finding to pre-existing characteristics of the captions provided by the university website. Taken together, these findings caution institutions with a commitment to UDL against thinking that one type of caption suits all. The study highlights the need for testing captioning systems with diverse learners, under different conditions, to better understand what factors are beneficial for whom and when.

Metropolitan MaaS and DRT Schemes: Are They Paving the Way Towards a More Inclusive and Resilient Urban Environment?

The one-size-fits-all approach to public transport design is being challenged by excluded users in the form of a user-centred approach to design. This paper discusses two schemes - Mobility as a Service and Demand Responsive Transport from a universal design perspective. The authors argue that the pandemic is a catalyst for re-thinking public transport in terms of services and infrastructure, and to move beyond the notion that public transport is just for urban areas. This paper comes from Italy.

From the abstract: Mobility-as-a-Service and Demand-Responsive-Transport schemes are promoting progressively a user-centered approach. The pandemic has enhanced this new way of thinking, thus presenting an opportunity to develop a new paradigm for a more sustainable and resilient transport system.

This paper discusses the main features of MaaS and DRT schemes to assess if they

can cope with universal design principles. To re-think metropolitan mobility as a service shaped to user's needs, and to redefine transport supply as a complex puzzle, is an opportunity to overcome one of traditional public transport problems: low mobility demand, whether it be due to sparsely populated areas or connected with specific demands of targeted population categories.

Hence this paper recalls some of the recent DRT experiences and on-demand mobility strategy to discuss how this new user-centered approach is acting on the marginalization of remote territories and fragile user categories.

The choice to develop a MaaS scheme could re-shape metropolitan mobility as a comprehensive and global mosaic made by multiple pieces, thus making the entire system more resilient. This enables more sustainable "niche" services as well, thus opposing the present unsuccessful approach of creating ad-hoc options, focusing indeed on the user's request to travel from point A to point B, without the need to define the traveller as an urban resident, commuter, disabled or not, towards a greater social inclusion and territorial cohesion.
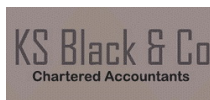

Introduction to Universal Design - free online course

The **Introduction to Universal Design** online course is easy to do and there is a certificate at the end. Try it out - it takes less than an hour to complete. The name you use to register will be the one on the auto-generated certificate, so choose wisely.

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