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doi:10.3233/SHT1240976

Universal Design and Accessibility as an Act or a State – A Comparison of Policies in Norway, Sweden, and Denmark

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Abstract. 186 countries have ratified The Convention on Rights of People with Disabilities (CRPD) since 2006. Sweden ratified the CRPD in 2008, Denmark in 2009, and Norway in 2013. In the context of the United Nations, the concept of Universal Design (UD) introduced in the CRPD is new. Previously, accessibility was the dominant concept. By ratifying the CRPD, these three countries have agreed to initiate or advocate for research and development aimed at utilising UD when designing goods, services, equipment, and facilities. Additionally, they have committed to encouraging the integration of UD in the formulation of standards and guidelines. As a starting point for a future debate about the research part, this paper studies the uptake of UD in national policy in the three countries. The findings show that the approach in each country differs. Norway quickly developed their own version of UD (that has been critisised by scholars), thus choosing a top-down approach. By contrast, Denmark has been reluctant and is still using the concept of accessibility, waiting for the different sectors to adopt the concept of UD in their own way - as a kind of bottom-up strategy. While Sweden, has chosen another approach between these two strategies focusing on UD as a guiding principle, accessibility, and a third concept: usability. Finally, the paper discusses these approaches in relation to the built environment, using a framework that distinguishes between and act (like a process) and a state (as a result). All three counties are characterised by a dual focus on both act and state in line with the literature; however, the state dominates. The paper argues that we must acknowledge this duality but focus more on the process-related aspect to further develop UD as a human right

Keywords. Accessibility, Convention on the Right of Persons with Disabilities, Scandinavia, Universal Design

1. Introduction

Universal design (UD) as a concept was originally coined by Ron Mace and presented as "a way of designing a build or facility, at little or no extra cost, so it is attractive and functional for all people, disabled or not." [1, p 147]. The concept is

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dynamic and has been adjusted over time. In 1998, UD was defined as "the design of products and environments to be usable to the greatest extent possible by people of all ages and abilities. Universal design respects human diversity and promotes inclusion of all people in all activities of life." [2]. Additionally, it has been emphasised that UD could be viewed as a process [2] highlighting Universal Designing [3].

Today, UD is a human rights concept, implemented in The Convention on the Rights of Persons with Disabilities (CRPD) [4] in 2006. Here "Universal design" means the design of products, environments, programmes and services to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design. "Universal design" shall not exclude assistive devices for particular groups of persons with disabilities where this is needed. "(4; Article 2). The CRPD builds on eight principles, one of them is accessibility [4]. Later, UD was reformulated as "a process that enables and empowers a diverse population by improving human performance, health and wellness and social participation." [5, p. 29] emphasing that UD is not an end state.

Until now, 186 countries have ratified CRPD. Sweden did it in 2008, Denmark in 2009, and Norway in 2013. In a United Nation context, the concept of UD introduced in the CRPD is new. Formerly, accessibility was the dominant concept, see e.g. (6). By ratifying the CRPD, these three countries have agreed to initiate or advocate for research and development aimed at utilising UD when designing goods, services, equipment, and facilities. Additionally, they have committed to encouraging the integration of UD in the development of standards and guidelines.

2. Method

The principle of sectoral responsibility is a fundamental pillar of Scandinavian society and the welfare model. The paper is based on desk research of official documents from the three countries Norway, Sweden, and Denmark. The languages are quite similar unlike e.g. Finnish, which made it possible for the authors to read the other countries documents without translation.

The selection and classification of the document is based on the macro, meso, and micro levels of an analytical model on implementation of UD [7]. The macro level characterises the policy level where UD appears as a value, while the meso level pertains to the instrumental level defined by legal requirements and standards. At the bottom of the model, we find the micro level, where people experience an environment that is accessible and usable.

Another aspect of the framework of the paper is the distinction between an act and a state. When implementing the general concept and political strategy of UD in specific national contexts, the states party to the convention are free to decide how to approach implementation in concrete terms. The three Scandinavian states are both sufficiently similar and different, making it interesting to evaluate whether UD is implemented as an act or as a state, or both. By "act" we refer to the act of universal design*ing* [3] like UD as an activity (a verb), and by "state" we refer to UD as a condition: to be universal designed. Thus, an act is related to a process and a state is present as a result or solution (a noun) that becomes defined and prescribed.

3. Status of UD in the Nordic countries

A summary of the status of the uptake of UD is structured in relation to three countries, followed by a discussion that spans across them.

3.1. Norway

The term Universal design was first mentioned in 1997 in a booklet published by the Council for Disabled Persons at state level [8]. In this rather thin booklet, UD was introduced by the Norwegian concept "universell utforming" [8]. Norway's strategy for implementing UD across different contexts and political levels has involved governmental action plans, as well as its incorporation into law, technical specifications, and standards. The first Action Plan was introduced in 2004, whereas the most recent is covering the period 2021-2025. There are two definitions of UD in Norway, the CRPD definition and the definition used in the Equality and Anti-Discrimination Act [9], and in the Planning and Building Act [10].

The particular Norwegian definition was introduced in a legal report published as an attachment to the white paper 'Equal Status and Accessibility (Likeverd og tilgjengelighet)[11] which served as the preparatory work for the Discrimination and Accessibility Act [12]. This law was later repealed and integrated into the Equality and Anti-Discrimination Act in 2018 [9]. Accessibility and accommodation are viewed as a requisite for equality, as described in the purpose section of the Equality and Anti-Discrimination Act [9]. CRPD was ratified by Norway in 2013 and signed already in 2007, prior to the adoption of the Norwegian Discrimination and Disability Act [12]. Therefore, the particular Norwegian legal definition, which reads more like a minimum standard, is to be interpreted in light of the CRPD definition.

There are two issues with the Norwegian strategy we want to discuss here. The first relates to the use of action plans as a top-down strategy for implementation. The second is the focus on physical barriers in implementing UD through the specific Norwegian legal definition. We will use the thematic report Universal Design: Clarification of the concept [13] as an example of top-down strategy. This thematic report was translated into English and other languages. The report is the product of a dialogue with NGOs and governmental institutions. It was published in 2007 and refers to the CRPD, but the CRPD definition of UD is not used, although Norway signed the convention March 2007. However, the thematic report delimits UD to concern only physical and technical environments. In doing this, the Norwegian government, in a top-down process, changes the content of UD, simply stating that this is how the concept is to be understood. By ratifying the CRPD, Norway took on a responsibility to support research on UD as defined in the convention. Through the action plans and calls from national directorates, there has been funding for smaller projects, but few, if any, more comprehensive interdisciplinary research projects.

Fifteen years after the first Discrimination and Accessibility Act came into force, there have been some notable improvements, such as new ferries designed according to technical specifications for UD. However, there have been fewer comprehensive changes that strengthen the human right situation for persons with disabilities, particularly regarding access to education, paid work, public space, transportation, culture and services.

At the macro level, Norwegian national law interprets UD more narrowly than the CRPD. The technical specifications of the Planning and Building Act are national, representing the macro level. However, these specifications are implemented by local authorities, institutions and practitioners which corresponds to the meso level. At this level, the duties of these authorities and institutions in implementing UD need to be more predictable and grounded in research and knowledge. Some improvements at the meso level can be seen, such as enhanced access to buildings, public spaces, and transportation due to the implementation of law and standards. Nevertheless, much remains to be done, especially ensuring seamless access to resources and arenas. At the micro level there have been improvements with regards equal accessibility, but we lack knowledge about what works, why, and for whom.

3.2. Sweden

Sweden differs from Norway in its interpretation and implementation of UD. In 2019, UD was put forth as a guiding principle for the realisation of the Swedish disability policy, stated as "To do the right thing from the beginning" [14, p.97]. By planning and designing society based on the whole population, one can avoid having to make adaptations and special solutions later down the line. Overall, Swedish disability policy is closely aligned with the CRPD and how, e.g., the term UD is used there. The approach is more bottom-up than top-down, i.e. more governing than government.

In Swedish policy, UD is used alongside the terms accessibility and usability. On a macro level, this entails applying UD as a value-based concept in national policy and guidelines. UD is also used outside of disability policy. As an example, systematic work based on UD is highlighted in the national architecture and design policy, "Policy for Designed Living Environments" [15]. It is important to note that in Sweden, UD is not defined or used as a measurable concept. Instead, UD is used together with the terms accessibility and usability, which can be assessed or measured. Both these terms have been implemented in Swedish regulations and guidelines for many years. One example is the Swedish Planning and Building Act, where accessibility and usability are used, but not UD. Chapter 2, §3 states that planning according to the act should support "a social good living environment which is accessible and usable for all groups in society" (our translation) [16].

On a meso level, the Swedish municipalities are encouraged to base their work on UD. In 2017, the Swedish Association of Local Authorities and Regions, introduced UD as part of a positioning paper meant to guide the municipalities and regions work [17]. In Sweden, some barriers are called "Easily Eliminated Obstacles" ("enkelt avhjälpta hinder"), a definition that was introduced in Swedish legislation in 2003 [18]. In most cases, removing an easily remedied obstacle is the municipality's responsibility, but the legislation is national and was introduced to meet the national goal that public spaces and environments should be accessible for all [19]. The requirements concern both the elimination of existing obstacles [18] and the accessibility of new buildings, places, and environments [20].

The three terms UD, accessibility and usability are used together also on a micro level. While UD sets the direction and mindset, focusing on inclusion and non-stigmatisation, accessibility and usability make it possible to operationalise and realise UD in practice [21].

3.3. Denmark

In contrast to the other countries, Denmark has been cautious about implementing UD despite the ratification of the CRPD. UD was present in one of the visions in the National Disability Action Plan launched by the Government in 2013 [22]. It is interesting to note that even though Denmark has been criticized for not following up on this action plan [23] there are no current plans to create and implement a new action plan [24]. The focus of this summary is the built environment because of the deficiency of UD in other fields.

An expert group is working on a white paper for a new architectural policy. Lately, this group has identified several central societal challenges, where an architectural policy can and should play an active problem-solving role, and UD is mentioned as a future focus [25]. Concerning architecture at the macro level, the building act has been revised 24 times since 2008 without implementing UD. In 2010, a goal to promote accessibility (handicap-tilgængelighed) was included [26].

At the meso level, the building act results in the buildings regulations. Practitioners understand accessibility as the prescriptive requirements in the Building Regulations. This means special solutions for a specific group: tactile guidance paths for blind people, ramps, and spacious lavatories for wheelchair users [27]. The new version of the building regulations from 2018 has removed the word 'accessibility' but maintained the prescriptive requirements. UD is mentioned in a guideline about the users and is characterised as a methodology that acknowledges a wide view on the users meaning everybody, encouraging the building sector to think in architectural solutions that encompass a wide range of potential user needs [28]. Thus, a website about UD was launched in 2019 to support the building sector's shift in practice [29]. It was ordered by the agency behind the building regulations, however the report from 2020 stress that the website will promote "...education and information on the accessibility requirements of the Building Regulations [24, p. 9]. Besides an annual grant to Aalborg University for research and this website, the state does not fund any research about UD [24].

Related to this meso level, we find among frontrunners different understandings of UD e.g. 'not just about ramps' and as a design driver for social sustainability [30]. In addition, two organisations have recently embraced UD. The Danish Association of Construction Clients (DACC) integrated UD in their policy on social sustainability in May 2024 [31], and Disabled People's Organisation Denmark (DPOD) launched their first policy on UD and accessibility in February 2024. DPOD understands UD as the sum of a palette of accessible solution [32]. The situation in Denmark is characterised by a buttom-up approach to UD.

4. Concluding discussion

The implementation of UD in the three countries differed in strategic approach and interpretation of UD. In this discussion of the implication of the different approaches, we focus on policies in relation to the built environment, and we use the distinction between an act and a state.

In both Norway and Sweden, the areas of planning and buildings are combined into a single act, while they are separated in Denmark. The situation on the macro level varies across the countries. Norway has developed its own legal definition of UD, implemented at the macro level. While Sweden and Denmark have not implemented the term UD at the macro level in their building acts, Sweden operates with UD as a guiding principle

in other policies on that level. In the concrete implementation of CRPD, Sweden focuses on accessibility and usability for all people, and Denmark focuses on accessibility for people with disabilities even though the word accessibility is not used.

There exist a kind of choice in Denmark because it is up to the individual actor in the building sector to define and engage in UD, which might create a kind of ownership different from when a concept is imposed from the top, and a dynamic understanding of UD. However, the result can also be different individual understandings and definitions, leading to confusion.

Regardless of approach, the meso level in the three countries is defined by technical specifications, e.g. maximum gradient of a ramp. The specifications are strikingly similar (33). Even though Norway claims to have a UD mindset, these technical specifications do not cover the diversity of the users' needs and situations in relation to equal accessibility and usability.

What Norway and Denmark have in common is an understanding of UD and accessibility as a state rather than an act, while in Sweden, UD on the contrary is a principle guiding the acts. This difference in focus has profound implications for how UD is understood and practiced on macro, meso, and micro levels. To focus on a state is not unique because, as the introduction has shown, the UD discourse is characterised by a certain confusion regarding UD as an act or a state, or both. There is a risk that practitioners working with UD find themselves torn between several competing interpretations and tendencies related to UD. Some of those in the "UD as a state camp", have previously worked based on guidelines and technical specifications related to accessibility, as this has been the existing practice in the planning and building field. By contrast, those in the "UD as an act camp" are more interested in strategies and policies, striving to advance the implementation of the CRPD.

The understanding of UD as primarily a process concern can be traced back to Mace (1) in the mid 80's and has repeatedly over the years been highlighted by Steinfeld and colleagues (2, 3, 5). In the Nordic context, several researchers have developed this aspect e.g. [34, 35]. It is problematic if UD is reduced to a state, as we can see in the findings where the state dominates. As a state it requires a certain precision. Telling a passenger that a station is UD is not usable information because the passenger does not know how UD has been interpreted in the design of the station.

We argue that UD in the future should be understood more as an act than as a state if we are to avoid a reproduction of measurable accessibility (prescriptive requirements) and instead ensure a conceptualisation of UD that embraces human diversity and contributes to the creation of a society grounded in citizenship for everybody. However, we cannot only focus on the act; we must acknowledge and explicitly highlight the duality of the concept as both an act and a state to avoid further confusion and ambivalence. Thus, we argue that we need this dynamic. Moreover, we recommend policymakers and practitioners to become aware of the dynamic between an act and a state and use this distinction in the continued development of UD as interdisciplinary and inclusive processes.

Looking at the future for UD, we aim to further research and develop the knowledge regarding UD as a human rights concept included in the CRPD. In 1985, Mace expressed that "Universal design is ultimately about changing attitudes throughout society, emphasizing democracy, equity, and citizenship. Universal design denotes a process more than a definite result." (cited in 36). The CRPD calls for a shift in attitude emphasing the human right aspect of UD alongside accessibility as a guiding principle of the convention.

References

- [1] Mace R. Universal design Barrier Free Environments For Everyone. Designers West. 1985, 147-152.
- [2] Story MF, Mueller JL, Mace, R The Universal Design File: Designing for People of All Ages and Abilies. 1998. North Carolina State University, Releigh, Center for Universal Design
- [3] Steinfeld, E., & Tauke, B. (2002), Universal Designing. In Christophersen, J (Ed.), 17 Ways of Thinking and Teaching, pp. 165-189. Husbanken
- [4] United Nations, Conventions of the Rights of Persons with Disabilities. 2006. New York: United Nation
- [5] Steinfeld E, Maisel JL. Universal Design. Creating Inclusive Environments. Hobroken, New Jersey: John Wiley & Sons, Inc. 2012.
- [6] United Nations. Standards Rules on the Equalization of Opportunities for Persons with Disabilities. 1993. New York: United Nation
- [7] Lid, I.M. Citizenship and universal design, in, Lid, I. M., Steinfeld, E., & Rembis, M. (Ed.s.), Rethinking Disability and Human Rights: Participation, Equality and Citizenship, Routledge, New York, USA, 2023; pp. 9-24. doi: 10.4324/9781003052708-11
- [8] Aslaksen, F., Bergh, S., Bringa, O. R., & Heggem, E. K. (1997). Universell utforming. Planlegging og design for alle. In R. f. funksjonshemmede (Ed.). Oslo: Dep.
- [9] The Norwegian Government, Ministry of Culture and Equality (2018) Equality and Anti Discrimination Act https://lov/data.no/dokument/NLE/lov/2017-06-16-51
- [10] The Norwegian Government, Plan-og bygningsloven. https://lovdata.no/dokument/NL/lov/2008-06-27-71 accessed June 22 2024
- [11] Norges offentlige udredninger. Likeverd og tilgjengelighet Rettslig vern mot diskriminering på grunnlag av nedsatt funksjonsevne. Bedret tilgjengelighet for alle. NOU 2005:8 https://www.regjeringen.no/contentassets/e2361e34e995496589470336829751cc/no/pdfs/nou20052005 0008000dddpdfs.pdf accessed September 19 2024
- [12] Discriminaton and Accessibility Act 2009: https://lovdata.no/dokument/NLO/lov/2008-06-20-42
- [13] The Norwegian Government, the Department of environment. Thematic report. Universal design, Clarification of the concept. 2007
- [14] Government of Sweden. (2019). Styrkraft i funktionshinderspolitiken SOU 2019:23
- [15] Sveriges Regering. (2018). Politik för gestaltad livsmiljö, Prop. 2017/18:110.
- [16] Sveriges Regering. Plan- och bygglag 2010.
- [17] SKR, Swedish Association of Local Authorities and Regions. 2017. Positionspapper, funktionshinder och delaktighet.
- [18] The Swedish National Board of Housing, Building and Planning. (2013). BFS 2013:9 HIN3.
- [19] Sveriges Regering. (2000). Prop. 1999/2000:79—Från patient till medborgare en nationell handlingsplan för handikappolitiken.
- [20] The Swedish National Board of Housing, Building and Planning. (2011). BFS 2011:5, ALM2
- [21] Hedvall, Ståhl, & Iwarsson, forthcoming.
- [22] Den danske regering, Handicappolisk handlingsplan 2013 Et samfund for alle. 2013
- [23] Committee on the Rights of Persons with Disabilities. Concluding observations on the initial report if Denmark. 2014 https://www.sm.dk/media/8315/convention-on-the-rights-of-persons-with-disabilities.pdf accessed June 22
- [24] Committee on the Rights of Persons with Disabilities. Combined second and third reports submitted by Denmark under article 35 of the Convention, due in 2020. 2020. https://www.sm.dk/media/37966/danmarks_rapport_til_fns_handicapkomite_2020_t.pdf
- [25] https://kum.dk/kulturomraader/national-arkitekturpolitik
- [26] https://www.retsinformation.dk/eli/lta/2016/1178).
- [27] Grangaard S, Gottlieb S. Opening the Black Box of Accessibility Regulation. In Lill I, Witt E, editors, 10th Nordic Conference on Construction Economics and Organization, Emerald Reach Proceedings Series: Emerald Publishing Limited, 2019 2:365-370. doi.org/10.1108/S2516-285320190000002013
- [28] Building Regulations 2018 https://bygningsreglementet.dk/ accessed June 22
- [29] Grangaard, S. How to communicate Universal Design to Architects on a New Website? A Reflection on the Type of Knowledge Requested. Universal Design 2021: From Special to Mainstream Solutions, Studies in Health Technology and Informatics, 2021, pp. 301-314. https://doi.org/10.3233/SHTI210406
- [30] Grangaard S, Lygum VL. 'Frontrunners' Understanding of Universal Design in Architecture. In Garofolo I, Bencini G, Arenghi A, editors, Transforming our World Through Universal Design for Human Development 2022 297:28-35. IOS Press. Studies in Health Technology and Informatics. https://doi.org/10.3233/SHT122081
- [31] https://bygherreforeningen.dk/baeredygtighed/ accessed Juni 21 2024
- [32] https://handicap.dk/files/media/document/Tilg%C3%A6ngelighedspolitik%202024%20__.pdf accessed Juni 21 2024

- [33] Grangaard S, Øien TB, Rasmussen JD. Bredmose A, Holmegaard R. Sammenlignende undersøgelse af reguleringen af den fysiske adgang til og i bygninger (tilgængelighed) i Danmark, Sverige og Norge. 2023. Institut for Byggeri, By og Miljø (BUILD), Aalborg Universitet. BUILD Rapport Bind 2023 Nr. 09
- [34] Lid, I.M. Citizenship and universal design, in, Lid, I. M., Steinfeld, E., & Rembis, M. (Ed.s.), Rethinking Disability and Human Rights: Participation, Equality and Citizenship, Routledge, New York, USA, 2023; pp. 9-24. doi: 10.4324/9781003052708-11
- [35] Müller, L. Bridging the Gaps. Realising Human Diversity in the Built Environment through Universal Design. (PhD dissertation), Lund University, 2023
- [36] Iwarsson S. Housing Adaptations: Current Practices and Future Challenges. In Söderback I editor. International Handbook of Occupational Therapy Interventions. Dordrecht; New York: Springer; 2009. p. 63–69.