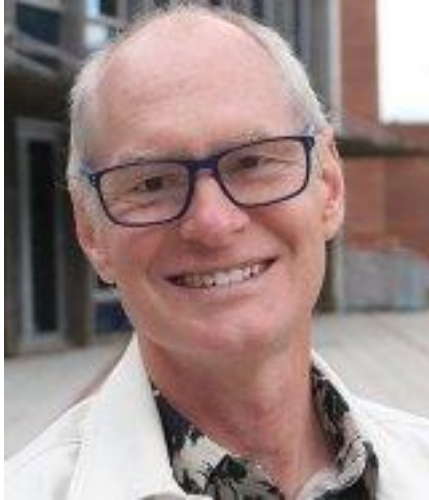


## Emil Erdtman



***PhD in Rehabilitation Engineering and Design, Affiliated with Lund University. Emil Erdtman does research on the growth of Universal Design in Sweden. His particular interest is how co-creation and collaboration takes place in policy and design processes. He defended his doctoral thesis at the Department of Design Sciences at Lund University in March 2024. The dissertation explores with qualitative methods the understanding and practice of UD in three urban development projects with participation from disability organisations. Erdtman has earlier worked in many areas within the Swedish disability movement. After the doctoral exam, he got involved in a research project about conditions for migrants with disabilities in the Swedish labour market. He combines this with doing a historical survey about assistive technology. Erdtman has worked with human rights and journalism in Latin America. He has an art studio in Stockholm and is a leader in blind fencing.***

# Co-creating urban development – local Swedish projects guided by Universal design

*Emil Erdtman*

## Abstract

**This chapter summarizes my doctoral thesis about Universal Design (UD) in Sweden, contributing knowledge about the understanding, implementation, and co-creation of UD. The implementation of the UN Convention on the Rights of Persons with Disabilities in Sweden made UD a guiding principle, necessitating research about the practical side of UD. Using qualitative research methods, interviews and group discussions were conducted and participant observation was made in three urban development projects.**

**The understanding of UD was multifaceted: an ethical principle for inclusion of diversity, a vision of an inclusive society, and a unifying of policy perspectives. Participants emphasized flexibility, predictability, and personalized support. UD was linked to accessibility and thus became part of a rationalistic planning model with accessibility as a separate and target group-oriented interest with a focus on regulatory compliance. I conceptualized accessibility as place: planning and control in the present - and UD as space: future possibilities for innovation.**

**When contextualized locally, UD practice will exhibit diverse expressions. Collaboration between municipalities and local disability organizations was formal and established. Different conditions and expectations created tensions about roles and interpretation of**

**disability experience: as information to facilitate processes or part of negotiations to influence outcomes. However, there were conditions for co-creation.**

**Keywords:** *Universal Design, Accessibility, Urban development, Participation, Co-creation*

## **Introduction**

**This chapter aims to yield an extended summary of my doctoral thesis from 2024. Its English name is “Universal design in practice – understanding, implementation and co-creation” (Erdtman, 2024). It is a compilation of four articles in scientific journals (two published and two under review) and contributes to knowledge about user-oriented everyday perspectives on the realisation of Universal Design (UD) in Swedish urban development. The thesis contributes to the research discipline of Rehabilitation engineering and design, as it is performed at Certec, the Department of Design Sciences at Lund University. It connects to the wide research about UD in many disciplines, such as design, architecture, law, pedagogy, geography, ethics, and information and communication technology.**

**My background depiction of UD traced this value-based design for all people and situations to the 1980s when disability activists and architects in the USA criticised the accessibility discourse for focusing too much on regulations and group separation (Steinfeld & Maisel, 2012). Others trace UD to the normalisation movement in the Nordic countries (D’Souza, 2004). With the adoption of UD in the Convention on the Rights of Persons with Disabilities (CRPD) (United Nations, 2006) the concept has evolved into policy. UD is defined in Article 2 and Article 4 urges ratifying states to apply UD in research and development, besides standards and guidelines. Authorities – like**

**municipalities – shall actively involve persons with disabilities, through their representative organisations, in decisions concerning issues related to their lives (Article 4:3).**

**According to decisions from the Swedish Parliament and Government, UD shall be applied as a guiding principle for the disability policy. It is also found in policies for standardisation, procurement, and designed living environments (Erdtman, Rassnus-Gröhn , & Hedvall, 2021). UD is more and more applied in local projects but little is known about the local practice. That was a rationale for my research, as were questions about the involvement of disability experience through collaboration with local disability organisations. I regard participation and collaboration as neutral while co-creation denotes the quality of creative and innovative collaboration by a diverse participation. The research questions were:**

- How is UD understood, especially in relation to accessibility?**
- How are urban development projects , guided by UD, implemented?**
- What conditions for co-creation are there in the collaboration between municipalities and local disability organisations?**

## **Method**

**The articles of the thesis are based on qualitative methods, inspired by ethnography. In total, 55 persons with different social backgrounds and approaches to UD participated in interviews and group discussions. Some interviews were done as go-alongs in city centres and some group discussions as creative workshops designed together with local collaborators. Approximately 100 additional people were involved in participant observation at regular meetings and change-oriented collaborations. Participant – digital**

and direct – observation was made at disability councils, and internal municipal meetings regarding procurement requirements, purchasing, and planning. Fieldwork was done in three Swedish municipalities where three urban development projects were studied, not as compared cases but as different sites of one common setting (Hammersley & Atkinson, 2007).

The studied projects were guided by UD through procurement requirements, collaboration municipality-university, or committed officials. The projects concerned the re-design of a square, a street, and a new library adjacent to a suburban square under re-design. The policy goal of all projects was revitalization of the city life. The cities were mid-sized in the Swedish context, meaning inhabitants between 50,000 and 200,000. Two of the three municipalities collaborated with umbrellas of local disability organisations. All three had municipal disability councils which are municipally controlled advisory boards stemming from a democracy reform in the 1970s.

I participated in the local processes with co-authors, officials, and local disability organizations, arranging reflective workshops in two municipalities. In the third, two workshop days were arranged within a collaboration municipality-university concerning equality. In the thesis, I reflect upon my participation in the processes, as a lecturer, workshop leader, and counsellor. Researchers always affect the environment they study and I tried to contribute positively to the local development. Another dialogue with the field was three Member check-interviews conducted during the analysis phase to confirm and discuss some upcoming interpretations.

Transcribed recordings were together with field notes from participant observation and public documents analysed with qualitative content analysis (Graneheim & Lundman, 2004). The

analysis yielded themes that provide an overall picture of how participants talk about and perceive UD, and what experiences they have with its realisation.

## **Results**

The thesis explores the aspects of understanding, implementation, and co-creation concerning UD. Conversations and observations yielded a picture of a multifaceted understanding. Erdtman, Rasmus-Gröhn, & Hedvall (2021) examine individual understanding of UD by eight persons who were professionally engaged with UD. For them, UD was an enriching but unclear concept. They described UD as 1) a guiding ethical principle that provides direction, challenge, inspiration, and provocation in design processes, 2) a vision and pursuit of an inclusive society for all, and 3) a unifying of policy perspectives – an alternative to fragmentation and “silos” of separated administrations.

When it comes to practice, the participants emphasised flexibility, predictability, and personalised support as parts of UD. Erdtman, Rasmus-Gröhn, & Hedvall (2022) examine based on two digital group sessions the understanding and experiences of UD projects related to education, working life, and housing. 14 persons from such projects conveyed experiences of UD as adapting environments and services flexibly to individual conditions and situations without separate solutions and categorization into impairment groups. They used UD tactically as one of several, partly interchangeable, terms for the inclusion of human diversity. Influencing and initiating critical discussions were more important than battles about words.

## **Collaboration for urban design at local level**

**The two articles under review deal with the implementation of UD in urban development. The everyday experience of UD practice shows diversity. UD inspired new methods but changing municipal practice takes time. A design concept like UD – with aspects of inspiration and provocation – does not immediately dislodge routines of planning, negotiation, and rational management. The focus on regulatory details was far from the overarching vision of UD. Further, UD was associated with a dominant and narrow view of accessibility as a separate and target group-oriented interest with a focus on regulatory compliance of measurable rules. Accessibility was seen as compliance with rules for certain physical objects that affect limited groups. It was a negotiable interest among others, conveying risks of neglecting needs outside this frame.**

**Collaboration with disability organisations occurred separate from other dialogues e.g., with elderly or youth. UD was only connected to impairment despite intersectional ambitions. Further, different expectations on organisations' capacity, and opportunities for influence, conveyed misunderstandings and sometimes disappointment, resignation, and, mistrust. Tensions existed due to professional/experiential divide in expertise. Different views on participation and its relation to disability experience created tensions about roles and interpretations of user perspectives. Officials regarded users' disability experience as valuable for understanding the principles behind accessibility rules but also as information that facilitates processes. They experienced ambiguity about the legitimacy of participants, as did the employees at disability organisations. They doubted about the conditions for influencing the**

process, regarding members as representatives for associations for specific impairments with a position of negotiation.

The analysis yielded two participation styles, develops from two of the rungs at Arnstein's (1969) ladder of participation.

- **Consultation:** The municipal organization is demanded to quickly move forward and wants to facilitate the process by getting ready-made proposals confirmed.
- **Partnership:** Employees of disability organizations collaborated with officials as partners in the administration of and recruitment for workshops and wanted to influence how places should be and asked for constant feedback.

The Consultation model was challenged by forms of Partnership where participants from disability organisations in temporary working groups were called experts. The ambition was a creative process of collaboration between equals but the dominant scheme of formal and established collaboration hindered a development of co-creation. However, despite this inertia and oppositional roles in other endeavours – such as monitoring the CRPD – I found conditions for co-creation. I return to this topic under Discussion.

## **Discussion**

I used pragmatism as a guiding theoretical framework, dissolving dichotomies such as theory-practice, policy-implementation, problem-solving, and goal-means (Simon, 1996). This elicits the mutual development of policy and practice, as opposed to phases of policy and implementation. Without creating a new dichotomy, the concepts of accessibility and UD were clarified in a model drawing on the dynamics of place and space in design literature, e.g., Lefebvre



**(2011). Accessibility is place-bound and rule-oriented, indicating planning and control of compliance for existing places. To not lose sight of aspects of creativity, UD then stands for a future-oriented, creative, and visionary space of opportunities for change. My model is based on the participants' understanding and relates to earlier conceptualizations, especially Hedvall, Ståhl, & Iwarsson (2022), who include usability in a way my participants did not.**

**I recognize the need for clear and sometimes measurable accessibility rules but as applied to all people. Compliance is not the goal but a baseline for usable innovation. UD goes beyond the rules, yielding a higher ambition. As an ethical principle and vision for innovation by co-creation UD is an ideal never reached or completely fulfilled. However, without principles, rules remain minimum obligations. Further, rules must be anchored and applied in local contexts and situations, otherwise the next step in practice will not be taken.**

### **Disability as a resource among other experiences**

**Pragmatism's view of locally developed situated knowledge elicited the contextualization of UD based on local needs and conditions. Understanding and practice differ from place to place but that also develops the concept's relevance.**

**UD in practice is a question of collaboration where different human experiences are integrated in creative processes. Besides knowledge about rules and professional skills, disability experience yields specific knowledge. The ambiguity toward personal stories due to issues with legitimacy and representativity increases the risks of ignoring important experiences. Another tendency in the studied processes was to reduce everyday experiences to one-dimensional explanations based on just impairment. That may hide a more general**

**user perspective where participants are social beings in the revitalization of urban life – the official aim of the projects. Experiences of urban design are not bound to specific impairments and are better reflected by integrating disability with other aspects. Rather than categorising user stories according to impairments, one should see these experiences as different uses, contexts, and aspects of everyday life.**

**Disability remained a driving force for UD and an important testing tool for new design. However, the unifying aspect of UD challenges conventional intersectionality, where categories are crossed but still retained. Hence, an intersectional collaboration between different groups and perspectives must be developed, and more people and situations included in each process.**

### **Universal design as co-creation**

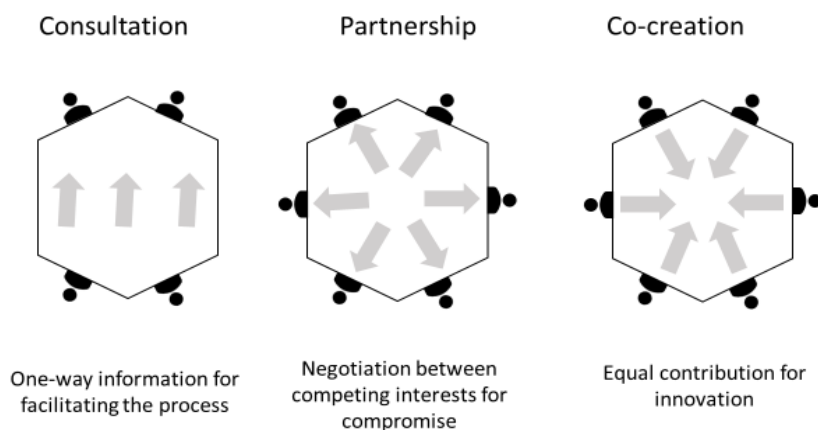
**In policy processes, the role of civil society is to criticise and oppose the authorities. However, design processes are creative and require another kind of collaboration, similar to what Lave & Wenger (1991) called communities of practice. I found Consultation and Partnership, and conditions for co-creation. Thus, it is elaborated here partly visionary but related to the literature: Zamenopoulos & Alexiou (2018) regard co-creation as framing and testing ideas and prototypes, separate from co-design. Lindberg & Nahnfeldt (2017) regard co-creation as shared and open processes of collaboration based on common exploration of problems and solutions.**

**Sanders & Stappers (2008) see co-creation as participatory design related to co-design which is collective creativity for identifying, planning, and realising change. They see the needs to bridge gaps between design and research and between professionals and**

stakeholders, certainly in the fuzzy front end of processes. In Hong Kong, Seo (2022) regards co-creation as knowledge exchange between organisations and professions, revealing a more group-oriented thinking than Swedish, sometimes valuing individual opinions as more genuine than those from organisational representatives (Daram & Hellström, 2019).

In a survey by Voorberg, Bekkers, & Tummers (2015), most studies on co-creation and co-production deal with implementation within education and health, less with initiating projects. Research focuses on processes and influential factors more than outcomes, showing that co-creation has a symbolic function as a value in itself. Hence, we do not know if co-creation meets citizens' needs. However, Pateman (1970) saw gaining self-esteem as a sufficient outcome and Sandin (2022) finds knowledge about other actors in the society as valuable.

Figure 1 illustrates Consultation, Partnership, and Co-creation as three forms of collaboration.



**Figure 1: Forms of collaboration**

**The figure illustrates the following forms of collaboration: Consultation with one-way information for facilitating processes, Partnership with negotiation between competing interests for reaching compromises and Co-creation with equal contribution for innovation.**

**Co-creative ways of collaborating for accessible and usable urban spaces, suggests integrating experiences from a diversity of people and situations in cross-boundary processes, not in separate tracks. Contrary to negotiation, co-creation necessitates equal participation and responsibilities, not oppositional commenting on ready-made proposals or delivering experiences as information. Everyone contributes with suggestions in an equal way, as co-designers.**

### **Mutual responsibility**

**Citizen participation is not always possible. Bottom-up influence is constrained by a lack of time, commitment, and resources (Carmona, 2010). However, social cohesion and community building might be promoted by involving citizens in the design of their surrounding urban environment. Bornemark (2016) describes current citizen dialogues are troublesome. Groups are involved as different target groups. The well-established disability organizations offered an advantage, yielding conditions for integrating disability experiences into urban development processes based on situational and co-creative working methods.**

**Responsibility for collaboration lies with both municipalities and disability organisations. Officials have a formal responsibility to plan according to measurable rules but also to interpret laws in relation to local circumstances. Their moral responsibility encompasses situational judgement concerning visions for opportunities and images of future places coordinated and mediated with users' experiences. Disability organisations may promote social innovation by offering invaluable experiences that challenge traditional perspectives. However, participants must be prepared and develop**

**basic professional knowledge, the ability to imagine future places, and skills of communication and interpreting images and models.**

**Co-creation requires a common knowledge core without dissolving roles of leader, user, etc. Collaboration benefits from different roles as well as different desires, and different ways of experiencing and handling the same environment. Even contradiction might be seen as a driving force for inclusive and flexible design. In dialogue, this means not getting stuck in fixed definitions but letting everyone present their understanding. Instructions should not be too detailed and goals tentative, so emerging interests can reveal new possibilities. Workshops may use surprise, disruptiveness, and provocation to promote a break from ingrained patterns and result in innovation. Thus, UD practice should be flexible and iterative with possibilities of improvement along the way.**

**The disability organisations emphasised urgent accessibility needs but also noticed a lack of long-term learning within the municipal organization. If projects are treated as linear and separate there is a risk of inhibiting the flow of knowledge and of implementing UD in singular symbolic places, like squares.**

### **Conclusion and suggestions for further research**

**My thesis reveals a breadth of the view of UD, expanding the Swedish official line of a guiding principle for the inclusion of diversity to also encompass a future-oriented vision of a society beyond special solutions and target group thinking, and a unification of policy perspectives. Limiting accessibility to an interest for just people with impairments risks omitting invisible needs outside these categories and restricts the room for manoeuvre and dynamic view of disability experience. Long-term and sustainable knowledge**

development and disability experiences should be integrated into knowledge production of current and future processes. Co-creation in some processes requires clarity regarding roles. Officials should be clear about conditions, purposes, resources, and expected roles. Creative design processes require the training of imagination, visualization, and communicating images of future places.

In order not to lose sight of aspects of creativity and co-creation, UD should serve for creative processes, inspiring innovation beyond group interests, regulatory compliance, and human categorization. Otherwise, UD risks become part of a rationalistic and result-oriented planning model. UD, as a collaborative process, transcends conventional categorizations, fostering continuous improvement. Anchored in local contexts, it enriches urban development by integrating diverse user experiences. Beyond mere compliance, UD points to a forward-looking space of possibilities, by navigating through dilemmas and resistance toward sustainable, inclusive, and co-creative processes.

The result demonstrates the importance of reflection regarding the limiting consequences of human categorizations and the need for local adaptation, accepting differences in interpretations, resources, and conditions for practice. UD must continuously be contextualised, understood, and developed differently depending on the locality. The multifaceted understanding of UD can be enriching but also confusing and risks hiding the radical claim of inclusion for all people and situations.

There is a need for further research about categorization and diversity, e.g., how junctions of policies are handled at the local level, e.g., in procurement processes, and how intersectional work can develop without losing important specialist knowledge. Regarding the

**future, different ways of living in cities and other forms of organising civil society should be addressed, including the potential for social innovation from this sector. Research about ongoing UD processes and how they can be supported contributes to and bridges research fields of urban design, architecture, and policy studies. Disability studies can benefit from the positive aspects of benefitting differences and how disability experiences are integrated into creative processes.**

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