

CONCEPTUAL CHALLENGES BETWEEN UNIVERSAL DESIGN AND DISABILITY IN RELATION TO THE BODY, IMPAIRMENT, AND THE ENVIRONMENT

WHERE DOES THE ISSUE OF DISABILITY STAND IN THE PHILOSOPHY OF UD?

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Received: 27.05.2011, **Final Text:** 17.10.2011

Keywords: Universal Design; design for all; disability.

Universal Design (UD), which is grounded politically and sociologically in the long historic struggle of the anti-discrimination and disability rights movements in the United States that occurred between 1970's and 1990's and the market-oriented necessities of an aging society, has been defined as 'design for all' people to the greatest extent possible, differentiating it from earlier concepts of adaptable, specialised or accessible design. UD argues that the design of a built environment must be usable by 'all people', regardless of age, gender, capability, cultural origin or socio-economic status. UD incorporates some principles to achieve 'design for all' solutions.

Although UD is originated and developed within the discourse on disability, its emphasis on the locution 'design for all', along with the writings of proponents of UD, suggests a deliberate broadening but at the same time avoiding giving focus on the issue of disability. Further evidence of this interpretation of UD's approach can be found in the design products that UD promotes. Most examples of products designed in accordance with UD principles are usable by people with diverse 'disabilities'. Advocates' writings reveal that the conceptual foundations of UD rely socio-politically on the 'rights-based' and 'non-discriminatory' attitudes, which have helped to consolidate the ontologically 'non-stigmatising' and 'inclusionary' status of UD. These attitudes have indirect implications for disability.

This paper aims to scrutinize UD's concern with 'design for all' by going beyond its promissory design-related claims and unveiling its underlying conceptual and strategic challenges in relation to disability discourse, referring to the historical developmental process of the discourse of disability and its incidence in UD's emerging processes.

Referring to the historical developmental process of disability, one could claim that the formulation of the ideals of UD was influenced by the long path of demedicalisation and universalisation of the status of disability. The social constructionist approach of the Social Model and the Minority

Group Model of disability that signify the environmental conditions as the primary source for enabling/disabling of the people with diverse disabilities throughout the demedicalisation process of disability inspired the conceptual strategies and authenticity of UD. Descriptive formulations of disability, developed within the international agencies of ICIDH and ICF in the last three decades, have consistently influenced and supported the universalising and anti-discriminatory strategy of UD. The Social Model's distinction of 'disability' and 'impairment' substantiated UD's concern for a non-stigmatizing, inclusionary attitude which the term 'design for all' suggests.

This paper evaluates UD from within by drawing attention to its strong and weak sides referring to the conceptual challenges that arise directly or indirectly with reference to the historical development process of the disability discourse.

INTRODUCTION

Recently, the developing tendency of Universal Design (UD) which gained momentum during 1990s is so widespread that it has become influential not only in the field of design -industrial design, architecture and city planning- but also in various public services such as healthcare, transportation, communication, education systems in addition to the built environment regulations of municipalities. Ostroff, who is one of the primary advocates of UD, ten years after her initial article of 'Universal Design: A New Paradigm' (2001) in her recent article entitled 'Universal Design: An Evolving Paradigm' (2010, 1.3) underlines that the evolution of the UD paradigm widens its applications not only in design products but also in programs and services in different sectors of life such as business and education. Similarly, Steinfeld, (2010, 3) has pointed out the multiple applicability of UD. Steinfeld, one of the primary advocates of UD, for whom UD is applicable in built, social, and virtual environments including such community infrastructures as transformation and public accommodation; all types of products, ranging from utensils and clothing to automobiles; as well as information technologies, and such business and professional practices as customer services, advertising, education, housing policies, and legal regulations.

UD, or 'design for all', which has also been associated with life-long design, transgenerational design, and inclusive design, etc., is a term that was initially used by the pioneer Ronald Mace (1). Mace's definition of Universal Design (1998) as 'the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design' has been commonly used in all related texts. Mace, a wheelchair-user, architect, and the founder of the Centre for Universal Design in North Carolina, had a significant role in the establishment of UD and its principles, which can be described, in short, as follows (Table 1).

1. Equitable use: The design is useful and marketable with diverse abilities
2. Flexibility in Use: The design accommodates a wide range of individual preferences and abilities.

1. It is claimed in some texts that the terminology of 'design for all' has its root in Europe (Coleman, 2001, 4.3; Grosbois, 2001, 27.5-27.8). This is especially underlined also in Steinfeld's (2010, 2) recent article on Universal Design.

3. Simple and Intuitive Use: Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level.
4. Perceptible Information: The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.
5. Tolerance for Error: The design minimizes hazards and the adverse consequences of accidental or unintended actions.
6. Low Physical Effort: The design can be used efficiently and comfortably and with a minimum of fatigue.
7. Size and Space for Approach and Use: Appropriate size and space is provided for approach, reach, manipulation, and use regardless of user's body size, posture, or mobility.

In brief, in accordance with these seven principles, it has been claimed in the UD literature that the physical built environment is the source of all problems and that the physical built environment needs to be designed in a more equitable, flexible, intuitive, perceptive, safer, easier, and accommodating way for the betterment of all people. These seven principles suggest that the primary aim of UD is not limited to some design-related parameters that the terms flexible, intuitive, perceptible, safe, easy, and accommodating connote. These design-related parameters more readily identified and correlated with the socio-political ideal of 'equality', which is presented in the first principle of UD. That is, the concept of 'design for all', appears to draw primarily from the first principle.

Advocates of UD refrain from focusing on disability and have shifted their focus to all with the goal of inclusion, disregarding a person's status as able-bodied or disabled. As, we see in nearly all statements of prominent advocates of UD, the issue of disability is a driving force and can be inferred from the examples provided in the clarifications of the mission of UD (2).

With reference to all users, the advocates of UD appear to assume that if any design product is suitable for people with diverse disabilities, it is also suitable for able-bodied individuals. Based on this understanding, the issue of disability has been kept in mind as an invisible intention to reinforce the generalisation strategy of UD. Behind this generalisation strategy -aside from its architectural objectives- lie implicitly, 'socio-political' and 'ontological' conceptual challenges that transcend the practically formulated, multidimensional, definition of 'design for all' or UD.

First of all, UD as a design strategy, inherently represents its design status and exposes its critical standpoint. The term all represents a diverse group of individuals, long accepted and considered standard and typical throughout the history of design and architecture such as masculine, fit, balanced, well-proportioned, ideal, able-bodied. In addition, the term all supports the idea of the 'celebration of diversity' in a sociological sense. Moreover, the term all implicitly represents the socio-political status of UD as a rights-based, non-exclusionary movement for equality and anti-discrimination that characterised the disability activist movement of the 1970s and 1980s in the United States. Furthermore, the politically anti-discriminative and non-exclusionary status of UD have been reinforced by the ontological perception of the 'inclusionary' form of 'non-stigmatization'

2. See for example, Sandhu (2001); Coleman (2001); Story (2001); Balaram (2001).

1: Equitable Use:

The design is useful and marketable to people with diverse abilities

- Provide the same means of use for all users: identical whenever possible; equivalent when not.
- Avoid segregating or stigmatizing any users.
- Provisions for privacy, security, and safety should be equally available to all users.
- Make the design appealing to all users.

2: Flexibility in Use:

The design accommodates a wide range of individual preferences and abilities.

- Provide choice in methods of use.
- Accommodate right- or left-handed access and use.
- Facilitate the user's accuracy and precision.
- Provide adaptability to the user's pace.

3: Simple and Intuitive Use:

Easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level.

- Eliminate unnecessary complexity.
- Be consistent with user expectations and intuition.
- Accommodate a wide range of literacy and language skills.
- Arrange information consistent with its importance.
- Provide effective prompting and feedback during and after task completion.

4: Perceptible Information:

The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.

- Use different modes (pictorial, verbal, tactile) for redundant presentation of essential information.
- Provide adequate contrast between essential information and its surroundings.
- Maximize "legibility" of essential information.
- Differentiate elements in ways that can be described (i.e., make it easy to give instructions or directions).
- Provide compatibility with a variety of techniques or devices used by people with sensory limitations.

5: Tolerance for Error:

The design minimizes hazards and the adverse consequences of accidental or unintended actions.

- Arrange elements to minimize hazards and errors: most used elements, most accessible; hazardous elements eliminated, isolated, or shielded
- Provide warnings of hazards and errors.
- Provide fail safe features
- Discourage unconscious action in tasks that require vigilance

6: Low Physical Effort:

The design can be used efficiently and comfortably and with a minimum of fatigue.

- Allow user to maintain a neutral body position.
- Use reasonable operating forces.
- Minimize repetitive actions.
- Minimize sustained physical effort.

7: Size and Space for Approach and Use:

Appropriate size and space is provided for approach, reach, manipulation, and use regardless of user's body size, posture, or mobility.

- Provide a clear line of sight to important elements for any seated or standing user.
- Make reach to all components comfortable for any seated or standing user.
- Accommodate variations in hand and grip size.
- Provide adequate space for the use of assistive devices or personal assistance.

Table 1. The expanded version of The Principles of Universal Design. Copyright © 1997 NC State University, The Center for Universal Design Version 2.0 4/1/97 Compiled by advocates of universal design, listed in alphabetical order: Bettye Rose Connell, Mike Jones, Ron Mace, Jim Mueller, Abir Mullick, Elaine Ostroff, Jon Sanford, Ed Steinfeld, Molly Story and Gregg Vanderheiden.

of people with disabilities. At the same time UD rejects the specialized, accessible, adaptable design approaches due to their negative stigmatizing effect on people with disabilities in the built environment.

The implications of the design status of UD can be further clarified. Refraining from a focus on users with disabilities, UD prefers to emphasize that UD must not be 'adaptable' and 'specialized'. That is, UD rejects the adaptable and specialized design approaches that respond to the requirements of people with disabilities and to the elderly people in particular. As described in the Factsheet of the Centre for Universal Design at North Carolina State University (NCSU, 2006), UD does not see 'adaptable' design, that is remodelling buildings and adjusting products in a short time period to make them accessible to people with disabilities, as its central aim. This aim means that, UD products are to be designed with proper structures and materials, from their origins and made usable by all people, regardless of their ability. In this adaptation process, UD also rejects the use of assistive technologies, which are considered to be specialized part of adaptable design (Mace, 1998). However, while rejecting the mechanical systems (assistive technological) of adaptable design products, UD asks users with diverse abilities to adapt or modify themselves to the 'designed-for-all products', which have been designed in the adaptable form (not in specialized form) for diverse users. With this approach it is not the physical environment but individual bodies, able-bodied or disabled, that are to be 'adaptable' when using UD products.

Similarly, UD does not unify its aim with 'accessible design' which UD advocates see as limited to disability and focused only on function and mobility and responding to the diverse necessities of people with disabilities in social life and the built environment. Furthermore *accessible design* is considered a kind of specialized design that is regulated by some design standards and rules. For Steinfeld (2010), UD implies a broader agenda, expands on the goals of accessible design to provide benefits for all, not just a specific protected class of people. Knecht (2004), points out that accessibility is a mandate, UD is a movement. For her, accessible and adaptable environments are covered and controlled by codes, regulations and standards (e.g., the American Disabilities Act, ADA), unlike UD, whose designs incorporate guiding principles (Knecht, 2004). In short, it can be claimed that some, but not all, 'accessible' and 'adaptable' design products can be considered UD products.

To better understand the multidimensional nature of UD, the practicality of its strategy and generalisation rationale a scrutiny is needed to clarify the formation process of UD and to place the reasoning that lies behind it in a historical context (3). Since it originated from the disability movement it would be helpful to refer to the historical conceptualization of disability that developed within the critical discussions mutually developed on both sides of the Atlantic in the last three decades. The critical debates (by academics, specialists, activists, and associations) that grew out of the disability rights movements in the United States and Great Britain were influential in shaping the international agenda. Parallel to the developments achieved in Great Britain and United States, the World Health Organisation (WHO): the International Classification of Impairments, Disabilities and Handicaps (ICIDH-1980) and the International Classification of Functioning (ICF-2001) have a strong power in the dissemination and clarification of the definition of disability worldwide. Considering the development of the concept of UD within

3. Since designing as a process of realization of purposive ideas aims ultimately to be revealed in concrete or abstract forms of design products, what kind of intentional design attitude is developed in the generalisation attitude of 'design for all' in UD, while questioning the diversity of experiences of being disabled in a built environment, particularly, from the point of the relationship between disable body and environment? How does UD conceptualize the issue of disability within its non-exclusionary strategy and how are the broad and diverse experiences of impaired bodies -acting, using, managing etc.- considered in order to achieve equality and inclusion in the generalized design attitude of UD especially when the relationship between body, impairment and environment is concerned? These are such questions that are considered in the text.

the historical context of disability can reveal the conceptions as well as the ambiguities or contradictions related to UD strategy especially for promoters with design background. The strengths and weaknesses that will be pointed out at the end of the paper may be accepted as a critical evaluation of UD from inside.

HISTORICAL PROCESS OF DEMEDICALISATION OF DISABILITY

In the international agenda the conceptualisation and clarification of the definition of disability has been developed either within the formal context of the World Health Organisation (WHO) or with the help of social scientists', specialists' and activists' intellectual contributions from different parts of the world. In the international arena, the literature on disability reveals several differences in the way that disability is conceptualised within different countries. In particular within Great Britain and the United States the concept of disability has been formulated differently depending upon some social, political and conceptual debates. These critical debates have found resonance worldwide and have influenced each other.

Regarding the relationship between 'body', 'impairment' and 'environment', there have been two challenging and competing views of disability in the historical discourse: bio-medical and social. Historically disability has been an evolving construct associated with sin and the divine punishment in the medieval period and explained in terms of biological deficit in the later periods. In modern period, the focus has been given, particularly, to the problems of social oppression, cultural discourse and environmental barriers.

In medicine, the biological reality is used to identify all forms of illness and impairment. The medical viewpoint pathologizes disability, understanding human beings in relation to a normalised view of ability -an ideal type- and in turn, regards those with impaired ability as abnormal victims of tragic circumstances in need of curing, fixing, and adapting in order to better integrate them into the wider society (Simmon, Blackmore, and Bayliss, 2008, 733, 740). The historical construct of 'norm', 'normalcy', and the 'ideal' goes back to seventeenth century Europe which gave rise to the problem of the hegemony of normalcy in the developing periods by means of technological and medical scientific developments (Lennard, 2010) (4).

Lennard (2010, 11) notes that the concept of the average man was first used in 1835 in France not just in a physical sense but also in moral sense. For Lennard, the term 'average' had become, paradoxically, a kind of 'ideal', a position that also represented the physical body, beauty and goodness, with deviations in the body seen as distortions from the average and constituted with ugliness in body, and a state of sickness within the aim of eugenics (Lennard (2010, 11-4). The biological or medical definition of disability was created following the introduction of the concepts of 'norm' and 'average' within the development of 'political arithmetic' of modern 'statistics', which was used widely in the area of public health during the 19th century (Lennard, 2010, 12).

Medicine is the business of reconstituting normality and health, which undergoes change depending upon the developments that have achieved in medical science (Scully 2002, 48). Scully (2002, 49) noted that during the Cartesian period, models of the human body were reduced to a set of biomechanical and biochemical problems to understand their function as basic science. Modern medicine gradually developed in a more objective

4. The social process of disabling arrived with industrialisation and with the set of practices and discourses that are linked to the eighteenth and nineteenth century notions of nationality, race, gender, criminality, sexual orientation and so on (Lennard, 2010, 10).

and quantitative way with the collection of data related to human health condition. In modern medicine, 'abnormality' is defined in terms of 'deviation' from the normal state and consequently, in medical practice, the problematic of normality has been reduced to agreeing on the 'magnitude of deviation' from certain numerical 'normal' ranges outside of which a person should be considered ill or disabled (Scully, 2002, 49). This and further developments in medicine, such as in molecular biology, genetics, and rehabilitation technologies, have played an important role in the conceptualisation of the issue of disablement in social world. The strategies developed by the international agencies of WHO and in its units of ICIDH and ICF have drawn from this conceptualisation of disablement.

Between 1970 and 1990 the contributions of not only medical scientists but also social scientists and disability specialists, both from the UK and USA were important during the formulation of the modern definition of disablement within the WHO. One of the primary aims of the WHO was to reorganise the ongoing contradictions concerning the definitions and overlapping concepts of disability, impairment, and handicap in all sectors of life everywhere in the world. In 1976 in recognition of the developments in the rights of the people with disabilities ICIDH was established within WHO. The goal of this organisation was to clarify the controversially conflated concepts of 'impairment', 'disability' and 'handicap' which had been a source of social misunderstanding. Four years after its establishment in 1980, ICIDH announced that impairment, disability, and handicap -three different levels of pathological consequences- are related to different levels of experience and of individual awareness (Masala and Petretto, 2008, 1235). Accordingly, ICIDH defined 'Impairment' as any loss or abnormality of psychological, physiological, or anatomical structure or function (i.e., blindness). ICIDH defined 'Disability' as any restriction or lack of ability (resulting from an impairment) to perform an activity in the manner or within the range considered normal for human beings (i.e., inability to read because of blindness). 'Handicap' was defined as a disadvantage for a given individual that results from an impairment or a disability and that limits or prevents the fulfilment of a role that is normal (depending on age, sex, and social and cultural factors) for that individual (i.e., a lack of barilla system in the educational setting) (Masala and Petretto, 2008, 1235). This triple definition of the concept of disability suggests a duality as being both individual / medical at the same time environmental. The term 'handicap' implicitly focuses on the physical environment and the way that the disability is associated with social and functional limitations that an impaired body encounters in interacting with the physical environment.

ICIDH's 1980 definitions, the first definition of disability on the international level, were criticised because of inherent ambiguities in the meaning, particularly in the term handicap which underwent reformulations that took nearly ten years to finalize. Masala and Petretto, (2008, 1235-7) pointed out that the British sociologists were influential in formulating the definitions and that they reflect British ideas during the construction years of disability ideas in the ICIDH between 1976-1980.

BRITISH SOCIAL MODEL OF DISABILITY: UNION OF THE PHYSICALLY IMPAIRED AGAINST SEGREGATION (UPIAS)

Between 1970 and 1980, paralleling the work of WHO and ICIDH the disability rights movements became more active worldwide, placing the issue of disability in a social context. In Britain, the Union of the Physically

5. The UPIAS was created as a critical stand against the unfair income problems of the disabled people (Finkelstein, 2007, 5) and the ideas developed by this union became one of the important contributions in the discourse of disability worldwide.

6. The term Social Model was first used by Oliver (1996, 30).

7. Shakespeare, (2006) finds it unfair to equate ICIDH with medicalised approach to disability (Anastasiou and Kauffman, 2011, 368).

8. Anastasiou and Kauffman (2011) point out the generalisation tendency of the disabilities in UPIAS has a close relation to the formation of the UPIAS members who are all with physical impairments. They note also that those members used their personal experiences to construct propositions that they generalise to all individuals with diverse disabilities. The generalisation of personal experiences as a kind of common knowledge is criticised by Anastasiou and Kauffman (2011, 367), due to their power of publicly known status. They claim that publicly expressed ideas should be subject to 'testing', regardless of whether their originators or proponents have disabilities.

9. Oliver (1996, 31-2) underlines that the genesis of the social model comes from its contributors who are disabled themselves and who have immediate connection to their own experiences.

Impaired Against Segregation (UPIAS) was established in 1975 (5). UPIAS - an intellectual and political organisation - developed the internationally known 'Social Model' of disability as an alternative to what UPIAS members called the 'individual' or 'Medical Model' of disability (6). The Social Model, simply, suggests that what makes an individual disabled is not the impaired body of the individual but the social and physical environment. The Social Model was popularized in the international arena through its identification with the social movement of political activism of disability.

The UPIAS which was critical of the triple WHO-ICIDH definition of disability as a version of the Medical Model, worked to reform the concept of disability. This criticism was rejected by ICIDH members complaining that during the studies of ICIDH one aim was to demedicalise the issue of disability and recognise the social consequences of health-related matters with a focus on the idea of '*handicap*' (Anastasiou and Kauffman, 2011, 368) (7). These rejections remained weak against the stronger claims of Social Model whose goal was to demedicalise the problems of disability while highlighting environmental, social, and physical conditions as the primary source of the problems of disability. It is claimed in UPIAS in 1975 section 14, that,

"In our view, it is society which disables physically impaired people. Disability is something imposed on top of our impairments; by the way we are unnecessarily isolated and excluded from participation in society. Disabled people are therefore an oppressed group in society" (Shakespeare, 2010, 267).

The above quote underlines the social difficulties that individuals with impairments experience in their attempts to take part in life. Although the above description originally focuses on people with physical impairments, it is soon extended to include all forms of impairments, including, sensory, and intellectual in the following years (Barnes, 2000) (8). Moreover, the above explanation emphasizes a duality of "disability" versus "impairment". Disability is viewed from the standpoint of social exclusion and is not defined in merely functional terms, but is also defined in terms of social exclusion. Social exclusion is a separate experience, distinguished from the impairment caused by the body's physical limitations. That is, while impairment is individual, private and related to the physical self, disability is a social construct that is structural and public (Shakespeare, 2010, 268). This distinction between impairment and disability has, frequently been compared to the feminist distinction of biological sex (male or female) and gender (masculine and feminine), and like gender, disability is perceived as a culturally and historically specific phenomenon different from the universal and unchanging essence of biological body-sex or the impairment of the body (Shakespeare, 2010, 268; Corker and Shakespeare, 2002, 3).

One of the leading advocates of the Social Model, Oliver, M. (1996) contributed to the development and dissemination of this socio-political model with the stressed polarity between what proponents call the individual and Medical Model and the Social Model of disability. Oliver created a table of the key concepts to emphasize the binary oppositions between the Medical and the Social Model of disability (Oliver, 1996, 34) (9). He describes the individual model of disability as the personal tragedy theory of disability which for him locates the problem of disability within the individual and sees the causes of this impaired individual's problems

as stemming from functional limitations or psychological losses (Oliver, 1996, 32). In contrast to the Medical Model, the Social Model of disability includes all the things that impose restrictions on disabled people ranging from individual prejudice to intuitional discrimination, from inaccessible public buildings to unusable transport systems, from segregated education to an exclusionary work environment, and so on (Oliver, 1996, 33). The Social Model became an effective tool in rights-based movements to force society to remove not only institutional and economic barriers but also attitudinal and environmental barriers and to provide anti-discriminatory policies. In this model the priority is to provide a physical and social environment that is 'free' of all 'barriers'. Shakespeare notes the relationship between the political strategy of barrier removal and the Social Model. In the following quote, he claims that the Social Model,

“...enabled the identification of political strategy, namely barrier removal. If people with impairments are disabled by society, then the priority is to dismantle these disabling barriers, in order to promote the inclusion of people with impairments. Rather than pursuing a strategy of medical cure, or rehabilitation, it is better to pursue a strategy of social change perhaps even the total transformation of the society” (Shakespeare, 2002, 5).

The social concerns of disability had also become one of the central issues within the disability studies in United States, where anti-discrimination movements and the rights of minorities were at the centre of the political agenda during the late 1970s and 1980s. While American's *Minority Group Model* corresponds to the British Social Model, with similar underlying ideals and similar ways of defining the problem, there are some key differences between the two models. While the first one relies on mainly political substances the second one concerns with sociological issues. These two models have provided the guiding frameworks of disability theorists since the 1970s, who have pressed, with increasing strength, for disability to be seen as a form of social oppression. The appropriate response therefore is political, a question of civil rights, rather than one that merely provides medical and social care (William, 2001, 125). The ideas of *Minority Group Model* remained relatively less influential in contrast to the UPIAS's propagation of the Social Model when the ideas were being promoted in the international arena. For Williams (2001, 134-5) the difference between the British and the American concerns with disability were based on different motivational grounds. For example in Great Britain, UPIAS was reacting to the social welfare system and a well-meaning liberal-functional sociology; whereas in the United States, the motivation was derived from civil and constitutional rights. The political concern of the *Minority Group Model* relies on the belief that minority group who aspire 'social inclusion' in society are oppressed and discriminated against, which excludes them socially. Shakespeare and Watson (2001, 556) point out that the differences and similarities between the American *Minority Group Model* and British Social Model reflect the political differences that lie behind each model. They argue that in the United States, civil rights which included the rights that minority groups have to equal access in all areas of society, was prioritized; while in Great Britain, the elimination of oppressive societal barriers was prioritized (Shakespeare and Watson, 2001, 555-6). They claim that despite these differences, “...the philosophical distinction is glossed over in practical disability politics because the minority group and social model perspective are closely entwined in radical consciousness...” (Shakespeare and Watson, 2001, 556). In both cases the goal was to eliminate environmental barriers either in social or

10. The difference and similarities between UK and USA and their social concern of disability has been widely discussed within the context of disability politics. For example Shakespeare points out that “North American theorists and activists have also developed a social approach to defining disability. However, as is illustrated by the US term ‘people with impairments’, these perspectives have not gone as far in redefining ‘disability’ as social oppression as the British social model. Instead, the North American approach has mainly developed the notion of people with disabilities a minority group, within the tradition of US political thought. While the work of Hahn (1985, 1988), Albrecht (1992), Amundsen (1992), Rioux et al. (1994), Davis (1995), and Wendell (1996) explore important social, cultural, and political dimensions of disability, we argue that none have made the firm distinction between (biological) impairment and (social) disability which is the key to the British social model” (Shakespeare, 2002, 4).

11. The difference in the use of terminologies is not limited to the terms of ‘disabled people’ and the ‘people with disabilities’ in UK and USA. For example, in UK the term ‘learning difficulties’ is preferred to denote the conditions like ‘dyslexia’. In USA ‘learning disabilities’ is preferred to indicate dyslexia.

12. There are a few commentary works that discuss the relation between social constructionism and the Social Model of disability within the disability discourse. Anastasiou and Kauffman (2011) in their paper concerning the implications for special education argue about the close conceptual framing of social constructionism and UK social model disability. Siebers (2011) in his recent book *Disability Theory*, also discusses the development process of the theory of body by giving reference to social constructionist thinking tradition.

physical terms (10). The relatively minor differences between the Great Britain and the United States concerning the social dimension of disability are revealed in the terminologies used in related texts.

RELATED TO TERMINOLOGIES CONCERNING DISABILITY

It would be helpful to explain some differences in the preferred linguistic usage of term *disability* in different countries. It should be noted that the evolution and accepted practice of linguistic usage has changed as much in response to political positions and pressures as to conceptual and theoretical developments (Albrecht, Seelman, and Bury, 2001, 3). In Great Britain, especially following the introduction of the Social Model by UPIAS, the issue of disability began to be perceived as a social construct. At this point the term ‘disabled people’ (i.e., people who are disabled by the social and physical environment, not just by their bodies) was selected as the correct term. The term ‘disabled people’ implies the oppression experienced in the community or social environment as well as group identity (Albrecht, Seelman and Bury, 2001, 3). In the United States, on the other hand, emphasis is placed first on people as indicated by the term ‘people with disabilities’. In this preference in choosing this term, human/person centeredness became important however, this centeredness still implies biological and medical considerations because the emphasis is given to impaired conditions of people primarily. In British approach the people- first language refers to the term of ‘people with impairments’. For Albrecht, and et al., (2001, 3) the term ‘people with disabilities’ emphasizes the historical root of American exceptionalism, the importance of the individual in society, and disability as being something not inherent in the person. Ironically, however, an equally vocal group has more recently denounced people-first language as offensive, claiming that powerful nondisabled people promoted it, particularly advocates for persons with developmental disabilities (Albrecht, Seelman and Bury, 2001, 3). Shakespeare, allusively claims that ‘medical model thinking is enshrined in the liberal term ‘people with disabilities’ and in approaches that seek to count the numbers of people with impairment, or to reduce the complex problems of disabled people to issues of medical prevention, cure or rehabilitation’ (Shakespeare, 2010, 268). These two different terms are often used interchangeably in many texts and may confuse readers. In this actual study, I used both terms depending on the sources and the means of usage that is indicated in the related literature either from Great Britain or United States (11).

SOCIAL CONSTRUCTIONISM AND SOCIAL MODEL OF DISABILITY

Nothing is developed in a vacuum and without ideological grounding. The ideals of the Social Model of disability, rather than being proposed as a theory, was constructed as a practical tool (Shakespeare, 2010; Oliver, 1996), was initiated with the ideals of socialism, and has its roots in the social constructionist approach of social science (12). Social constructionism, which focuses on social interaction and language as a form of social action was introduced by Berger and Luckmann in 1966 and has its roots in the early 20th century (Max Weber, Emile Durkheim, Herbert Mead, Robert Merton, and others). Berger and Luckmann’s anti-essentialist idea is based on the symbolic interactionism, which claims that as we people construct their own and each other identities through everyday encounters with

13. Social constructionism is a movement which has arisen from and influenced by variety of disciplines and intellectual tradition and it has a multidisciplinary background ranging from humanities, literary criticism, social psychology criticism, etc. (Burr, 1995, 15).

14. In such approach the emphasis is given to the interactional process rather than structures which means knowledge is seen not as something that person has or doesn't have, but as something that people do together (Burr, 1995, 9). Burr points out the parallels between deconstructionism and social constructionism due to the power of the means of languages in the interactions of people (1995, 18). For him, both approaches pay attention to the performative power of language such as system of signs, visual, oral or auditory productions (rather than constructive work of the individual) and for that reason deconstructionism can be accepted as an axiomatic example of social constructionism.

each other in social interaction (in the socially constructed world) (Burr, 1995,13) (13). This brings to mind the definition of disability as a form of social construct defined by Social Model, as outlined above. Social constructionism has gained impetus within the last 30 years, especially with influence of Postmodernism and Poststructuralism, and especially with the influence of the ideas of Foucault.

Social constructionism, with theoretical foundation in both sociology and psychology, stands in opposition to positivism and empiricism –the assumptions that knowledge can be created only by objectively unbiased observation - in the social science tradition. Social constructionism is also critical of traditional essentialist attitudes, such as, the belief that individuals' ideas result from their cultural environment that is that the social and cultural milieu determines an individual's knowledge and beliefs. Social constructionism is based on the idea that "...there can be no such thing as an objective fact ... all knowledge is derived from looking at the world from some perspective or other, and is in the service of some interests rather than others" (Burr, 1995, 6). It focuses on social practices and interactions and it is concerned with the functional role of language in social and cultural exchanges that continually change (Burr, 1995, 8-9, 13) (14). Burr, differentiates micro-social constructionism, which is related to the relational embeddedness of individual thoughts and actions from macro social constructionism, which is mainly related to the more general social structures and power relations, including, for example, the ideas related to social inequality, race, gender, and disability etc. (Burr, 1995, 21-2).

Like many other social problems, health and illness are significant worldwide issues, and have been a central theme of social constructionist approach. According to the social constructionist view, the status of the body as either ill or healthy depends on the social environment more than biological conditions. To explain the anti-biomedical perceptions of the body, Burr claims,

"Illness cannot be seen as a fixed entity but as something that necessarily varies according to the norms and values of the particular social group that one is studying. But the physical status of the body as functional or malfunctioning can also be shown to be context-dependent. For example, a person may have lost the use of their legs through a spinal injury and must use a wheelchair. Typically, they may have difficulty getting into some buildings, getting up stairs a using some public facilities. They may find that in their own home they need help to use the bathroom and are unable to use their kitchen. They are 'disabled'" (Burr, 1995, 36-7).

As Burr explains similar to Social Model approach the environmental conditions are the primary source of the disability, not the individual bodies themselves. To emphasize the de-medicalisation of the problem and underline the social reasoning behind the problem of disability Burr continues and claims that,

"We could argue that if we were to tailor the entire built environment specifically to the abilities of the wheelchair user, there would be no sense in which it would be meaningful to refer to them as disabled. In fact, would we even regard their physical condition as impaired? Perhaps the rest of us would be seen as disabled by our lack of wheels? Disability is therefore a function of the environment in which people are constrained to live, not a quality that belongs to them as persons... Furthermore, this environment is inevitable fashioned according to the values and practices of some people rather than others. If we look at environment and ask for whom it may be

problematic in some respect, we immediately see that it is often those groups of people who had less power in society. Apparently trivial examples show this up. Being unable to read the small print on food packets or take the lid off a vacuum-packed jar is not only a problem for those with specific disabilities but for many people of advancing age. Heavy-duty work gloves (for handling DIY materials etc.) don't come in small sizes, presenting a difficulty for many women and for man of small stature. We can give ourselves all kinds of reasonable explanations for the status quo, but in the end it comes down to the values of dominant groups. If the world was run by children, what sort of physical environment would we live in, and what difficulties would that pose for adults? So health, illness and disability are not only socially created; they are sustained by social practices that often serve the interests of the dominant groups in the society" (Burr, 1995, 38).

It can be clearly seen from the above that the ideals of the Social Model of disability are conflated with the social constructionist perception of disability, and that which for both disability is a problem created by a social and physical environment that is not well organised or designed for the use of people with disabilities. What is also emphasized is that those people who are oppressed and powerless in society are disabled due to environmental conditions. This argument is presented as the rationale of both the Social Model and Minority Group Model of disability. It also expresses the belief that environmental conditions as a source of reasoning of the condition of disability are separate from the physical conditions of impairment. The separation of 'disability' from 'impairment' parallels the ideals of the Social Model disability.

The social constructionists' criticism of the biomedical approach gained strength with the influence of Foucault's critical concern with 'bio power', a concept that also influenced the vision of the advocates of the Social Model. Foucault (1989, 1980) argued and criticised that the social and historical conditions that shape the modern perception of body as an object for medical examination imply 'power/ knowledge' relations as a 'bio power' in the modern world. Foucault regarded normalisation as the central component of bio power. Bio power is tasked with continuous regulation, classification, control of anomalies, and a corrective mechanism (Tremain, 2008). Foucault outlined the concepts of 'governmentality' and bio-power in seventies when he pointed out that the medical duality of normal/abnormal gradually became the critical norms of the judicial and disciplinary systems/patterns of society in the employment of sovereign power, inclusive/exclusive, in various institutions of life. (Tremain, 2008, 7-9; Nadesan, 2008, 93-137). He emphasises that medical scientific knowledge (biological) has become influential (as bio-power) in all sectors of social life, including, for example, education, administration, employment, and judicial systems where people were judged, categorised, and valued as being normal/abnormal or being able/disabled. Foucault's critical argument which was welcomed by social constructionists as well as Social Modelists, as it has been an important standpoint against Medical Model of disability (15).

15. Although some of the supporters of the Social Model reject the parallels between Social Model strategies and Foucault's critical idea of bio-power that for Foucault, problem of disability can not be rehabilitated by some social systems due to the grounding power of knowledge. In the disability discourse Foucault's ideas were referred to in order to underline the strong side of Social Model while explaining the negative impacts of biomedical sources of problems in society (Tremain, 2008).

In fact, during the 1950s and 1980s and still in most cases, the bio-medical perception of disability has been reflected in the regulations of the social settings of legislations, judicial systems and so on during the formulations of some precautions against marginalisation of people in disability conditions. The bio-medical vision of some classifications served as a reference point in the worldwide welfare and economic aid systems such as social security or disability insurance systems. In these applications, the problem of disability was not seen as an individual problem of an

impaired body, placing responsibility on individuals for their reduced integration into society. Related to this understanding the pathological situation must either be cured or treated in order to normalize the body, if not, it must be supported with aid systems. As pointed out above by social constructionists and Social Modelists, this perception creates a duality of the normal body /impaired body, able body /disabled body that is the source of hegemonic bio power in the segregating practices of society. How is it possible to overcome the privileged condition of an able bodied that creates hegemony (through the unequal bio-power relations) in the social and physical environment? This is a question for social scientists and politicians as well as the designers and architects who deal directly with physical environmental problems to grapple with. Is it possible to tackle the social and ethical problems of disability through design in an indeterministic way, to achieve social justice through design? Like the Social Model advocates, the advocates of UD have also attempted to address these questions while formulating their guiding principles. .

CRITICISM OF THE SOCIAL MODEL AND DEFINITION OF DISABILITY IN TERMS OF EMBODIED IDENTITY

In the 1990s, not long after the dissemination of the Social Model of disability as a political tool in the international arena, social scientists politicians began to levy criticism against it. The actual condition of impairment became the central concern while questioning the limits of the effects of the environmental factors on the problem of disability. Thomas points out that there are 'impairment effects' that are not created by society, that are the direct results of being impaired (Williams, 2001, 129; Shakespeare, 2002, 9). Shakespeare, a former supporter of the Social Model disability, "who has genetic condition of achondroplasia, the commonest form of dwarfism, has admitted that he first considered the biological factors when he began suffering from serious back pains because of his genetic condition" (Anastasiou, and Kauffman, 2011, 369). His personal experience of pain due to his physical impairment has changed his views of the Social Model, making him a critic of the one-sidedness of this model. Williams argues that to say that disability is a form of social oppression and that the body has nothing to do with it is solipsistic (Williams, 2001, 135). Shakespeare, (2002, 5) admits that the very success of the Social Model became its weakness, which derives from the simplicity in the slogan of "disabled by society not by our bodies". This slogan had a rallying cry for which many, from service providers to activists who indirectly or directly supported the idea that the actual physical impairment was not as important as the oppression of society. Shakespeare, (2002) claimed honestly that in reality the issue of impairment was never actually ignored as one could see from most of the activists' and academics' writings, not the social and physical environment. The writings of other people with diverse disabilities, like Shakespeare's, also express personal experiences of pain and limitations caused by physical impairment.

Following the long path of the duality of Social and Medical models of disability, in its latest version, it is described non-dualistically as something that is simultaneously both a personal trouble and a public issue (Williams, 2001, 123). Following the emphasis on the significance of the experiences of impairment and disability from the disabled person's point of view, a more 'medical sociological' vision has emerged (Williams, 2001, 124). Williams, (2001) explains the ever-evolving multi-paradigmatic nature of

the issue of disability from a historical perspective and hints at how the issue of embodied experiences, experiences of illness and impairment have been reconsidered, inevitably, following the sociological and political discourse regarding the Social Model of disability. He also pointed out that narrations from insider voices that have been depicted in the experiences of the people with chronic illness and disabled people are very important in understanding the dynamic relationship between bodily conditions and the complex social processes in the living environment (Williams, 2001).

Ultimately disability exists within individual lives and experiences; however, the type and characteristics of these experiences and impairments are so varied that it becomes almost impossible to define any kind of *identity* of people with diverse disabilities. Therefore, it is even more difficult to provide proper social environments for the diversity of disabilities. To underline the variety of implications of the personal identity and psychological well being of disabled people Shakespeare, claims that,

“... removing environmental obstacles for someone with one impairment may well generate obstacles for someone with another impairment. It is impossible to remove all obstacles to people with impairment, because some of them are inextricable aspects of impairment, not generated by the environment. If someone has an impairment which causes constant pain, how can the social environment are implicated?” (Shakespeare, 2002, 18).

The concept of the diversity of impairments gradually expanded into the idea of *universality* of disability and impairment. This idea arose from the reconsideration of the individual people's experiences and their limitless variations. Shakespeare dwells on the ontology of disability and stresses that no one's body works perfectly, or consistently, or eternally. 'We are all in the same way impaired' (Shakespeare, 2002, 26). With this approach, the issue of impairment is considered as the normal condition of humanity universally. Limiting the types of disabilities, to the exclusion of the general, universal condition, hinders comprehension of this fact.

Diversity of identities, experiences, types of limitations, social reflections are all important parameters when we consider the 'singularity' of the term of the unified label of disability.

“Disability' is a problematic category for scientific purposes ... simply because it constitutes a very abstract and general concept and it refers to a huge range of more specific conditions - hearing, visual impairments, physical disabilities, intellectual disability, emotional and behavioural disorder, autistic spectrum disorders, speech or language impairments, specific learning disabilities, traumatic brain injury, chronic illness etc” (Anastasiou and Kauffman, 2011, 375).

It seems that due to the difficulty of identifying the diverse conditions of disability and disability experiences a strategy of “on-size-fits-all” has developed within the strategy of Social Model's mission and advocacy program. Such a program represents a separation of the diversity of impairment from disability and allies to the social and physical environmental condition. This strategy can be viewed as a shift away from a focus on individual conditions to the strategies and attitudes serving those individuals. That is, programs and organisations that attend to the environmental impacts on individuals with disabilities, are asked to solve those individual problems in a social or political way. It represents that the Social Model creates a practical tactic to simplify rather than going beyond the complexities of the diversity of implications in its considerations. This

approach remains consistent with its grounding of social constructionist understanding.

Shakespeare observes in his recent book, *Disability Rights and Wrongs*, differences between the ideas of people with or without disabilities. As he summarises in one of his speeches,

“... neither the medical nor the social models provide the whole picture. Disabled people lives are complex. Our limitations or difficulties of body and brain do cause us problems. Nobody wants their experience to be medicalized, but nor do we want to reject medicine. Equally, we want to challenge barriers and discrimination. In other words, people are disabled by society, and by their bodies. It is the interaction of individual factors -impairment, motivation and self esteem-, with external factors -the barriers, oppression and expectations and attitudes of other people- which combine to create the experience of disability” (Shakespeare, 2006).

SEARCHING FOR A MIDDLE GROUND

Following the achievements of the Social Model, as well as, the further developments that arose in response the criticism of the Social Model, and accomplishments of the activists and specialists who campaigned for disability rights, WHO attempted to redefine the term disability between 1990-2002 and to develop its initial tripartite definition of ‘disability-impairment-handicap’, which had originated in 1980, in the body of the International Classification of Functioning (ICF). In this attempt, the goal was to ground on the idea of ‘universality’ of impairment as a normal condition of humanity and disability. Disability, in this approach, is a product of both biological and societal constraints. It took almost 10 years to formulate the last version of the definition of disability within the context of ICF. Given that so much effort was expended formulating the ICF definitions, it seems reasonable to assume that these ICF definitions represent a compendium or synopsis of all the developments achieved over the last 30 years. The report of ICF states that;

“The International Classification of Functioning, Disability and Health, known more commonly as ICF, provides a standard language and framework for the description of health and health-related states. Like the first version of definition of disability by WHO ICDH 1980, ICF formulate a multipurpose classification intended for a wide range of users in different sectors. It is a classification of health and health-related domains - domains that help us to describe changes in body, function and structure. ICF concentrates on what a person with a health condition ‘can do’ in a standard environment (their level of capacity), as well as what they ‘actually do’ in their usual environment (their level of performance). These domains are classified from body, individual and societal perspectives by means of two lists: a list of body functions and structure, and a list of domains of activity and participation. In ICF, the term ‘functioning’ refers to all body functions, activities and participation, while ‘disability’ is similarly an umbrella term for impairments, activity limitations and participation restrictions. ICF also lists environmental factors that interact with all these components” (ICF 2002).

In the above definition, there is a shift away from the term disability to *health* related conditions. Instead of concentrating on the issue of disability, ICF focuses on the issue of health and health related conditions, including disability conditions. ICF has become a tool for measuring the functioning of individuals who have a variety of physical impairments. This definition is considered to be a ‘universal’ classification of disability, impairment and

health. The universality of the situation is emphasized while claiming in the ICF report that,

“ICF puts the notions of ‘health’ and ‘disability’ in a new light. It acknowledges that every human being can experience a decrement in health and thereby experience some disability. This is not something that happens to only a minority of humanity. ICF thus ‘mainstreams’ the experience of disability and recognizes it as a universal human experience. By shifting the focus from cause to impact it places all health conditions on an equal footing allowing them to be compared using a common metric – the ruler of health and disability” (ICF 2002).

In justifying its model, ICF identifies the British origins of discourses related to the duality of the Medical and Social Model’s perception of disabilities as a presupposition. By crediting the British formulation of the Social Model as a foundation of its definitions, WHO indirectly validates the British Social Model while searching for an alternative definition for disability. For example, it is summarised in ICF that the Medical model views disability as a feature of a person that is directly caused by individual health conditions and requires medical care, whereas the Social Model sees disability as a social problem demanding political solutions. While searching for an alternative model ICF states,

“On their own, neither model is adequate, although both are partially valid. Disability is a complex phenomena that is both a problem at the level of a person’s body, and a complex and primarily social phenomena.... In other words, both medical and social responses are appropriate to the problems associated with disability; we cannot wholly reject either kind of intervention. A better model of disability, in short, is one that synthesizes what is true in the medical and social models, without making the mistake each makes in reducing the whole, complex notion of disability to one of its aspects. This more useful model of disability might be called the “biopsychosocial” model. ICF is based on this model, an integration of medical and social. ICF provides, by this synthesis, a coherent view of different perspectives of health: biological, individual and social” (ICF 2002).

Although there are philosophical arguments (in post structuralism, feminism, etc.) that have rejected the distillations and simplifications of the dilemma related to problems of disability that ICF expressed, generally, the international community accepted its mission broadly. The above, unified health-based definition seems to have been derived mainly from the politically based Social Model. In drawing from this model, ICF attempts to ‘remedicalise’ the ‘demedicalised’ version of disability relying mainly on the medical conception of health and illness. In point of fact, the convincing pragmatic solution of ICF had resonance worldwide. The attempt to universalize the health or disability conditions, in fact, can be accepted as an underlying paradigm for the setting of UD during 1990s.

EVALUATING UD FROM WITHIN: STRENGTHS AND WEAKNESSES OF UD PREMISES

1. Simplification in the statement of ‘design for all’ expresses both the strength, and at the same time, the weakness of UD (16). The strength of UD, first of all, comes foremost from the practicality of the slogan and its whole-hearted meaning. UD is easily understood for its perceptiveness and sensitivity. The simplicity, practicality, positive implications, and inherent sensitivity have helped the term to be understood throughout the worldwide. Profoundly, ‘design for all’ hints at the mission of its design-based intentions while transcending its lateral meaning. In this

16. Shakespeare in his recent article on Social Model of Disability evaluates the historical development process of Social Model and points out the positive and negative aspects of Social Model by claiming their strengths and weaknesses. This makes the source of inspiration in my evaluation of UD.

way it invites social, political, ethical conceptual challenges, ambitiously, which are open to interpretations and criticisms despite risking losing its strength. UD calls for integration of the diversity of all people while relying on the socio-political mission of 'equality', calling for a positive indication of anti-discrimination and human rights. The political mission of 'equality' within the strategy of 'design for all' raises a question related to the status of UD. That is, as a design strategy does UD has a power to change the socio-political problems of 'equality' by means of design solutions. In fact, this everlasting and extremely challenging question has the potential to create problems for the design status of UD.

2. The structuring of the 7 principles of UD and their contents indicates a duality. It is obvious that UD's design strategy originated and was developed following a critical political discourse of anti-discrimination and human rights. This political foundation is revealed throughout the formulation of the principles of UD. The first principle of UD is defined as 'equitable' use meaning that all design products must be useful and marketable to all people. This aim represents one of the UD's strengths; however, the socio-political ideal of 'equality' has been associated with the other six principles that are directly related to design (i.e., usability features of design) formations. This duality causes a potential internal contradiction in terms of weakness for the status of UD and brings to mind some questions about the adversity of reasoning's behind two different kind of parameters (socio-political at one hand and design related issues on the other hand) in UD.

3. The Social Model's critique of the medical perception of disability and its discriminative separation of normal/ideal from abnormal is supported by UD's critical attitude of taking the normal/standardised/ideal/masculine user as the target user in the ongoing design approaches. This critical attitude is also infused in the term 'design for all', and so is a strength of UD, which considers the problem of disabilities in a direct (even though it rejects to use the term disability) way. This critical attitude, at the same time, implicitly notes that the issue of the diversity of users has not been considered in any design attitude in the earlier periods. In fact, in the 1970s, invaluable studies that emphasized the diversity of users (other than the ideal, masculine user) and user participation in design-related studies were conducted in architecture (17). Despite the fact of its critical stand (actually the issue of disability was not a subject matter, widely, in the earlier design traditions in architecture) we can not see any arguments in the writings of the advocates of UD related to the historical tradition of the social scientific studies in architecture that refer to the diversity of users (i.e. elderly people, children, and people with diverse needs). This centration can be claimed as a weakness of the design-based strategies of UD.

4. The socialisation of the disability as described either in the British *Social Model* or the American *Minority Group Models* definitely empowered the strategies of UD. Actually, we cannot see direct reference to either model especially in the earlier writings of UD. In 2001, in the primary advocate's writings, only a few words, indirectly, refer to these forms of understandings to justify their arguments. This intention may come from UD's more prudent approach to political issues in design-related strategies that reflect the positive side of UD. However, the relation between the Social Model and UD has been considered widely in the writings of promoters (18).

17. Architectural research related to user and user participation in design mostly developed following the criticism of the idealised form of user in a post positivist sense. These studies are based on social-behavioural analysis and subjective opinions of users. The issue of diversity of users, the problem of accessibility, barrier-free approaches related to elderly people, children and disabled people were subject to various researches that had taken place in EDRA (Environmental Design Research in Architecture) series conferences during the 1970s.

18. The duality between medical and social model disability has been widely referred among the supporters' writings about UD. For example Bailey (2007), notes that "Disability Right Movement advocates and Disability Studies Academics, must engage in a dialogue that support and promote the practice of UD to further the elimination of social barriers and assist society to understand the Social Model of disability perspective". Disability and Universal Design: <http://snow.idrc.ocad.ca/content/view/full/409/380/>.

19. The reasoning behind the realisation of social ideas (abstract, insensible and related to intelligible) such as the idea of 'equality' differs from the reasoning behind images (concrete forms, objects, sensible) such as design products etc. is a significant difference that can be discussed at the level of epistemological understandings of both and goes beyond the limit of the discussion in this text.

It is obvious that, like the Social and Minority Group Models, UD turns to the environmental conditions as the source of the problems that all people meet. There are two points in the Social Model that are alien to UD: the Social model is constructed on disability issues directly, and it considers not only the physical environmental problems but also all social environmental problems as the source of the problems of disability. For UD, only the physical built environment poses problems, therefore, UD only considers the problems related to design products (excluding attitudinal and social problems) and their usability parameters are considered instrumentally.

The separation of social attitudinal premises from operative, technical, and instrumental premises is one of UD's strengths because it prevents potential conceptual confusions between the instrumental and the social, political, ethical parameters in solving disability problems (19). However, this position seems to be more legitimate representing an inconsistency, at times, while the proponents of UD stress the ultimate aim of UD as the achievement of 'social justice' (a social, political, ethical parameter) by means of UD (like the Social Model). Ostroff, (2001, 1.5) associated the goals of UD with the idea of 'social justice by design' in her article, 'Universal Design: New Paradigm'. In his recent article, Steinfeld, (2010, 2), defending UD against charges that it is apolitical (a criticism of Imre in 2004), states that UD has an inherently more expansive agenda-design for 'equality', 'social justice' and 'social inclusion'. Going further, he references the Social Model view on disability and associates its premises of 'social participation' and functional 'independence' with UD's ideology (Steinfeld, 2010, 2). Thus, UD conflates with the Social Model ideology in a fundamental sense. Such an explanation suggests that UD has a power to resolve the barriers caused by social attitudes through design strategies. Actually, the situation has parallels with the parameters of the Social Model and connotes a kind of social determinism which is a weakness in UD too. The roots of this perception go back to modern period as pictured above, for example, in social constructionism.

5. As mentioned earlier UD's socio-political non-discriminative position reinforces the ontological premise of UD and it's the 'non-stigmatisation' and inclusionary strategies. UD's principle of 'equality' is linked to non-stigmatising premises of UD (Table 1). Stigmatisation, generally in society is considered as a sign of oppression that is, obviously, against human rights. As far as stigmatisation in disability is concerned, the approach may change depending upon peoples' perception of the concept of 'disability' and 'impairment' and, their relationship to the issue of 'embodiment'. UD advocates claim that the specialised designs or accessible design applications can give elicit a stigmatising response because of labelling in the built environment. Steinfeld, claims that,

"... an individual may avoid building ramp in front of their home, even though it has significant functional benefits, because they do not want to be perceived by others as having a disability or being frail.If all homes were constructed with one grade level entry, for example, there would be no stigma associated with having an accessible entry" (Steinfeld, 2010, 4).

It is seen that 'Design for all' can help to resolve the above functional as well as psychological problem of individuals trying to prevent stigmatisation by avoiding the use of specialised devices and structures. In fact, there are two issues that should be stressed in this statement concerning the perception of stigma. First of all, the issue of disability

20. Steinfeld (2010) in his recent article on UD, starts with an emphasis on the different impacts of impairments and the universality of disability as a responsive (and defensive) remark to the recent discussions on disability discourse. However, the underlying disability image of him seems to be more limited in his exemplifying of the problem.

is not limited to wheelchair users only (20). There are many different kinds of disabilities that require diverse solutions. Second, far beyond the accessibly designed built environment, people with disabilities must deal with stigma due to their impaired body conditions. This basic fact can not be ignored. The problem is whatever one perceives the disability as an abnormal stigma in a medical sense (i.e., the attempt to eradicate stigma and normalise the impaired body) and let it be unseen or accept it as a condition of any bodily situation as a kind of embodiment (as discussed widely in poststructuralist discussions of identity and embodiment etc.). Due to that reason, UD's strength that arises from its position on equality, raises questions with regard to assumptions concerning the issue of stigma and its relationship with impairment and embodiment in UD.

6. In UD strategy for dealing with non stigmatisation through design for all, like the Social Model, UD distinguishes the disability from impairment. In the distinction between disability and impairment, there lies a perception that the impaired bodies especially the limitless diversity of the impaired bodies are not important and can be ignored through some generalisations ('one size fit model' of disability). This is a highly sensitive point that has been deeply argued in the recent disability discourse in the poststructuralist movement. From this viewpoint, UD seems to assume that the equality-based notion of design for all can generalise the diversity of impairments to a one-size-fits-all model of disability. This generalisation recalls the modern/ideal/masculine human body standardisation of design that was criticised by UD. While UD's design for all ideal is a strength for UD, the reality of the diversity of impairments and their special spatial requirements place pressure on this model.

7. ICF, with its focus on health-related conditions and its consideration of the 'universality' of impairment, seems to fit well into UD's vision of design for all. In both cases, disability is accepted as a normal condition of humanity, which validates one of UD's greatest strengths- its ideal of anti-discriminative, equality for all people. However, ICF relies more on the medicalised perception and classification of all people, not only on the biological but also the functioning of the bodies and their performances. The functional limitations and the limitations of social participation are considered as the social status of definition of disability as pointed out in ICF. Within this consideration, there do not seem to be any implications regarding codes or requirements that generalise spatial necessities, that is, design requirements of people with diverse needs, as UD suggests.

8. The long historical demedicalisation and remedicalisation, as well as the universalisation of the status of disability, provide a basis for the development of the conceptual and strategic foundations of UD. The term 'universal' has never been accepted as the universal within UD in a more essentialist dogmatic way. The term 'design for all' indicates 'universality', and the principles of UD always encourage a diversity of solutions that can solve various physical environmental problems alternatively in order to solve the design problems of 'all people' to the greatest extent possible. This approach is one of UD's central strengths. Because of its inclusive approach, the issue of disability has been accepted as a universal condition of humanity, as ICF urged. However, the ICF perception of the universality of disability based on mainly medical and health related perception acknowledges that every human being can experience health problems and hence some disability. It is important to remember that the perception and definition of disability and its limitless variations cannot be

21. The related concepts as well as the practical applications of UD should be evaluated and questioned for improvements as was done at a recent four-yearly event of the international conference for UD 2010 in Hamamatsu where two key speakers raised the question of the economic limitation of the application of UD principles, especially in less prosperous countries.

reduced to any kind of generalisations or universalisation similar to those of standardisations of all people in the former design attitudes. What is the difference between the congenital disabilities and chronic illnesses from the people's experiences of decrement in health and temporary illnesses? Actually, the generalisation and universalisation of disability in a single term of 'disability' requires an ontological refinement from the point of UD. If this is the case, UD's mission that *all* people with a greatest extend possible must be reconsidered with an attention to the remaining few people and their ununiversalised disability conditions.

This argument raises questions about UD's rigid opposition to 'specialised design' formations. Since there is no single type of disability and the types of disabilities are so varied it seems impossible to generalize the impairment effect of disabilities in the formulation of an enabling physical environment. Shakespeare noted that "while environments and services can and should be adapted wherever possible, there remains disadvantage associated with having many impairments which no amount of environmental change could entirely eliminate" (Shakespeare, 2010, 271). He also noted that

"people with different impairments may require different solutions: blind people prefer steps and defined curbs and indented paving, while wheelchair users need ramps, dropped curbs and smooth surfaces and sometimes people with same impairments require different solutions... Moreover, physical and sensory impairments are in many senses the easiest to accommodate. What would it mean to create barrier free utopia for people with learning difficulties..." (Shakespeare, 2010, 271).

9. Beyond its ontological and political indications, the design-based principles (except the first principle of equality), the remaining six principles of UD represent UD's greatest strengths and must be welcomed by all people who aim to achieve better, healthier, more effective, and more sensitive designs. This is a long-standing desire of all people for their living environment. UD is not developed as a theory. As its proponents claim it is developed as a strategy. Like all strategies, UD has an 'open-ended' formation, and it is open to new visions and criticisms so that it can fulfill its vision and ideals (21). This evaluation has attempted an assessment of UD while raising some questions concerning the nature and status of UD.

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Alındı: 27.05.2011, Son Metin: 17.10.2011

Anahtar Sözcükler: Evrensel Tasarım; herkes için tasarım; engellilik.

EVRENSEL TASARIM VE ENGELLİLİK İLİŞKİSİNDE İNSAN, YETİ EKSİKLİĞİ VE ÇEVRESEL ETMENLER BAĞLAMINI GÖZETEN KAVRAMSAL ZORLUKLAR

ENGELLİLİK KONUSU EVRENSEL TASARIM FELSEFESİ İÇİNDE NEREDE DURUR?

Evrensel Tasarım (ET) anlayışının temeli sosyo-politik anlamda Amerika'da 1970 ve 90'larda gelişen 'engelli hakları' hareketi ve yaşanan toplum gereçlerinin artmasına dayanır. ET özünde 'herkes için tasarım' yaklaşımını öne çıkarırken kendisini, daha önce engellilik kavramları ile bütünleşmiş olan 'uyarlanabilir', 'özelleşmiş' ya da 'erişilebilir' tasarım yaklaşımlarından ayırır. ET anlayışına göre bütün yapıları çevreler insanların yaş, cinsiyet, kapasite ayrıca sosyo-kültürel ve ekonomik farklılıklarını gözetmeden herkes için kullanılabilir olmalıdır.

ET tarihsel anlamda engellilik söylemi içinden türetilmiş olsa da herkes için tasarım tanım ve yaklaşımlarında engellilik temasına ve ilgili tasarımlara doğrudan referans vermekten kaçınır. Bununla birlikte ET'yi destekleyen yazılı literatürde verilen tasarım örneklerinin çoğunlukla çeşitli engellilik sorunlarını gözetken örnekler olduğu gözlenebilir. ET'nin lider savunucuları yazılarında herkes için tasarım yaklaşımının altında insan hakları ve ayırmacılık karşıtı anlayışlarına dayalı ontolojik açıdan 'damgalayıcı olmayan' ve 'kapsayıcı/kaynaştırıcı' bir misyonu olduğuna dikkat çekerken, aslında, dolaylı olarak engellilik konusu ile bağdaşmış konuları dile getirir.

Bu makale, herkes için tasarım anlayışının tasarım vurgusunun yanısıra sahip olduğu kavramsal derinliğini ve engellilik konusu ile olan ilişkisini engellilik kavramının tarihsel gelişim süreci içerisinde bakarak irdelemeyi ve bu sürecin ET in ortaya çıkışındaki etkilerini anlamayı hedefler.

Engellilik kavramının tarihsel gelişim süreci içerisinde bakıldığında ET'nin engellilik kavramının 'medikal bakış açısından kopma' ve 'evrenselleştirme' süreçlerinden etkilenen bir yaklaşım belirlediği görülür. Benzer şekilde sosyal çatkıcı bakış açısına dayanan ve engelliliği yaratan faktörlerin bireyin yetieksikliğinden çok çevresel faktörler olduğunu savunan 'sosyal model' ve 'azınlık grupları modeli' anlayışlarının da ET in kavramsal oluşumunu etkilediğini söylemek mümkündür. Dünya Sağlık Örgütü bünyesinde ICIDH ve ICF tarafından son 30 yılda geliştirilen engellilik tanımları ET in ayırmacılık karşıtı ve evrenselleştirici tutumunun netleşmesine yardım etmiştir. Engellilik yaklaşımlarından olan sosyal model yaklaşımının 'engellilik' (sosyal çevreye ait) ve 'yetieksikliği' (bireye ait) kavramlarını birbirinden koparması ET'nin kaynaştırıcı ve damgalama karşıtı anlayışlarını vurgulayan ve herkes için tasarım yaklaşımını destekleyen izler görülür.

Makale, ET'ye bu söylemin içerisinde ve engellilik söylemi ve onun tarihsel gelişim süreci ile ilişkisini gözönüne alarak bakmaya çalışırken bu söylemin güçlü ve zayıf yanlarına dikkat çekmeye çalışmaktadır.

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