How disability can pioneer architectural innovation

Disability is often associated with access legislation rather than a source of creativity for architects. With her ERC grant, Prof. Ann Heylighen wanted to reverse this perspective. Her findings suggest that disability can be a valuable source of innovative solutions in architecture by extending prevailing ways of understanding space and designing buildings.

Through their interaction with the environment, disabled people are able to detect obstacles and appreciate spatial qualities in the environment that most architects are not attuned to. The experience and insights of people who are visually impaired or who are diagnosed with autism or dementia can complement and enrich the professional expertise in this field. They can draw attention to features we may all sense but never can formulate as well: for instance the non-visual qualities of a room (temperature, sound, air displacement); or features that (dis)connect or regroup people in a building.

In her project, Prof. Heylighen explored a new multisensory design approach in architecture, with the view to improve the quality of buildings and develop innovative design concepts. Working with visually impaired people, her team developed visuo-haptic design models to represent space taking their experience into account. The dialogue they initiated between disabled people and architects contributed to the overall discussion on inclusive design.

Prof. Heylighen also used her ERC Proof of Concept grant to enable disabled people to “rent out” their spatial experience to inform architects’ design process. This service – in line with the concept of social innovation – will help architects design more inclusive buildings (e.g. museums, shops, restaurants), respectful of the diversity in people’s abilities and conditions. This will become even more important as the population ages and more and more Europeans will experience some form of disability.

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Host institution: University of Leuven (Belgium)
ERC projects: Architectural design In Dialogue with disAbility (AIDA); Rent-a-Spatialist
ERC calls: Starting Grant 2007; Proof of Concept Grant 2012
ERC funding: €1.2 million for five years + €150 000