Universal Design, A Methodological Approach

Hubert FROYEN[1]

Faculty of Architecture and Arts, Hasselt University, Belgium

Biography. Hubert Froyen was born in Belgium in 1947. He studied architecture in Hasselt (B) and in Leuven (B) and anthropology at KU University Leuven (B) and at UC Berkeley (USA). Diploma of Architect 1972. He holds an additional M.Arch. degree from UC Berkeley, 1979. He has been teaching architecture in Belgium since 1973 and appointed professor at PHL Department of Architecture, Diepenbeek (B) in January 1996. On April 1st, 2012 emeritus status was accorded to him. Hubert Froyen is a founding member of the Toegankelijkheidsbureau (Office for Accessibility) and since 2006 vice-president of ENTER (Governmental Center of Expertise for Accessibility). Former director of EIDD.be, the Belgian national membership organisation of the 'European Institute for Design and Disability'. Author of a Dutch language design guide for Adaptable Housing (1994) and a Universal Design Toolkit (2006). In May 2012 he published 'Universal Design. Een methodologische benadering' (Dutch). In November 2012 the English translation, under the title 'Universal Design, A Methodological Approach, A Pathway to Human-Friendly and Elegant Architecture' is published by the Institute for Human Centered Design, 200 Portland st. Boston Ma 02114, USA. He is also holder of the 2004 'Ron Mace / Designing for the 21st Century Award', by the International Conference on Universal Design, Rio de Janeiro, 07-12 December 2004.

Keynote Lecture

The concept of Universal Design (UD) is gradually acquiring global significance in the social, the academic, and the professional field, but there is not yet a methodological framework to structure underlying scientific investigation, and to support related teaching and design practice. How can UD gain the status of a paradigm?

A '*Prescriptive approach*', with laws and regulations, is of crucial importance in guaranteeing basic human accessibility rights but will not suffice at all. Critical thinking is required to draw rational inferences about design, from prescriptive rules that emphasize the ***How-it-should-be-done***, but that do not explain ***How-it-affects-users***.

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[1] Hubert Froyen, M.Arch. PXL / UHasselt, Department of Architecture
University Campus, Building E, B-3590 Diepenbeek, BELGIUM
Hubert.Froyen@PXL.BE

A '*Descriptive approach*' is rather performance based, it requires understanding, it honors architecture as a science-based art and puts emphasis on full creativity (not just requirements), and on multi-sensorial experience & elegance.

In our UD Research & Teaching at the Faculty of Architecture and Arts, Hasselt University, focus lies on a radical descriptive approach and more particularly on the question how contemporary Universal Design Patterns might improve communication between designers and users, user / experts included.

The sometimes-extreme needs of people who are blind or deaf, people in wheelchairs, people with mental disabilities, all challenge the historical concept and the detailing of human-made environments for 'normates'. People with permanent or longtime functional limitations are 'lead users' whose present strong needs will probably become more accepted and more general in built environments in the future. Moreover, since lead users are often forced to design ad hoc, in an attempt to fill the needs and misfits they experience, they can provide new design data, and even valuable design concepts as well.

The described *UD Patterns* supply in a structured way both relevant information about Problem Definitions (**Conflicts**) experienced in dis-abling situations by users, whether they have specific and permanent limitations or not, and related empirically supported Architectural / Technological Solutions (**Resolutions**).

UD Patterns (a), together with specific empirical research (b), simulations (c) and collaborative design with a (relevant) diversity of potential users (d), Universal Design Education (e), Post Occupancy Evaluation (f), and Facility Management (g), are all seen as key elements in the process of systematic elimination of dis-abling situations in built environments.

We view such *UD Patterns* for the built environment not only as carriers of information, but also as Open Content (OC) forums and as tools in the on-going search for temporal social, academic and professional consensus.