

Design for All. The Increasing Dissemination of Teaching Experiences

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Abstract. At the same time with the latest global demographic phenomena, have developed and quickly spread different design approaches related to the more general definition of “Design for inclusion”. Among them, the Design for All seems the most appropriate to spread social awareness oriented to the inclusion, in addition to being particularly effective for the training of young designers, because it forces them to consider the constraints and opportunities arising from the complex system of target project. The text describes some educational experiences conducted in recent years in Italy, in the University of Chieti-Pescara, referring to a number of application areas: bathing, shopping, sign systems, preparation and consumption of food and drink, gardening. The text highlights the importance of the training time to increase awareness of young designers on the issues of human diversity and social inclusion, and at the same time the way in which the DfA approach would encourage innovation, particularly through effective design concept.

Keywords: Sociodemographic phenomena · Design for inclusion · Design for All · Teaching experiences

1 The Different Design for Inclusion Approaches to Tackle the Global Socio-demographic Phenomena

The contemporary global scene is facing some socio-demographic phenomena of epochal dimensions.

The main demographic challenge, especially for industrialized economies, is an aging population. The world population of 9 billion in 2050, will consist of approximately 2 billion from “over 65”. So, what once was the old age is no longer a residual period: the lengthening and improving the quality of life, has extended this stage of life to a period that covers three decades. More and more it often happens that over sixty people are active both towards their grandchildren both towards their elderly parents, maybe ninety, and they simultaneously operate in the social field.

But inevitably, if the progressive aging of the population increases the pathologies, even partially invalidating (chronic degenerative diseases and mental illnesses, reduced sensory capacities, reduced mobility, etc.), maintaining an adequate quality of life can

be guaranteed by all the elements that promote active aging, or the accessibility to services, the ability to maintain social relationships, or the ability to move, to travel and to act independently, benefiting from a stimulating and accessible environment.

Likewise, thanks to medical advances and a growing social and cultural awareness to issues of disability, including a growing number of people with disabilities has been recovered in the active life. Indeed, if at the beginning of the twentieth century the disability was regarded as a matter which concerned a small minority of the world population and the majority of people with chronic diseases were confined to living in institutional care¹, today the situation is completely changed: only in Italy the disabled are about 3 million, representing approximately 5% of the population, and of these only about 7% is recovered in care institutions².

Simultaneously with these socio-demographic phenomena, contemporary society is increasingly characterized by “social liquidity” [1], which probably will be expressed increasingly in the form of multiculturalism, multi-ethnicity, multiageing, multidimensionality, multitasking.

And if the European Union has built its motto “United in diversity” precisely from these phenomena, already for several decades new approaches to the design of environments, products, services and systems have been developed, attempting to intercept the new requirements expressed by this human diversity and promoting inclusion.

It can now be argued that the main approaches of the “design for inclusion” are basically three, each with its own specific characteristics: Universal Design, Inclusive Design and Design for All.

1.1 Universal Design: An Expression of the Anglo-Saxon Pragmatism

The Universal Design (UD) for over thirty years expresses a fundamental objective of good theory and design practice: meeting the needs of as many users as possible. Not a set of size requirements, comply with codes, standards, or to special characteristics of specific users with disabilities, but the reference to general principles of simple design implementation and verification. The Universal Design in fact for the first time not only focuses on people with disabilities, but defines the user extensively, suggesting to make all products and spaces accessible and usable for persons to the greatest extent possible. Not everything has to be fully usable by all: the term “universal” refers more to a methodological attitude than assumed as rigid and absolute.

Born and grown up from the United States, The Universal Design bases its approach on a didactic reduction to seven design principles, simple to apply and thus of rapid spread around the world. This, however, tends to an extreme schematic designation, and above all not taking into account the individual’s complexity and the diversity and variability of the human race, changing by age, physical and mental conditions, cultures, attitudes, desires and aspirations.

¹ In Italy, for example (but the data can be extended with small variations to all Western countries), the life expectancy of people with disabilities at the beginning of the twentieth century was just over 50 years, and the chances of surviving a lesion of the spinal cord were of about 10%.

² Source ISTAT, referring to the Italian population.

1.2 Inclusive Design: Design with Attention to Diversity

Unlike Universal Design, the Inclusive Design (ID), which has its main development center in the UK and countries of British influence, does not put dogmatic design principles, but defines a real careful approach to human diversity and it is based on the idea that no policy, standard or guideline can be absolute but must always deal with the multiplicity of users, contexts and objectives. The Inclusive Design, in fact, considering the wide range of skills, languages, cultures, genders, ages, and all other possible forms of difference between users, bases its approach on three “dimensions”: recognizing diversity and uniqueness among individuals, the inclusiveness of the tools and design methodologies, the amplitude of the repercussions in terms of benefits.

1.3 Design for All: Participation and Process

Design for All (DfA) aims to improve the quality of life of individuals by enhancing the specificities and diversities: a holistic approach to processes and methods of project environments, equipment and services, accessible “in an autonomous manner” by people with different needs and abilities. It does this mainly through the process of project development, which is itself inclusive, participatory and at the same time effective tool for education and dissemination of the same principles of DfA, which is succinctly known as the “design for human diversity, social inclusion and equality”³.

2 The Strategic and Training Value of DfA Approach

Among the different design approaches for inclusion, DfA appears therefore to be more appropriate for the dissemination of a social conscience oriented to the inclusion.

DfA, in fact, does not propose a new type of design nor it is a new project discipline; it is rather an approach that enhances the concepts of participation, sharing and inclusion; is a new sensitivity on the issue of human diversity, not as discriminating factor but as a systemic feature of the human race, both physical and cognitive, social and cultural; it is therefore, first and foremost, a growing attitude on civil and cultural level, which has inevitable repercussions on and across all areas of the project, to envision spaces, products, services and systems that are pleasantly usable independently from the widest possible range of users, regardless of age, gender, ability, culture or group.

The participatory dimension of the DfA design process, involving all stakeholders in the various stages of development, then, is the strength of this approach. This assumes both a strategic value for companies and a formative value to the training centers, at all levels, and especially universities.

For companies, sharing DfA approach means first to become aware that there is a market for a standard user and therefore not partially different from that which has so far turned industrial design: a DfA project widens the SME market as it meets a greater customer base/target, it builds loyalty, it allows the same company to gain visibility and

³ EIDD, Stockholm declaration, 2004.

therefore to strengthen its brand identity to the themes of innovation and social sensibility [2]. In summary, a DfA project takes on a strategic value, primarily for those who propose and develop it, whether it is a company or an organization, public or private. On the educational plan, DfA also seems particularly effective for the training of young designers, because it forces them to consider both the complex system of constraints and opportunities arising from the project target, extended to the widest range of “all” the possible users of environments, services and products, as well as push them to get out of their own narrow sphere of activity of future designers to interact with all the players in the project value chain. The inclusive project, in fact, presupposes an inclusive culture and therefore an education system that values human diversity at all educational levels, for generations to come.

In this some Italian universities, especially in the project disciplines, and in particular in industrial design, for several years has enabled different teaching levels on Design for All, or at least related to the broader theme of inclusion.

3 Some DfA Teaching Experience

In recent years in Italy, and particularly in the Department of Architecture of the University of Chieti-Pescara, they were carried out, at several levels, different teaching experiences related to project and participatory DfA approach. Starting from individual courses, up to the Master degree laboratories, project issues were addressed related to many fields of application such as bathing, shopping, signage systems, preparation and consumption of food and drink, activities conducted in the home such as gardening, and other activities and areas with respect to which the reference to a participatory and inclusive approach to design allows you to give an answer, directly or indirectly, to social issues related to human diversity.

3.1 Bathing: Tourism for All_Design Lab “*Balneabile*”

For some years there is an ongoing intense debate internationally on the topics of tourism, leisure and hospitality time referring to inclusive products and services, and on the undoubted economic benefits, direct and induced, that a “Tourism for All” can lead in the next future. The seaside businesses of the city of Pescara, however, are the bearers of a story, an experience and a multitude of services that represent a single territorial heritage, especially related to other resources (historical-artistic, culinary, natural and cultural) in the most extensive coastal territory.

On this basis, within a specific design laboratory, which involved directly also to industry traders, several projects related to inclusive use of the bathing facilities were developed (Fig. 1), by the size of individual products and equipment to the entire bath-house, assuming in many cases even specific useful services to assist users with different needs and abilities.

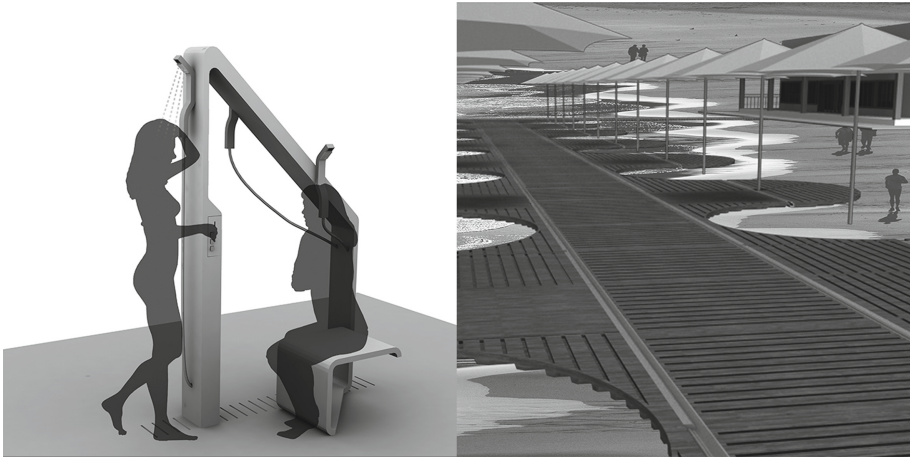


Fig. 1. Some design concepts from the “Balneabile” design lab.

3.2 Shopping: Shopping for All_Design Lab “the Natural Shopping Center”

In many cities the central areas often tend to lose attractive value compared to its traditional role as a “shopping center”: too many are indeed alternatives or simple “artificial” external forces, that separate the traditional stakeholders of commerce from the urban centers (both referred to supply and demand). In such cases, to recover positions with respect to competing alternatives, the city center should be able to characterize the image of the city in which it is inserted, enhancing the uniqueness but at the same time proposing new experientialities, to intercept, through its places and its local identity, new fruition demands.

On this basis, through the DfA approach, within the framework of the didactic activities of an industrial design teaching, they have been re-thought and imagined in a new way the main “shopping streets” of the urban center of an Italian city: they were transformed into Place Brands to individually help enhance the entire city, and at the same time make the shopping experience something new, meaningful, exciting and truly inclusive, for example by integrating the communication project with the project of street furniture. This is to respond in a full and consistent way not only to the needs but also to the desires of all the people who for various reasons are related with the city through its streets.

3.3 Shopping: Shopping Experience for All_Master Degree Thesis

The opportunity to perform independently and comfortably all daily activities, including those related to amusement and recreation such as shopping, is a basic precondition for pursuing the inclusion. In this it is particular important to put attention to the needs of so-called “limit users”, i.e. that particular group of individuals that presents the specificity considered as more “critical” for playing an activity, and therefore an experience, in an autonomous way.

On these theoretical assumptions, it has been developed a Degree thesis research⁴, whose purpose was to facilitate the choice of a piece of clothing during the shopping experience, starting from the needs of those who have the greatest difficulties, that is individuals with visual impairment. Based on the approach of Design for All and on some concepts from the studies on synesthesia, and in relation to the complexity of the scenario considered (shopping experience) and to the needs expressed above all by the visually impaired, research has developed a system of information/exhibition elements (hanger-stander-label), characterized by specific morphological, technological and sensory features enabling “all” people to the autonomous and conscious choice of a garment (Fig. 2).



Fig. 2. The system of three information/exhibition elements (hanger-stander-label).

3.4 Fitness: Fitness for All_Design Lab “Well-Being and Social Relations”

Sport, game and fitness can be extraordinary inclusion instruments, promoting not only the physical, but also social and cultural development. This provided that they are guaranteed to everyone equal opportunities to fruition of environments and equipments. These may themselves become effective instruments of social relationship. However, some areas of the city of Pescara, in respect of which was carried out a specific design laboratory, already have a vocation and an identity linked to fitness and physical well-being: between them there is the waterfront, which is considered as a favorite places by the inhabitants themselves to perform daily physical training activities.

On this basis, according to the DfA approach, some product concepts related to fitness equipment systems were developed, to be placed in the urban areas of fitness. They are characterized by being usable by people with different skills and above all by

⁴ Tesi di Laurea “Con-tatto. Sistema informativo/espositivo per la scelta autonoma del capo di abbigliamento”. Laureanda Veronica Scarpa; relatore prof. Stefania Camplone.

fostering the development of interpersonal relations in the traditionally “private” time of daily training.

3.5 Signage: Hospital Signage for All_Master Degree Thesis

The ability to orientate in a place substantially depends on three different aspects: the communicative nature of the place, through the territorial, urban and architectural elements it is made of, and the communication artifacts placed in it; the receive and interpretation models of environmental information that individuals “usually” use for orientation; the many different “skills” of individuals, which vary both with respect to physical and cognitive factors and to social and cultural factors.

The signage designer must be able to know, control and manage these variables objectively and consciously, to allow “all” people to identify paths and directions to specific goals without the risk of getting lost, with the consequential practical (loss time, failure to reach a place) and emotional (anxiety, stress) discomfort, which result in most spatial disorientation experiences.

These were the theoretical assumptions for the development of a research thesis, which has developed a design tool system useful for designers to conduct, in a more objective and complete way, the analysis of both the communicative nature of the place, and the difficulties and the ability of multiple users to navigate, as well as the different ways or “strategies” implemented to receive and interpret information to orientate.

These are tools that facilitate the construction of a requirements framework, sufficiently comprehensive, understandable and useful to design “enabling” communication systems for public spaces.

3.6 Preparation of Food and Drink: Food for All_“Tutti a Tavola” Project

In recent years DfA was confronted with the question of food at different scales: from the rest areas, to the equipment make easier “for all” the preparation and consumption of food and drinks, to the value of diversity referred to the food and wine culture.

On this issue it took place a specific learning experience, entitled “Tutti a tavola!” (the dinner is ready for all!). In particular, as part of Industrial Design teaching and according to the inclusive Design for All approach, students have designed a collection of products for the preparation and consumption of food and drink. The most interesting aspect of the experience refers to the diffusion and dissemination of the project, which was able to directly involve different local stakeholders, including government agencies, craftsmen and companies.

In this way, a selection of twenty projects have been developed to obtain ceramic prototypes. A series of public events organized during the various manufacturing of prototypes (Fig. 3), also allowed to convey the awareness of stakeholders on DfA issues. The prototypes, ultimately, formed the basis of a collection for a traveling exhibition which has also been promoted in several events related to Expo Milano 2015.



Fig. 3. Some moments of the prototype production during public events.

3.7 Gardening: Green for All_Design Lab “Green for All”

Last issue addressed in order of time in the University of Chieti-Pescara related to DfA, was home gardening, summarized in the formula of the “Green for All”.

The care of greens can be an effective tool for raising awareness of environmental issues as well as, in some cases, a real tool of therapy and rehabilitation (horticultural therapy) of discomforts and disabilities. It belongs to the field of occupational therapy and consists in the care and management of the green, in the cultivation of flowers, vegetables and other plants.

By extending these benefits also to the categories of users that are not strictly related to disability, and verifying the possible applications also in relation to unconventional contexts, the design laboratory urged the students to face the design for all issue reported to gardening, primarily domestic. Starting from dimensional and productive constraint of earthenware, the design concepts were intended to encourage the cultivation of ornamental plants or of home use spices even in unusual contexts of use (in the kitchen, in the bathroom, in the living room, but also by bike, on desks or on the bedside tables in the bedroom or in a clinic for long stays).

4 Conclusions

At university, certainly it represents a particularly significant and delicate moment for the training of the new generations of designers, especially if the educational experiences are conducted in an engaging and participatory way, even compared to the design process actors who traditionally remain outside the academic world.

Described educational experiences have shown that the teaching of DfA approach in recent years has managed, slowly and progressively, to conquer increasing space in both the educational components of a Department of Architecture and in the interests

of the students themselves. The growing enthusiasm for the project issues related to human and social inclusion and cultural diversity, also testified by the increasing demand for developing research Thesis on these subjects, demonstrates that the growth of the sensitivity of young designers goes hand in hand with the awareness that, to address the design challenges that contemporary society poses, new tools and visions are needed, sometimes even provocative.

In addition, the same educational experiences have also highlighted how DfA approach can be a useful tool to foster innovation, by establishing design concepts particularly effective.

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