

Design For All



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WAY FORWARD TO INCLUSIVE CITIES: A
CHALLENGE IN MEETING THE SDG GOAL

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Guest Editor's Note



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In the Sustainable Development Goal (SDG), particular in the 11th one emphasizes on sustainable cities and communities. This goal aims to make public places are equally accessed by every group of population. Therefore, it is now academic and professional related with place makings draws their attention on inclusive design process. This volume provides experiences on Universal Design implication, which ranges from wide perspective of UD strategic planning and narrowing down to a focus in details of wheelchair design that meets the requirement of users in Thailand context.



Under several movements toward access law and implementation in this country, the plan for Universal Design strategy offers three aspects to strengthen application of this concept. It starts from knowledge development and dissemination of the universal/inclusive design concept. Then, the plan proposes law enforcement strategy. There are numbers of existing access regulations require effective implementation. The final strategy focuses on raising public awareness about accessibility and inclusiveness in the building process. The second paper shares experiences from Australia about accessible facilities in public place. The Author discusses on effective and collaborative government administration through building accessible features. This reveals that by having good access law is not enough to guarantee equal access to public spaces. Basing on a personal lived experience of the Author, beyond the physical design is the societal understanding and awareness of human rights in making places that include everyone. The third paper analyzed the Government's project collaborated with Academic research. The challenge of the project was to apply Universal Design concept in

developing waterfront area to be accessible for everyone. Rights on the land in Thailand context is still affected by the role of private sector rather than the state one. Consequentially, reclaim the public land to create public places struggle with the inclusive process by the government. The project shows participation process as the key to achieve inclusive land development. The forth paper narrows a focus on factors from economic, social, medical aspects that affect implementation of access device policy. The Author shed light on a challenge of how state agency can distribute wheelchairs that fit the users' requirement. Again, all of these challenges can be seen as a result of public awareness and understanding of equality and human rights.

In summary universal/inclusive design concept which has been seen as a way to achieve sustainable and livable city for everyone is challenged by the way we understand 'Human Rights'. Achievement of inclusive urban places, therefore, requires knowledge, integrity in regulation process, as well as openness for participation of all stakeholders.



A Strategic Planning of Inclusive Society According to Universal Design Concept in Thailand



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1.1 Abstract

In the past decade, Universal Design (UD) concept has become a vital issue in Thailand, especially in architectural education and professional practicum. Although many organizations have been working on applying the UD to their areas of responsibilities, a planning method and integration among the organizations are required. Therefore, a study of the strategic planning is set up to gather issues and frame a further UD development roadmap. Eight formal group discussions of five UD associated parties led to three main plans as follows; 1) Knowledge and database development by setting up a clear purpose and research direction on UD, 2) Policy and regulation enforcement by promoting accessibility laws and regulations and 3) Public awareness on UD by encouraging the recognition and providing necessary information. The implementation of this strategic plan has been

divided into 2 phases. For the first 3 years, the academic activities will be focused to extend wider awareness to society. The second phase's goal is to enforce the idea into educational system leading to practice at the national level.

Keywords: Universal design, Strategic planning, Inclusive society

1.2 Introduction

Why do we need Universal Design Strategic Plan? The concept of Universal Design (UD) has been accepted in architectural field particularly in higher education level. Recently, it is increasingly practiced by many organizations as we can see from the growing number of UD activities and movements, for instance, the design-for-all restroom renovation project for all gas stations by PTT Public Company Limited, the publication of a guideline for environmental design for disabilities by the Association of Siamese Architects under Royal Patronage, and the broadcasts of barrier free design and accessibility concept on mass media.

Aiming to achieve inclusive society, public awareness and understanding on UD should be created (ThitirerkPhromvanich, 2016). With this mission, Thai Health Promotion Foundation has been supporting many projects related to the development of the quality of lives and on environmental design for disabilities at many levels (Thai Health Promotion Foundation, 2011). The knowledge gathered from those projects helps providing key recommendations that benefit both governmental and private-owned organizations in term of policy and regulation direction as well as the evaluations of such practices. However, they learn that all efforts in making a more user-friendly society seem to be strategically disconnected and lack of integrity and cooperation

which results in the overlapping of work efforts among organizations. The exchange of resources, knowledge and collaboration do not easy to happen.

The cooperation from every stakeholder is a key issue on UD development direction (The City of Calgary, 2010). Therefore, the study for strategic planning of Universal Design concept is set up with an aim to create collaborative network of all parties such as governmental and non-governmental organizations, academic institutions, and civil society to define the UD strategic planning together which will lead to the proficiency of UD applications (Preiser, 2008). This collaborative network will reduce the amount of repeating works and the unnecessary usage of resources and encouraging the knowledge sharing among experts from each related area. Moreover, this will allow prioritizing all important issues for UD policy, educational system and professional practice by using the same development roadmap in order to effectively enforce necessary changes in both environmental aspect and public attitude for the barrier free society in the future.

1.3 Literature Review on Universal Design

Universal Design concept focuses on social equality and the right of fully accessibility for everyone (Steinfeld& L. Maisel, 2012, p. 15). Ron Mace mentioned that, "Universal design is 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." (Center for Universal Design, n.d.). Public consciousness on humanity and the right of accessibility for all should be enrooted as a common value in the society rather than being just a cause of law enforcement and built environmental

design theories. Therefore, 7 principles of Universal Design were defined, which are, Equitable use, Flexibility in use, Simple and intuitive use, Perceptible information, Tolerance of error, Low physical effort, Size and space for approach and use (Preiser and Ostroff, 2001; Building and Construction Authority, 2006; Clarity Communications, 2014). However, the differences in social contexts and cultural values are important in UD application. Hence, social diversity is a key aspect in applying UD concept into practice in each society (Story 2001, p. 1017).

It is vital to create a strategic plan for UD because it can identify a development guideline which is agreed among stockholders. Moreover, it can integrate all strategies from various aspects and provide sustainable solutions which include people of all abilities such as education, health- and social services and cultural activities (Centre for Excellence in Universal Design, 2014). To achieve these, four issues could be concerned, which are 1) knowledge of various stakeholders, 2) a methodology to derive their considerations, 3) objectives of each plan and 4) participation throughout the whole process of planning (Aslaksen, F. & et al. 1997).

1.4 Related stakeholders and Methods of study

There are main five associated parties joining the group discussion sessions which are;

State party: 25 representatives discussed on UD policy, country development roadmaps, law and regulation enforcement knowledge, and source of supporting funds.

Private sector party: 20 representatives shared their knowledge on problems and barriers facing in the application of UD

innovation, facilities, environmental design laws and regulations for disabled persons in practice.

Academic party: 41 university instructors commented on theoretical knowledge, necessary information and resources on UD, concept distribution direction, and human resource preparation in the fields of environmental design and academic services.

NGO / NPO party: 22 agencies exchanged their direct experiences on UD practice as well as lesson learned from their collaborative networks.

Community party: 29 people revealed on the problems they encountered in their works on user-friendly community adjustment and development projects

Apart from these groups, almost 100 disabled people and elders presented their daily life obstructions and other concerns. The main objectives of each discussion session is not only to set up a clear direction on UD concept and application development, but also to create a collaborative networks of people from various fields in order to encourage knowledge exchange and cross-organization cooperation in the future. The study procedure began with,

Firstly, the working and consulting teams were established to determining, analyzing and summarizing important issues for UD development. Secondly, the working team arranged 8 intensive focus group discussions which attempted to include as many parties' representatives as possible. Some key people were individually interviewed for gathering some missing information and additional issues. This collective process led to the draft of the UD strategic plan. Thirdly, for distribution this campaign to

public, the draft plan was presented. Ten UD experts across disciplines were invited as the main commentators while 100 stakeholders from all parties were joined to reveal their requirements.

Lastly, the final draft of the strategic planning was delivered to the funder, Thai Health Promotion Foundation. It is distributed both print and online versions.

1.5 Three Main Issues in the UD Strategic Plan

As a result of brainstorming sessions with all parties, there are numbers of issues that many organizations have been working on in which they share a common goal to make a better society for the equality of all people, by creating or adapting built environment to be more accessible.

The finding strategic plan can be divided into three sections based on the areas of expertise and working collaboration which are following; knowledge and database development , policy and regulation enforcement, public awareness on UD.

1. Knowledge and database development plan

One of the common problems among associated parties is the lack of knowledge resource centers that can be accessible. For example business sectors are willing to employ disabled persons and ready to renovate to make accessible working environment. However, they have not only a very limited knowledge on design standard for disabilities, but also a UD consultant. Therefore, centralizing sources of information about UD regulations, UD knowledge and expertise is the very first essential step as Professor Edward Steinfeld (2013) mentioned, educational and

dissemination activities are the significant key leading to implementation. Following four objectives must be achieved.

A clear direction on UD research with the collaboration of all related parties

Nowadays, definitions of “Universal Design” given by each agency are different. Many honored representatives suggested that it is important to examine public definition about UD in both national and international level. So, this could be the first starting point in setting up the direction for creating a wider public awareness and understanding on the concept of UD.

Encouraging UD research under Thai context

Most modifications of UD product and accessible environment are made by disabilities themselves and differences in context. Although those adjustments might not be in accordance with standard regulations, it is practical. Moreover, by modifying available materials and surroundings, it does not only mean affordable, but also maintainable without any high technical requirement. The example research projects might be; the local innovation on built environment, the workplace renovation, or the building modification for different types of disabilities.

Knowledge and resource management system for public distribution and service

Currently, there is no proper IT platform on UD which causes the difficulties for those who would like to get the information. Online database on a network can make the information be easier reachable should be provided.

Cross-organization information sharing

UD concept seems to be all about architectural design. However knowledge sharing from other fields such as physical therapy, medicine, and laws is also crucial in UD development. Such knowledge integration should not only be at the national level, but also in the collaboration with neighbor countries. This can be done by encouraging a cooperative learning environment among professors, students from different majors, and people with disabilities. Academic conference is also a platform for knowledge exchange among representatives from each ASEAN nations.

2. Policy and regulation enforcement

Using the force of law can bring Universal Design in to practice (Frye, 2013). Thai policy and regulation enforcement for disabilities has very impressive progress. However, the application in practice is not at the same level as laws and policies. Therefore, creating a mutual awareness and public understanding on UD application in built environment for the accessibility could be seriously implemented because it can lead to the modification of built environment for disabilities. Two main focuses are;

Supporting UD policy and regulation standards for disabilities

When people understand more on the values of UD facilities, the adjustments on built environment can be easily conducted. Public awareness will lead to a potential UD policy and regulation standard enforcement because each person can be an agent of change. So, it should be supported continually and in collaboration

among all agencies to avoid duplicated campaigns and to make sure that the core message reaches to a wider range of audience.

Supporting law enforcement on providing UD facilities for all people

Although the ministerial regulations in 2005 force every new building to concern about barrier free standard, the major problem of UD applications and practices is a lack of serious enforcement. The follow-up and evaluation program on UD facility could be enhanced.

3. Public awareness on UD

Due to different groups of audience and various dimensions of recognitions, rising public awareness would be done in diverse ways. It can summarize to five kinds of UD concept acknowledgment, which are;

UD knowledge and recognition for academic agents

Students in architecture majors can be the first group who put Universal Design concept into design and construction practice. Including this concept to academic content, it could be done through architectural design project which UD experts, students and designers can learn from each other.

UD knowledge advancement for change agents such as architects, local technicians, and people with disabilities

These groups of people are directly related to build environmental adjustment. Specific training and workshop are the way to provide UD knowledge to each group. Since their requirements and their scope of works are different, so that they can apply the concept of UD into practice effectively.

UD knowledge enhancement in interdisciplinary fields for public awareness

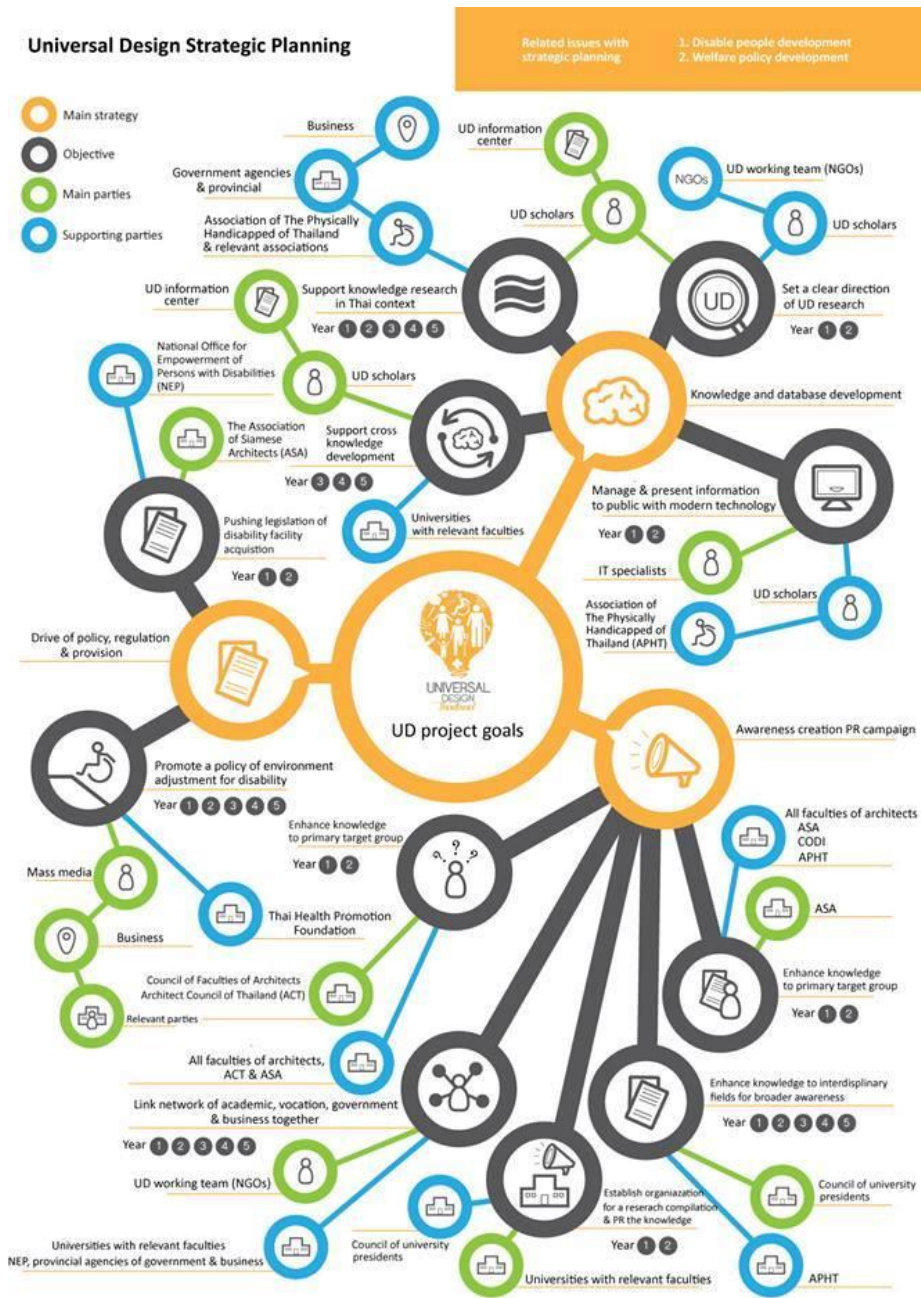
UD concept and knowledge should be promoted to everyone in the society, even with those who are not related directly in the field. This will lead to the cross-organizational knowledge sharing which generates mutual consideration for the equality of accessibility for everyone in the society. The concept can be introduced in primary level of education to make all youths know the diversity of people. Furthermore, increasing more details in secondary school and university can enhance an achievement of UD implementation to society. The long term plan can lead to well-being of the country's citizen (Christophersen, 2002).

The establishment of UD service center for knowledge dissemination

For better practices and activities on UD movement, one-stop service on UD information and resources center should be established to centralize all UD subjects. On the other hand, UD specialized centers based on each group's expertise also could be established in both rural and urban areas so that the information and services can be decentralized to all part of the country.

The formation of the UD collaborative networks of academic, profession, governmental, and non-governmental organizations for further cooperation on UD issue

During the UD development strategic planning sessions, there are a lot of organizations from various fields joining the discussion, Establishment of a collaborative network will not only create the cross-organization cooperation but also exceed the working limitation of each organization at the same time.



All strategic plans are summarized as the info graphic map for public distribution (see figure above). The plans above have a 1-5 year of conduction in which the operation period and organization depends on different kind of process, the coordination from different organizations, as well as the capacity and readiness of teams. Nevertheless, some issues that are mentioned above have already been in process, while some topics are proposed during brainstorming sessions.

1.7 Summary

The proposed strategic plans derived from groups of expert who their works relate directly with disability and aging. In order to increasing public awareness on Universal Design leading to wider embracing of this concept, Susan Ruptash (2013) mentions that knowledge, regulations, and advocacy could be integrated and implemented simultaneously. This relates to the proposed UD strategies that involve with adjustment of public attitude to create change of accessible built environment and vice versa. However, there are other two vital issues found during discussions that should be implemented because they can potentially lead to the equality in public space accessibility by all people. They are disability empowerment and welfare and policy for disabilities improvement.

If disabled persons use public facilities more often and then other people increasing recognize their presence, public attitude and built environment will be changed easier. Employing disabled person is an effective way encouraging them to go out of home, even though the disabilities must face with many physical obstructions. This can also be empowered and included to society. However, cost of living for disable people is higher than other due

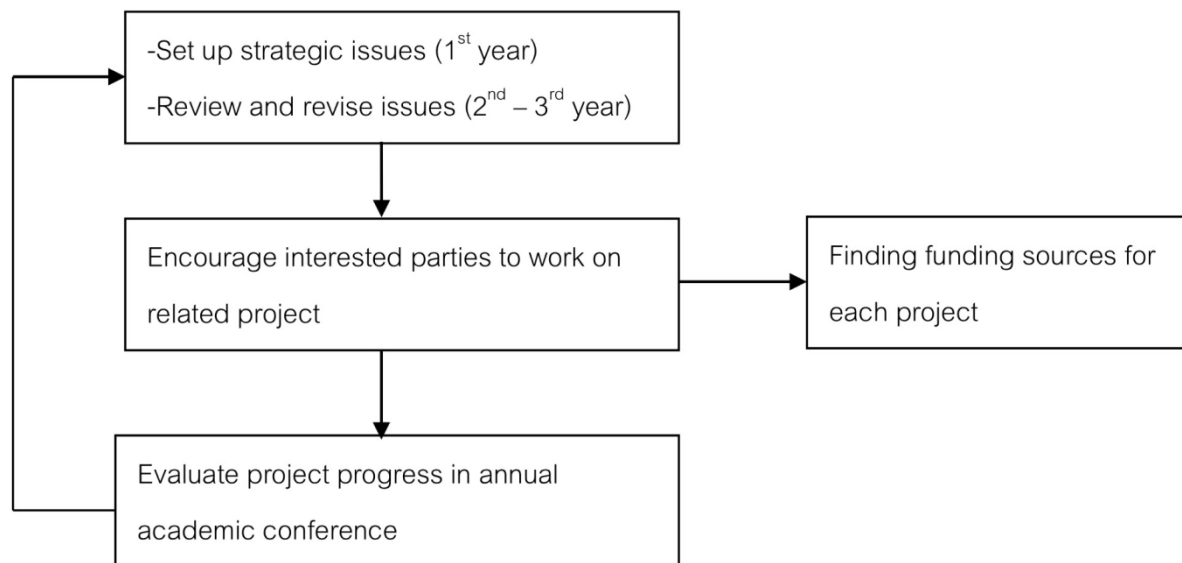
to additional costs to meet their specific needs such as equipment essential for independence, transportation and personal assistance (Smith, N. et al., 2004). Therefore, policies supporting disability welfares to subsidies their additional expenditures could be easier reach to. All this will encourage more disabled persons to come out in the society which will create public awareness on people with disabilities and the importance of user-friendly built environment for all people.

1.6 From the Strategic Planning to Implementation

Apart from the strategic planning, the action plan was also discussed. It devices into two phases which the first plan period is three years and the second is another next two years. For the first phase, the activities will be focused on academic movement which will be driven mainly by Supporting Academic Networking for an Inclusive Society Project. An annual academic conference will be used as a main procedure of the plan execution which will later be expanding to other kinds of event organizations such as workshop, innovation presentation, and so on. Types and agendas of the each conference will be decided based on the characters of related associated parties joining the event by the time given. Since this is a multiple-objective project, each topic under the strategic plan should be developed at the same time in order to create a collaboration networks among organizations from different fields which have different concerns and interests. UD conference theme and event organization parties will be determined based on outstanding outcomes, public interest issues of the year. It can also be joint conferences between related parties. Such conference will be organized annually inside and

outside of Bangkok depending on the suitability and the readiness of host party of that year.

The conduction will be focused on academic aspect together with the coordination from other associated parties so that the development of this strategic plan can cover as many objectives as possible. The procedure of the first phase of strategic plan execution is shown in a Figure 03.

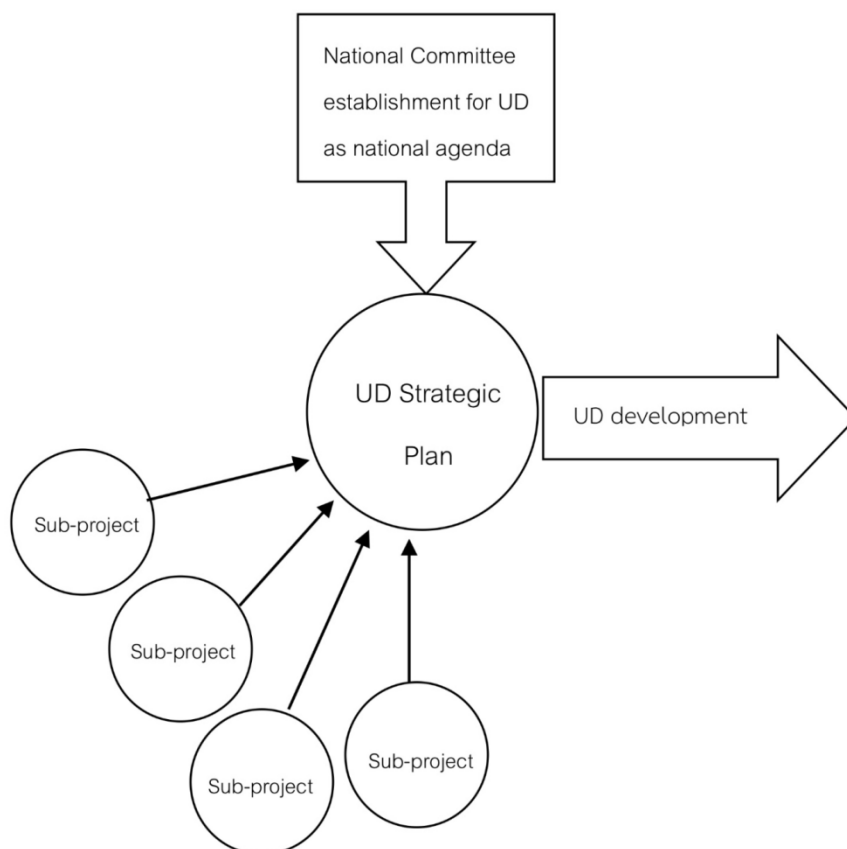


The main goal for the second phase is to promote UD concept and enforce the idea into practice at the national level. The procedures in the 4th and 5th year will be considered based on the progress in the first phase in comparison with the actual action plan. The evaluation will be conducted in annual academic conferences or meetings which allow us to determine the further direction of UD strategic plan. The action plan for each objective also will be revised. For example, related associated parties will evaluate their concerned objectives and seek for a way to extend the results for knowledge advancements or to revise some objectives for improvement. The main goal of the second phase execution is to promote UD concept and enforce the idea into practice at the

national level. The suggested method for this phase is the bottom-up and top-down driving campaigns.

The bottom-up driving campaign is an operation for smaller groups of conductors to work on their main subjects. This method is similar with the procedure in the third year. Therefore, we can say that this campaign aims to support each sub-group of the associated parties to continue working on the topics of their interests with the sharing achievement goal of an inclusive society.

For the top-down driving campaign, it is suggested that there should be the national committee to certify and to support this strategic plan, as well as to enforce such awareness and practice in government sector at all level. The national committee can be in form of long-term committee or specific party for special issues.



Nevertheless, in order to conduct both campaigns, it is necessary to develop campaign action plans, processes, and evaluation in each period of operations which should be managed every six months or once a year which will allow all related organizations to revise their plan to be consistent with possible changes in society. Figure 04 is presented the overall procedures of final phase of strategic plan execution.

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References

- Aslaksen F, Bergh S, Bringa RO, Heggem EK. (1997) Universal Design: Planning and Design for All. Ithaca, NY: U.S. The Norwegian State Council on Disability, Cornell University ILR School**
- Building and Construction Authority.(2006). Universal Design Guideline (Commercial Building). Singapore, the Department of Architecture, School of Design & Environment, National University of Singapore**
- Centre for Excellence in Universal Design. (2014) Building for Everyone: A Universal Design Approach, Planning and policy9. Dublin: Ireland. Centre for Excellence in Universal Design**
- Center for Universal Design.(n.d.)Universal design History.NC State University. Retrieved from http://www.ncsu.edu/ncsu/design/cud/about_ud/udhistory.htm . Site accessed 1March 2013.**
- Christophersen, J. (ed.) (2001). Universal Design; 17 Ways of Thinking and Teaching, Husbanken, Oslo, Norway**
- Clarity Communications. (2014). Accessibility Design Guide: Universal design principles for Australia's aid program. A companion volume to Development for All: Towards a disability-inclusive Australian aid program 2009–2014. Canberra: Australia, Communications Section, Aus AID.**
- Frye A. (2013). Bridging the Gap between Theory and Practice. In Norwegian Directorate for Children, Youth and Family Affairs (Ed.), Trends in Universal Design: An anthology with global perspectives, theoretical aspects and real world examples. (pp. 58-63). Oslo, Norway: The Delta Centre**
- Phromvanich T. (2016). UNIVERSAL DESIGN: How far we progress about Universal Design? (Thai).innowhale. Retrieved from <http://innowhale.com/2016/02/02/udpploy/>. Site accessed 16 May 2016.**
- Preiser FE. (2008) Universal Design: From Policy to Assessment Research and Practice, Archnet-IJAR, International Journal of Architectural Research, 2(2), 78-93**
- Preiser FE, Ostroff E. (2001). Universal Design Handbook. New York: McGraw-Hill.**
- Ruptash S. (2013). How to promote Universal Design through Passion, Knowledge and Regulations? In Norwegian Directorate for Children, Youth and Family Affairs (Ed.),**

Trends in Universal Design: An anthology with global perspectives, theoretical aspects and real world examples. (pp. 24-27). Oslo, Norway: The Delta Centre

Steinfeld E (2013). Innovation and Universal Design. In Norwegian Directorate for Children, Youth and Family Affairs (Ed.), Trends in Universal Design: An anthology with global perspectives, theoretical aspects and real world examples. (pp. 28-35). Oslo, Norway: The Delta Centre

SteinfeldE, and MaiselLJ. (2012). Universal Design: creating inclusive environments. New Jersey: John Wiley & Sons, Inc

Story, M.F. (2001). The Seven Principles of Universal Design, In W.F.E. Preiser& E. Ostroff (eds.), Universal Design Handbook, New York, USA: McGraw-Hill.

ThaiHealthPromotion Foundation, (2011).Thai Health Master Plan 2011-2013. Bangkok: Thai Health Promotion Foundation.

The City of Calgary. (2010) Universal Design Handbook: Building Accessible and Inclusive Environments. Alberta, Canada: Social Policy & Planning Division.

Beyond the Physical Design: my experience of living in inclusive city of Brisbane



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"When I lived in my hometown, I used to talk to myself "Design for all" was just an ideal concept that would never come true until I have had an opportunity to live in Brisbane, QLD Australia. I found the implementation is possible if the design process really roots into human rights and social behavior of its own society"

Brisbane international airport is every foreigner's first step into this small metropolis of Queensland State of Australia. The airport here is designed in very simple way, nothing overwhelmingly attractive like any other airports I experienced before. However what impressed me most is the ease of use of all airport facilities and spatial organization such as; appropriated width of walkway,

signposts, way-finding/way-showing systems that allow people across wide ranges of abilities for easily access.



Figure 1 Illustrated drop off area of the airport with various inclusive devices installed such as hi-intensity strip, Braille pavements and ramp slope.



Figure 2 Illustrated passenger waiting hall with easy access design; appropriated width and step less pathway.



Figure 3. Illustrated an effective signpost and navigation system of the airport.

Several ways to travel from the airport into the heart of Brisbane city, private car or taxi might be more flexible options but public transportation here also offers an equal value. I noticed that the linkage corridors between airport building and public transportation point have been built with inclusive purposes without inaccessible obstructions such as; steps or narrow walkway which is enable people with a heavy wheel-luggage, wheelchair, a family with baby-stroller or cyclist etc. move from the building to transportation point with ease. Additionally,

Braille-pavement is also fully installed along the walkways that allow people with visual-impairment to travel by themselves. In case of emergency there are numbers of assisting-points at reasonable spots so that people can reach the emergency bottom at ease. Inside the transportation vehicles also provide appropriated space, handrails and shelves for storage or binding wheelchair, baby-stroller or bicycle so various types of passengers can rest comfortably. Lists of public facilities above reflected how the designers here included as many types of physical abilities as possible in their design concern.

"Simple but effective" is a phase I would like to give for the public facilities of this city.



Figure 4. Illustrated the tram entrance with a wheelchair access symbol andstep less.



Figure 6-7 Train with inclusive interior design, other good example of universal access # equitable # wheelchair and baby-stroller lots are carefully provided prior for disadvantaged with flexible infrastructure, adaptable for general people. Brisbane, Gold Coast train.



Figure 8-9-10 Bus with inclusive interior design, other good example of universal access # equitable # wheelchair and baby-stroller lots are carefully provided prior for disadvantaged, with flexible in use, if no, adaptable for general people.

"We regularly meet these types of person in our daily life. It does not mean that there are many disabilities in this city. However the built environment here is motivating and allowing them to come out" on Brisbane public bus 18/02/2016

Apart from physical design, the use of information technologies is a smart organization strategy which helps people live and travel easier around urban area. There are various mobile applications that inform people about their current location and provide choice of public commuters (city bike, bus, train, and boat) to their destination as well as timetable for future journey planning. Normally public transportation here is quiet accurate prediction for the next service. Traffic can be very busy during peak periods of the day but the application still helps people view a real-time location of the bus on their palm so, they do not have to go waiting very long time at the bus stop. This smart application is not only benefit in giving information but also reduce overcrowding at the bus stop which helps increasing service satisfaction and encourages more people to use public transportation.

In Thailand, my lifestyle was car-dependent but during one and a half year in Brisbane, urban planning and public built-environment here has supported me to live comfortably without the need of a private car. With the well-organized walking and cycling lanes, people including myself feel very comfortable and safe to walk or cycling within a reasonable distant. I found that when the public pathway is inclusively provided, it is not benefiting only walking and cycling traveler but it does also enable other types of people to share the same function.



Figure 11

Figure 11 A well-organized street footpath and street coffee shop, Brisbane



Figure 12

Figure 12 Family with baby-stroller walking on street footpath, a common scene in Brisbane

Mother with baby-stroller, a school boy with his skateboard, or roller skate (in the picture 12) an elderly people with walking device or visual/mobility impairment (in the picture 13-14)

moving independently with on various kinds of devices in public space becomes a very common scene of Brisbane city.



Figure 13



Figure 14

Figure 13 an easy access pedestrian cross.

Figure 14 blind walking with a white stick at Queen Street mall, a common scene in Brisbane.

Does Australia have a larger number of walking/cycling travelers, mothers, elderly or persons with disability compare to my country? I do not think so. I think it happens because of the easy access of all public functions and facilities which their government tries not to exclude anyone from their own society. And the inclusive built-environment plays very important role to enable people across different types of physical abilities to come out of their residents, to share the public facilities, to go to work and spend their life as a general ability body.



Figure 15



Figure 16

Figure 15-16 the area and space organization with inclusive design, encourage people with wide range of abilities to share the space and facilities, Noosa, Queensland, Australia.

**“Why inclusive design is succeed in Brisbane but not in Thailand?
Why the designer in Brisbane did invent so many inclusive devices
for public facilities while Thai designer didn’t?”**

As a designer who spent many years studying and involving with the social movement that tried to introduce the Universal/Inclusive Design into public facilities in Thailand, unfortunately the implementation has come out not much advantage. When discussing about public facility designs, I think the task is not only to create a single piece of “good product” but how to connect people to the design and sentimentally share to others. Of course, designers and their specific skills about Inclusive Design devices are important but I think it requires other further concerns beyond the matter of physical design which contributes inclusive society to success. The real issue of implementation may not be about physical design alone but it roots into the foundation of social structure as well as government policy regarding the human rights and how people collectively understand it.



Figure 17



Figure 18



Figure 19

Figure 17-18-19 Reflecting how the local government concern in all details of public facilities, several signs on walking and cycling pathway to remind user about sharing facility for others and speed warning for cyclist

For deeper understanding, I have made a few comparisons about inclusive design facilities in public areas between Brisbane and Thailand. Street footpath in Brisbane and Bangkok regularly has similar width which is likely complying with international standard in term of measurement. Brisbane has cleaner and more success in installing Braille-pavements, handicap ramp slope and organizing space for street trees and walkway. There are some street shops but all of them are located on provided areas never go across pathway. Footpath in Bangkok also has Braille-pavements and handicap ramp slopes installed in some areas but not very well built, there are street trees and walkway but many areas have been occupied for private business profit such as; street-shops, decorative pot plants and advertising light-boxes etc. All those additional objects have been set across and blocked the walkway cause difficulty for walking people, visual impairment to access the guiding pavement and impossible for wheelchair to move through the pathway.



Figure 20



Figure 21

Figure 20-21 Street footpath in Bangkok, Thailand. Although many places have well-organized but often all spaces have been occupied by shops and other personal purposes. It is not possible for wheelchairs or mobility disabilities to pass through, thus they have to take an unnecessary risk to go on traffic surfaces.

Another example is about how people behave and share their public spaces and facilities. This story I am sharing my experience about how people with car and non-car modes share their traffic space in Brisbane and in Bangkok. In fact, Brisbane and Bangkok has the same traffic system with various used of similar major traffic signs which Brisbane has more organized spaces and assistive devices for non-car mode travelers such as; pedestrian crossing buttons, footpath ramp slope, Brielle-pavement, separated bike lane/walk lane etc.

In some areas in Bangkok has the same devices and spatial organization as well but the way people using their public space is a bit chaos. For example, the pedestrian crossing sign (Zebra strip), according to international road-rule, the driver must slow down and, if necessary, stop to any pedestrian on a pedestrian crossing. However, from my direct experiences the drivers in

Brisbane behave perfectly complying with the rule while I have very rarely seen driver slow down when crossing pedestrian as if this rule never exist in Thailand.

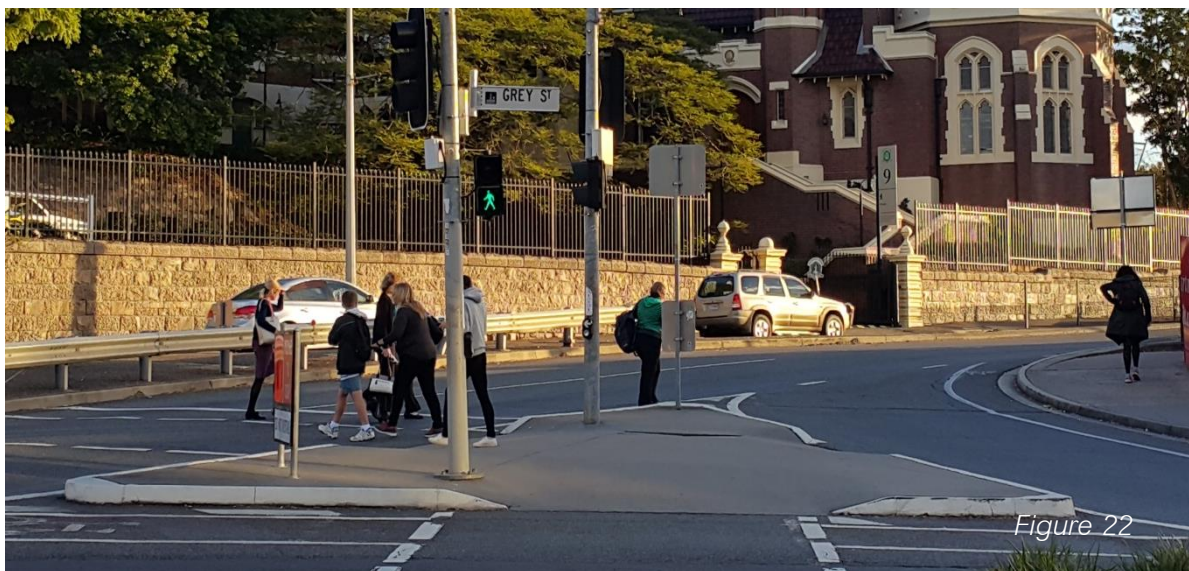


Figure 22 Well-organized space and assistive devices at the street junction, Southbank Brisbane

Originally, most of traffic rules are made for personal safety purpose. However, it is not only driver who does not follow the rules. In Brisbane, people always wear helmets very time when traveling on bicycling or skateboard and never go on car-traffic surface unless there is a share road sign. In Thailand, many people refuse to put on a helmet for various reasons and that

resulted in very high rate of injuries or dead in cycling traveler. Like any other cities, the legal is still not for cyclist wearing of helmet. However, during the past decade there are many social movements in Thailand encouraging people to commute by bicycle and requesting their local government to build more bike lanes. If they really want to make bicycle another choice of commuter, the helmet rule is worth considering.

“A greater voice combined with greater responsibility is the key function to reduce disadvantage, increase social, civic and economic participation”

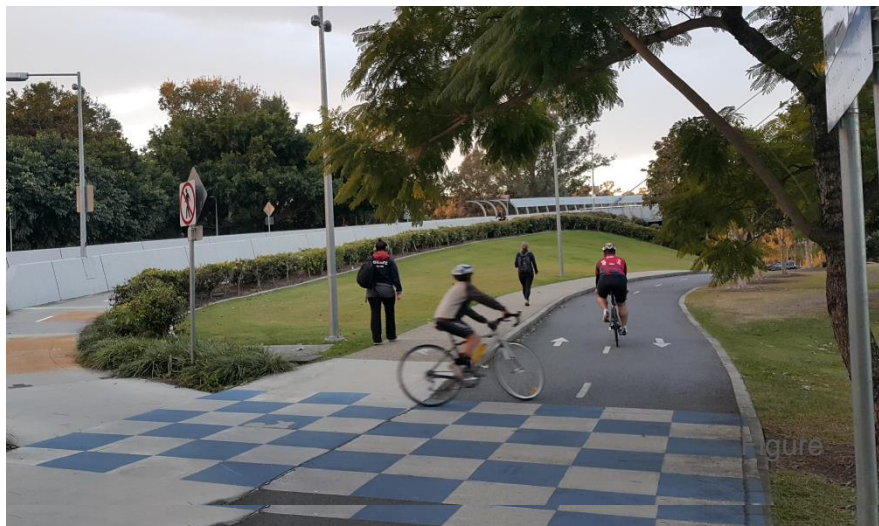


Figure 23 Well-organized walking and cycling lanes at University of

Though the eyes of designer who try to implement inclusive design in her own country, the big question is how the professional design skill alone can resolved the mentioned problems above? Our public spaces are being used for private profits or any other individual purposes; motorcycle rides on footpath/bike lane because it is emptier and faster, parking car on street side because it is closer to destination, making a food shop on footpath because the building rental rate is unaffordable and a lot more than I can mention here.

I admit that inclusive design is a new social movement, at least for Thailand context. It is too soon to blame anyone, but I think how people define "Rights" is very important cause that contributes a series of problems. I believe that it is not because more selfishness in Thailand. There are many other reasons that motivate people to behave against or violate the rights of others (disadvantaged) - economic problems, uneducated and so on. And I am not at all writing this article to blame my own country but I just want to present the facts that still exists, the fact that people have been excluded, disabled and left behind. Inclusive Design is not only the conception promoting for the rights of disadvantaged, but it benefit for everyone. It is about include everyone into social accountability which eventually will empower all major parts of social structure; politic,governance, economic and education etc. My experience living in Brisbane showed me possibility how to enable "ALL" people to live independently in the same society. The key to achieve this state is "to make (people) voice greater and offer greater responsibility." This mission cannot be success without functional co-operation of governance, society and different fields of knowledge. I really believe that when everyone is enabled, therefore, we are having more hands and all hands together help building up our brighter future.



Figure 24 several choices of access are provided at the entrance of library; blind, wheelchair and walking people Griffith University, Gold coast campus, Queensland

Development of 'Chao Phraya for All' to Create Inclusive City



Asst.Prof. Antika Sawadsri (PhD)

***Director of Inclusive Designed Environment and Research- IDEaR
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Introduction

The project ran by the Bangkok Metropolitan Authority collaborated with KMITL. It aims to increase public space on river rim to be equally accessible for all, by using inclusive design process. The study proposes six development plans. The challenge of the project was to compromise between public's and private's different interests on accessibility to 'public space'.

While in many big cities, accessibility to public space for everyone is difficult, people with physical and economic disadvantages found it is even more challenging. Riverfront of Chao Phraya River has been seen as one of the best Bangkok's attraction. This project, therefore, aims to create more accessible public places for those populations such as disabled people, low-income people and

older population in the process of developing riverfronts.



Development of 'Chao Phraya for All' to Create Inclusive City

The project ran by the **Bangkok Metropolitan Authority** collaborated with **KMITL**. It aims to increase public space on river rim to be equally accessible for all, by using inclusive design process.

このプロジェクトは、 Bangkok 首都圏庁と King Mongkut 工科大学ラカバン校によって進められており、社会包摂に配慮したデザインプロセスによって、チャオプラヤ川沿いに誰もが利用できるパブリックスペースを生み出そうという取り組みです。

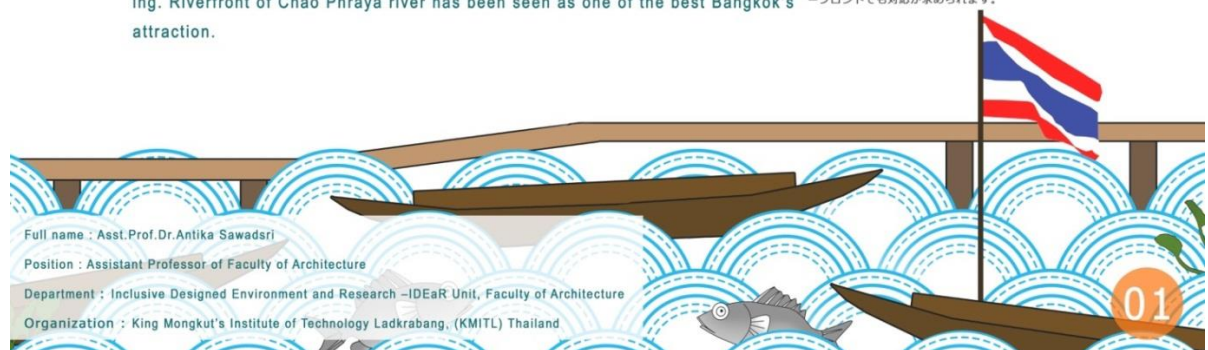
The study proposes six development plans. The challenge of the project was to compromise between public's and private's different interests on accessibility to 'public space'.

提案は 6 つの開発計画から構成されています。計画を進めるにあたっては、パブリックスペースへのアクセスに対する、行政サイドと民間サイドの異なる関心を、いかに折り合いをつけるかという課題がありました。



While in many big cities, accessibility to public space for everyone is difficult, people with physical and economic disadvantages found it is even more challenging. Riverfront of Chao Phraya river has been seen as one of the best Bangkok's attraction.

多くの大都市で、パブリックスペースを誰もが利用できる訳ではないものの、身体的、経済的なハンデを持つ人々にとってはさらに困難になります。Bangkok の持つ最大の魅力の一つである、チャオプラヤ川のリバーフロントでも対応が求められます。



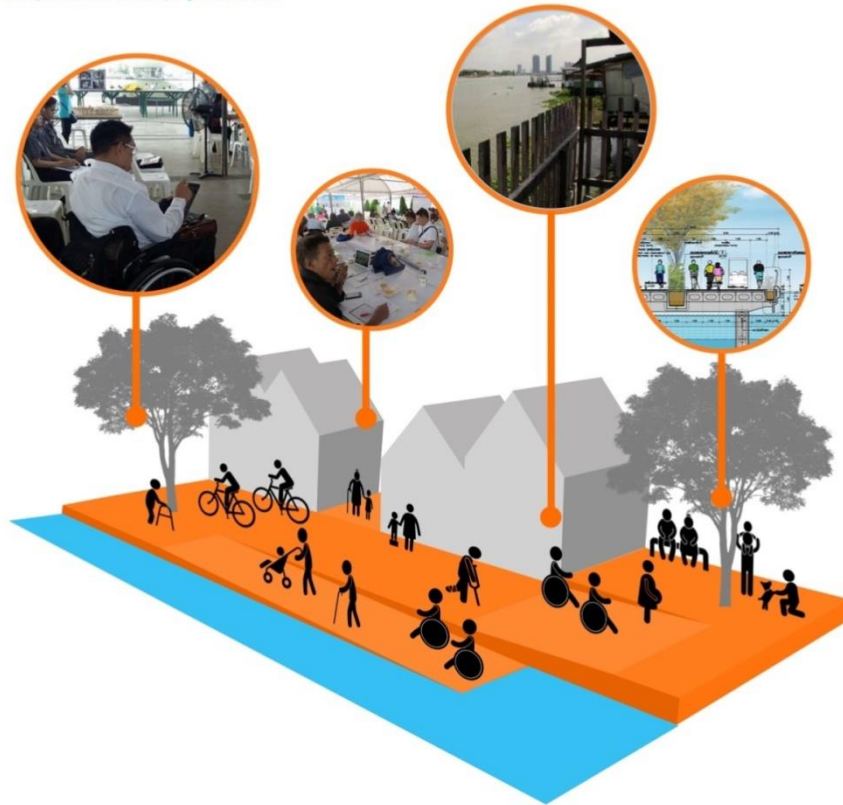
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'Chao Phraya for All'

This project, therefore, aims to create more accessible public places for those populations such as disabled people, low-income people and older population in the process of developing riverfronts.

そこでプロジェクトでは開発プロセスにおいて、障がい者の方や、低所得者層、高齢者の方々によりアクセスしやすい公共の場の創出を目指しています。

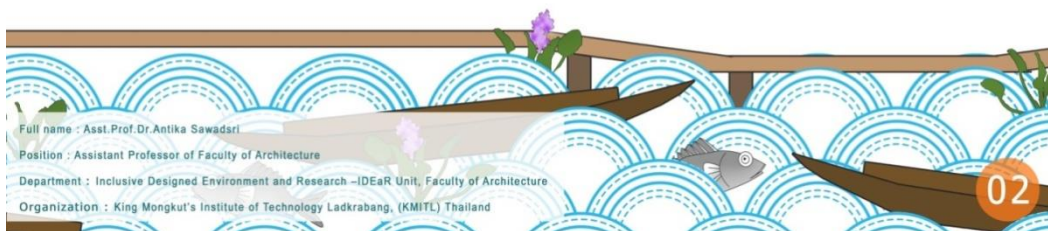


The Universal Design concept is applied for river-walk design such as flexible use for cycling and walking, and zero-step pavements for effortless pedestrians. Furthermore, the project includes various groups of stakeholders while gathering their requirements alongside the riverfronts.

ユニバーサルデザインのコンセプトは、サイクリングやウォーキングのための柔軟な設計や、気軽に散歩できるような歩道をなくすこと、さらには多様なステークホルダーによる意見を取り込むことにも反映されています。

The area of this study consists of the first seven kilometers each side of Chao Phraya river rim, where the water passes through north of Bangkok.

対象地は、バンコクの北を流れるチャオプラヤ川の兩岸それぞれ7kmです。



The role Universal Design concept

The Universal Design concept is applied for river-walk design such as flexible use for cycling and walking, and zero-step pavements for effortless pedestrians. Furthermore, the project includes

various groups of stakeholders while gathering their requirements alongside the riverfronts.

The area of this study consists of the first seven kilometers each side of Chao Phraya river rim, where the water passes through north of Bangkok.



The project arranged focused group discussions with residents in 35 communities located in the area of study. There were at least three visits for each community to include residents' opinions toward development alongside the river.

プロジェクトでは、対象地内の35のコミュニティの住民と議論を重ねるべく、各コミュニティの意見を反映させるために少なくとも3回は足を運びました。

The participation team also arranged meetings with 14 related state agencies and private organizations toward their interest of land use and perception of 'public spaces'.

加えて、土地利用や公共空間に関心のある14の関係省庁や民間団体とも会議をもち、チャオプラヤ川に関する議論にもインタビューを行いました。

Furthermore, the public figures who have knowledge and experiences related with the Chao Phraya were interviewed in depth.

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03

The project arranged focused group discussions with residents in 35 communities located in the area of study. There were at least three visits for each community to include residents' opinions toward development alongside the river.

The participation team also arranged meetings with 14 related state agencies and private organizations toward their interest of land use and perception of 'public spaces'. Furthermore, the public figures who have knowledge and experiences related with the Chao Phraya were interviewed in depth.

After involved with thousands of stakeholders and participants including three public hearings, the study proposed six development plans for two sides (14 kms. in total) along Chao Phraya riverfront. The plans comprised of 1) accessible walkway to connect the existing public transport (boats, trains and cars), 2) improving existing floodwall, 3) create accessible public piers, 4) river front gazebos, 5) public service nodes, and 6) accessible river linkages.

The study also found that more than 220,000 square meters of public waterfront have been being invaded for privately used such as restaurants, luxury hotels, private piers, and private residences. By creating public walkway on the river bank can return lands back to the public.



'Chao Phraya for All'

After involved with thousands of stakeholders and participants including three public hearings, the study proposed six development plans for two sides (14 kms. in total) along Chao Phraya riverfront.

数千にも及ぶステークホルダーの参加した3度の公聴会を踏まえ、6つの開発計画をチャオプラヤ川両岸14 kmに提案します。

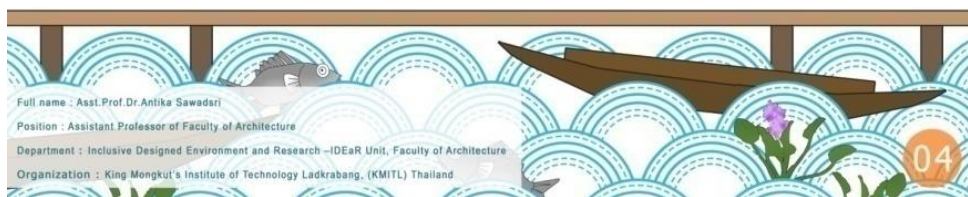


The plans comprised of 1) accessible walkway to connect the existing public transport (boats, trains and cars), 2) improving existing floodwall, 3) create accessible public piers, 4) river front gazebos, 5) public service nodes, and 6) accessible river linkages.

計画は、1)既存の公共交通（ボート、鉄道、自動車）に接続する、良好な歩行空間、2)既存堤防の更新、3)公共的な船着場の整備、4)川沿いのあずまや、5)公共サービス軸、6)河川との接続性の確保、の6つで構成されます。

The study also found that more than 220,000 square meters of public waterfront have been being invaded for privately used such as restaurants, luxury hotels, private piers, and private residences. By creating public walkway on the river bank can return lands back to the public.

調査の結果、22万㎡以上の公共的なウォーターフロントが、レストランや高級ホテル、私的な船着場、住宅により占有されていることがわかり、公共的な遊歩道の創出によって、川岸をパブリックスペースとして取り戻すことができます。



- **Ameliorate socio-economic inequality:**

As Chao Phraya riverfront contains historic views of the city and one of growing economic area, it has long been being occupied by the private sectors for decades. Hence, low-income people hardly

access to such development, unless living in poor-condition settlements on the bank of Chao Phraya. The project proposes walkway which everyone can walk or ride bicycles as the cheapest and sustainable mode of transport.

●Creating physical and socio-cultural accessibility for all

The majority of accessibility to Chao Phraya riverfront has been being managed by private-service providers, boat service, in particular. This mode of transport limits access of people with physical challenges (disabled/older people) to participate their social activities along the riverfront. The alternative travel mode is an access by walkway to connect with bus and rail system with the existing one.

“We look forward to envisage more inclusive city on the map of ASEAN culture.”

Acknowledgement

This project won International Association for Universal Design in 2017 as the Gold Award in the category of ‘regional planning’. Below is the citation about this project from the IAUD Award’s jurors.

“An exemplary, user-centric design development study seeking to create a public, accessible and inclusive waterside amenity along both sides of a 7km stretch of the Chao Phraya the major river in Thailand. Very large numbers of stakeholders, and in particular older, disabled and low-income end-users were consulted, including residents of 35 communities, 14 state agencies and private

organizations. The outcome was six development plans covering 14kms of riverside, offering high levels of access to the river frontage for wheelchair-users, cyclists and pedestrians, improved flood protection, accessible river linkages and historic views of the city.

The jury was impressed with the ambition of the project, the coherence of the planning process and the exemplary level of user-involvement and consultation. In particular it praised the emphasis on preserving and respecting the diversity and uniqueness of local and regional human environments, which reflect the diversity of human population and cultures.”

Characteristic of Wheelchairs: problems and needs of persons with mobility disabilities in Thailand context



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This paper aims at 1) studying problems in the use of wheelchairs which were compiled under the Rehabilitation for Persons with Disability Act B.E.2534 and the Promotion and Development of Persons with Disability Act. B.E.2550.2) studying the needs and comments of the wheelchair users on wheelchairs for their daily lives. The data was collected from people with physical disabilities who received wheelchairs from Sirindhorn National Medical Rehabilitation Centre (SNMRC), hospitals which are a network of SNMRC, and mobile clinics of SNMRC. Samples were selected by the stratified random sampling method. The questionnaires were posted to the samples and they replied by post. The descriptive statistics were used for analyzing the data including percentage, average, frequency, standard deviation and Chi-square test. The data regarding personal factors, problems, needs and comments was analyzed.

The results found that the majority of the samples had increased participation in community activities after having a wheelchair. However, caster wheels, forks, and caster barrels were the wheelchair parts which did not respond to their daily activities at the highest level. While reclining parts did not respond to those activities at the lowest level. The physical environment in their living space and public buildings were indicated as the problems that limited participation of wheelchair users. Moreover, repairs and maintenance were indicated as the main needs of the samples.

Regarding the results, properties of the wheelchair should be improved especially strength and durability. This is in order to respond to the activities and environment of the wheelchair users. Furthermore, in order to meet the needs of the users, repair services should be provided locally; for example local repair centers should be developed in the provinces.

KEY WORDS: WHEELCHAIRS / PHYSICAL DISABILITIES/ MOBILITY DISABILITIES / DAILY LIVING

4.1 Introduction

It is undeniable that disabled people are able to do many things as parts of social members as well as able people. Regarding the report of World Health Organization (WHO), 10% of the world population have disabilities (Sheldon & Jacobs, 2007) However, the National Statistic Office of Thailand has reported that there are 1,871,860 people living with disabilities in Thailand, or approximately 2.9% of the population (the National Statistic Office, 2007). 38% of those have registered under the Rehabilitation for Persons with Disability Act B.E.2534 and the Promotion and Development of Persons with Disability Act

B.E.2550. For the needs for assistive devices, it has been reported that 857,312 disabled people or 45.8% of total number need assistive devices. However, 20.8% of those people are unable to access to a device. Only around 3.8% have devices but never be used due to many reasons such as unable to use it because complicated, pain, not satisfy the image, prefer care giver than devices etc. (the National Statistic Office, 2007). This descriptive study for studying problems in the use of wheelchairs which were received under the Rehabilitation for Persons with Disability Act B.E.2534 and the Promotion and Development of Persons with Disability Act.B.E.2550.and studying the needs and comments of the wheelchair users on wheelchairs for their daily lives.

4.2 Method

The data was collected from people with physical disabilities who received wheelchairs from Sirindhorn National Medical Rehabilitation Centre (SNMRC), hospitals which are a network of SNMRC, and mobile clinics of SNMRC. Samples were selected by the stratified random sampling method. The questionnaires were posted to the samples and they replied by post. The descriptive statistics were used for analyzing the data including percentage, average, frequency, standard deviation and Chi-square test. The data regarding personal factors, problems, needs and comments was analyzed.

4.3 Results

4.3.1 Data of personal factors and daily living of samples

Four hundred wheelchair users were included in the study. The majority of those were female(56.0%), age between 31-45years (43.0%), age average 39.86 years(SD 15.16). When divided

by vocation, the majority of the samples were agricultures (56.3%). Regarding types of disability, the majority of the respondents were people with paraplegia (27.5%), amputee (25.5%) and cerebral palsy (18.3%) respectively.

Considering types of wheelchair, the data showed that 'independent wheelchair' was the type that the samples currently use in the highest number (50.8%). Moreover, the respondents reported that the present wheelchair received in the year 2008 (30.8%). Over a half of the total number of the sample received the wheelchair from hospitals (54.5%). Approximately three four of respondents have modified their wheelchair in order to meet their needs (73.5%). All of the respondents reported that they sit in wheelchairs over than one hour per day (100%). And most of them travel in the wheelchair less than one kilometer per day (67%) as the details in Table 1.

The data relating to living environment of the wheelchair users showed that the majority of samples lived in a one level house (86.3%), concrete and flat terrain (61.3%), and the areas around their communities were clay and rough (21.3%).

4.3.2 Problems and satisfaction for wheelchairs

It was found that the average level of satisfaction for the wheelchair divided by activities in daily living from high to low including (Item 1.) 2.47 (Item 2) 2.45 to (Item 3) 1.89 respectively. Details are in Table 2.

Regarding safe and durability, it was found that the respondents satisfied the wheelchair parts in term of safe and durability from highest to lowest levels were (item 1.) 90.0% (item 2) 86.5%, and (item 3) 48.0% as shown in Table 3.

4.3.3 Relationships between personal factors and satisfaction and problems for wheelchairs

Relationships between personal factors (age, gender, vocation, types of disability, duration of being disabled, types of wheelchair, advice and training), daily living (types of ground/terrain, duration of using the wheelchair) and wheelchair parts which were three top of often break down (brakes, castor wheels, forks with barrel and bolts). In case of reclining system which were in only one type of wheelchairs (N=43, 10.75%). The relationship of durations could not be analyzed as all the samples used wheelchair longer than one hour. There was no significant relationship between safe and durability and personal factors as well as daily living($p=0.05$). The details are shown in Table 4.

Relationships between personal factors (age, gender, vocation, types of disability, duration of being disabled, types of wheelchair, advice and training), daily living (types of ground/terrain, duration of using the wheelchair) and wheelchair parts which were three lowest three lowest satisfaction levels on the use of wheelchair in daily activities (transfer between different levels, outdoor activities, recreation and hobby). In case of reclining system, it has in only one type of wheelchairs, only 43 respondents could reported on this part (N=43, 10.75%). The relationship of durations of this type of wheelchair could not be analyzed as all the samples used the wheelchair longer than one hour. There was no significant relationship between safe and durability and personal factors as well as daily living($p=0.05$). The details showed in Table 5.

Table 1 Numbers and percentages of the respondents divided by types of wheelchair

Types of the current wheelchair	Number	%
Independent wheelchair	203	50.8
Standard wheelchair	96	24.0
Standard wheelchair for children	58	14.5
Reclining wheelchair	43	10.8
Total	400	100.0
Year that receive the current wheelchair (B.E.)		
2548	116	29.0
2549	102	25.5
2550	123	30.8
2551	59	14.8
Total	400	100.0
Number of wheelchair have received (คัน)		
1	34	8.5
2	231	57.8
3	135	33.8
Total	400	100.0
Providers		
Hospitals	218	54.5

Types of the current wheelchair	Number	%
SNMRC	126	31.5
Mobile clinics	56	14.0
Total	400	100.0
Advice for the use and maintenance of the wheelchair		
Yes	400	100.0
Modification		
Yes	294	73.5
No	106	26.5
Total	400	100.0
Duration of using the wheelchair at school/workplace/community		
>1 hr.	400	100.0
Distance of using the wheelchair daily		
<1 km.	268	67.0
1.1-2.0 km.	132	33.0
Total	400	100.0

Table 2 Average and standard deviation of satisfaction for the wheelchair divided by activities in daily living

Activities	Average	SD
1. Domestic activities e.g. eating, toileting, dressing, housekeeping, and cooking etc.	2.47	.749
2. Satisfaction	2.45	.577
3. Comfort	2.42	.619
4. Community participation	2.37	.709
5. Transfer – same levels	2.36	.618
6. Recreation and hobby e.g. sport, music, art, reading, watching movies, and gardening etc.	2.23	.760
7. Outdoor activities e.g. work, school etc.	1.96	.499
8. Transfer – different levels	1.89	.547
Total	2.59	.221

Table3 Percentages of the opinions on safe and durability divided by the parts of wheelchair

Wheelchair parts	Safe and durable (%)
1. Rear wheels and hand rims	90.0
2. Rear wheels with wire or plastic spokes	86.5
3. Hand rest	78.8
4. Tires, axel, and barrel	67.5
5. Foot rest	62.0
6. Bolts	59.5
7. Strength of the frame	58.0
8. Brakes	51.3
9. Seat and backrest	50.3
10. Castor wheels, forks and barrel	48.0
11. Reclining system *	46.8
Average	63.5

***Note: the number of respondents who received reclining wheelchairs was 43(n=43)**

Table 4The relationships between opinions on personal factors and the top three wheelchair parts that often break down

Wheelchair parts Personal factors and Daily living	Breaks	Castors, forks and barrel	Bolts
1. Age groups	.119	.089	.000*
2. Gender	.920	.002*	.752
3. Vocations	.916	.335	.000*
4. Types of disability	.965	.029	.000*
5. Duration of being disabled	.079	.368	.088
6. Types of wheelchair	.855	.016	.000*
7. Advice and training	.058	.395	.817
8. The environments/grounds	.969	.038	.000*
9. Distance of using the wheelchair	.618	.580	.000*

Note: statistical significance at .05

Table 5 The relationships between personal factors and three lowest satisfaction levels on the use of wheelchair in daily activities

Satisfaction Personal factors and daily living	Transfer - different levels	Outdoor activities	Recreation and hobbies
Age groups	.000*	.000*	.011
Gender	.001*	.000*	.220
Vocations	.000*	.000*	.030
Types of disability	.000*	.000*	.000*
Duration of being disabled	.011	.009	.489
Types of wheelchair	.000*	.000*	.001*
Advice and training	.417	.343	.358
The environment/grounds	.733	.390	.426
Duration of using the wheelchair	.a	.a	.a
Distance of using the wheelchair	.000*	.000*	.000*

Note: statistical significance at .05

4.4 Discussion

The results of this study could confirm the concept of WHO (2008) which emphasize on a consideration of assessment and providing a wheelchair which is appropriate to physical status and environment of the user.

There was a statistically significant relationship between types of wheelchair and daily living of the users. Wheelchair parts reported as the main limitation for daily living including castor wheels, forks and barrel. While reclining system was reported as a limitation in the lowest level. It was found that there was a statistically significant relationship between the environment and faults of castor wheels. The Samples who reported faults of wheelchair mostly were farmers and had to use the wheelchairs in the rough areas for a long time. Moreover, types of wheelchairs affected the satisfaction of the users when perform activities both indoor and outdoor such as eating, toileting, dressing, housekeeping, cooking etc. They also were able to do recreation and hobbies such as sport, music, art, reading, movies, and gardening etc. There was a significant relationship between the wheelchair and outdoor activities (work/school) and recreation and hobbies (sport, music, art etc.). Regarding fault reports, most respondents reported the faults of their wheelchair and repaired by themselves and repaired by hospitals, SNMRC, bicycle shops. However, some parts were unable to find out spare parts and the user had to change to a new wheelchair. As a result, the provision of wheelchairs for people with physical disability should consider factors relating to daily living of the users.

The study found that there was a statistically significant relationship between personal factors and daily living and faults

of wheelchair parts including brakes, castor wheels, forks and barrel ($p=.05$).

It has been claimed that the major concepts of improvement and maintenance of functions of a person with physical disability including reducing pathology, compensation of illness, design activities, environmental design, assistances from others, and application of assistive technology and services (Edyburn, Smith, Schwanke & Fonner, 1995)

Furthermore, personal factors and daily living depend on satisfaction level for wheelchairs. The results showed that activities that meet users' needs and environment at the three lowest levels (transfer between different levels, outdoor activities, recreation, and hobbies) at statistical significant (p -value = 0.05). As it has been claimed by Bergstrom & Samuelsson (2006) that comfort and easy to use are the main issues that affect satisfaction level of wheelchair user. Therefore, wheelchair is a device for mobility function. In order to assess effectiveness of a wheelchair, effects on functions and participation of the users should be considered as well as satisfaction level. It could be supported by the study of Chan & Chan (2007) and Chaves, Boninger, Cooper, Fitzgerald, Gray & Cooper (2004). As results, users' satisfaction has a strong relationship with characteristics of wheelchair, daily activities, and environment.

This is because performances of those people when using a wheelchair may result in other factors such as levels of disability, self-acceptance, and adaptation for illness etc. Therefore, specific assessment, various types of wheelchair, wheelchair skill training, and follow up are needed for the provision of this kind of assistive devices in order to provide a device that meets the needs of the users and is appropriate to their living circumstances. The

appropriate wheelchairs could help the users to improve their performances in daily activities and participation which result in the improved quality of life.

4.5 Recommendations for further development

4.5.1 Wheelchair parts which are safe and durable

- a) Wheelchair parts that appropriate to different types of environment or areas should be considered.*
- b) Wheelchair parts should be durable and meet the needs of users. This is because disabled people live in different areas and have different activities. Wheelchairs should response to their daily activities and environment in order to ensure their independences.*
- c) Training for wheelchair skills and advice for maintenance should be provided to all users.*
- d) Training on the wheelchair services and repair should be provided for health personnel who work in this field. The development of one stop wheelchair service centers in provinces should be considered.*
- e) Spare parts of wheelchair should be available in local facilities.*

4.5.2 Satisfaction on the use of wheelchair

- a) All users should be assessed and prescribed a wheelchair that meets their needs and the environment. The assessment and prescription should be done by health personnel or therapists who are well-trained specifically in wheelchair services.*
- b) All users should be well-trained for the wheelchair that they receive. The training should be including maneuver the*

wheelchair on different terrains, transfer from the wheelchair to bed or other places.

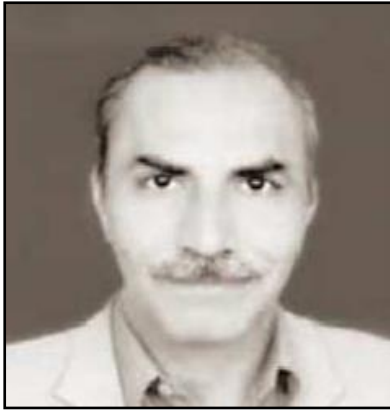
4.6 Recommendations for future studies

- a) Further studies should be considered for investigating wheelchair designs that appropriate with different environment in all regions of Thailand.*
- b) In order to identify opinions of the wheelchair users more clearly, qualitative research methodologies such as focus group, in – depth interview etc. should be considered.*
- c) Factors that may impact the relationships between wheelchair types and the users should be further studied.*

4.7References

- Bergstrom, A.L. & Samuelsson, K.(2006).** "Evaluation of Manual Wheelchairs by Individuals with Spinal Cord Injury". *Disability and Rehabilitation: Assistive Technology*. Vol.1, No.3, pp. 175–182.
- Chan, S.C. & Chan, A.P.(2007).** "User satisfaction, community participation and quality of life among Chinese wheelchair users with spinal cord injury: a preliminary study". *Occupational Therapy International*. Vol.14, No.3, pp. 123–143.
- Chaves, E.S., Boninger, M.L., Cooper, R., Fitzgerald, S.G., Gray, D.B., Cooper, R.A. (2004).** "Assessing the influence of wheelchair technology on perception of participant in spinal cord injury".*Archives of Physical Medicine and Rehabilitation* . Vol.85, pp. 1854–1858.
- Cochran, William G. (1977).** *Sampling Techniques 3rded.* New York: John Wiley & Sons, Inc.
- Collett, L., De Villiers, K., Jenkins, C., Potter, C., & Van Tonder, A. (2007).** "So that's my life... An exploration of the effect of Worldmade Rough Terrain Wheelchairs on the quality of life of disabled adults in the Western Cape". University of Cape Town. Unpublished honours thesis, University of Cape Town, South Africa.
- Collins, D.M.;Fitzgerald, S.G.;Martin, S.G.;Impink, B.G.;Cooper, R.A., (2003).** "Satisfaction of Individuals in the Community With Wheelchairs and Service Delivery", RESNA 26th International Annual Conference.
- Cook, A. M., & Hussey, S.M. (2002).** *Assistive Technologies: Principles & Practice (2nded.).* St Louis, Mo: Mosby–Elsevier.
- Cushman,L., &Scherer,M.(1996).** Measuring the relationship of assistive technology use, functional status overtime, and consumer–therapist perceptions of ATs. *Assistive technology*,8,103–109.
- Devitt, R., Chau, B. &Jutai, J. (2003).**"The Effect of Wheelchairs Use on the Quality of Life of Persons with Multiple Sclerosis".*Occupational Therapy in Healthcare*, Vol. 17, No. 3, pp.63–79.
- Dave L. Eddyburn, Roger O. Smith, Todd D. Schwanke& Kelly S. Fonner(1995).**The ATOMS Project: Measuring Assistive Technology Outcomes. www.r2d2.uwm.edu.
- Joanne G. Schwartzberg,MD, V. Kiki Kakavas, MA ;Sheila Malkind, MA,MPH, and Peter Furey,MPH, Carolyn Changa, and MyungSookChung,MPH,PhD. (1996).***Guidelines for the use of Assistive*

- Technology:Evaluation, Referral,Preacription.Department of Geriatric Health American Medical Association 515 North State Street Chicago.**
- Karmarkar, A.M., Collins, D.M., Kelleher, A., & Cooper, R.A. (2009). "Satisfaction related to wheelchair use in older adults in both nursing homes and community dwelling". Disability and Rehabilitation: Assistive Technology. Vol.4, No.5, pp. 337–343.**
- McCambridge, M. (2007)."WorldMade 3 Field Trial and Evaluation". Cagayan de Oro, Philippines.Wheelchairs for Mindanao project.**
- Murray, R.L,&Zentner, J. (1975). Nursing Assessment and Health Promotion through the Life span. Englewood Cliff NJ:Prentice Hall.**
- Oklahoma Olmstead.(2004).Oklahoma Olmstead Strategic Planning Committee Interim Report July 15, 2004 .www.csctulsa.org**
- Sheldon, S. & Jacobs, N.A. 2007.Report of A consensus conference on wheelchairs for developing countries. Bangalore, India, 6–11 November 2006. ISPO.**
- Sonn U, Davegardh H, Lindskog AC, Steen B. (1996). The use and effectiveness of assistive devices in and elderly urban population.Aging (Milano). June;8(3):176–183.**
- Sonn, U.,&Grimby, G. (1994). Assistive devices in an elderly population studied at 70 and 76 years of age. Disability and rehabilitation,16,85–92.**
- Turner, J.S. and Helms, D.B. Lifespan Development, Holt-Sounders, Tolyo, 2nd. ed., 1983 Winkler, S.L.H., Fitzgerald, S.G., Boninger, M.L., & Cooper, R.A.(2008). "Relationship Between Quality of Wheelchair and Quality of Life", Topics in Geriatric Rehabilitation, Vol. 24, No. 3, pp. 264–278.**
- World Health Organization (2001).Activities and Participation", International Classification of Functioning, Disability and Health (ICF), Geneva, Switzerland, page 123–170.**
- World Health Organization (2008).Guidelines on the provision of Manual Wheelchairs in less resourced Setting, Geneva, Switzerland.**
- World Health Organization. (1980). International classification of impairment, disabilities and handicap : A manual of classification relating to the consequences of disease. Geneva, Switzerland**



Letter from the Chairman's Desk

By Sunil Bhatia PhD

One day it was unusually warm weather and I was sitting in office experiencing uneasiness and wished to put on the fan but I could not because of many loose papers were lying around on top of my table and with air movement of fan rotation could disturb all arrangement. I was struggling for fulfilling my wish by some other means and noticed a paper weight was lying in the corner of table and I placed that over piles of loose papers and was assured it would be all right as fan moved. How does idea of design of paper weight strike? Is it not the simplest man made design with weight as driver?

At what point did our ancestors understand the use of weight. When I looked at my office walls that are straight, robust and bearing loads of other floors amazed me by thinking that a mason tool of heavy iron weight of small cone shaped pointed tip on the bottom suspended from a string i.e. plumb bob or plummet used as vertical reference line or plumb line (water level works for horizontal level) for checking the joining of placing the bricks one over the other in a straight way as desired by mason . A minute wrong placement of bricks over bricks weakens the strength of wall and invites accidents. I feel like to salute the wisdom of our ancestors who had used the simplest concept of weight for erecting high rise buildings with simplest tool of plumb bob. When I look at my wrinkle free shirt because a heated heavy weight

iron press moves over shirt that remove and straightens it .That weight concept has given us a profession like laundry man for pressing the dresses.

There is theory that man first understood that those stones were unable to turn with manual individual or collective power could be moved with placing wooden log under it and was working as lever for shifting and later on keeping load over sludge placed over wooden log moves forward as well as backward as the direction of force is applied. Then they place two wooden round logs and placed the sludge for carrying load for movement was probably first man made design where weight was central idea. Design of wooden wheel where two concentric circles are fixed with wooden spokes and inner circle can accommodate axel for bearing weight all thus could help in free and easy movements was out of the blue design for transportation of weights came much later. Wooden circle would never bear of load but design of wheel could where centre has smaller circle to accommodate axel. That design of wheel was used in different ways like circumference with grooves that guide the rope movement for easy transportation as we witnessed in lifting water from well. Sometime teethed wheel helps in power transportation for lifting weight as we witnessed in gear box of automobiles. Later on idea of covering rim of the wheel with air filled tube by covering with tyre for meeting the smooth movements of transportation for meeting the challenges of uneven road has revolutionized the concept of transportation. The need of spring leaf or shock absorbers was realized when weighted products were damaged while transporting due to motion jerks. That also contributed in design of various types of knots for handling different nature of items with different weights. Number of pulleys and chains help in

lifting heavy weights items and there are specialized labors that has group of people masters in uploading the unusually heavy weights where fork or ordinary lifts can damage the items.

How does idea of wooden rolling pin for making bread placed over platform made of flat stone is based on dynamic weight, later its extension was reason of designing road roller for compressing road into flat surfaces strike with our ancestor's mind. Concept of weight behaves in different way in water or other liquids or in air or gases. That thrust is natural and man used in designing for transporting different types of weights like boat, ship, even submarine. Another natural phenomenon is evaporation of liquid that reduces the weight gradually and that has been beautifully used in designing 'drinking bird' toy. Hot air becomes light and moves upward that helped in designing balloon. In modern time weight was used in automatic wrist watches by placing small weight at the end of spring for misbalancing and as hand a move that shakes the spring and extra weight tighten it. Counter weight in lift helps in smooth vertical movements.

It is natural that everything is attracted toward earth and falling items striking with ground produces different consequences as per their weight and states. A ripen light weight fruits falling chances are it does not break where same condition of heavy weight fruits may easily break. Ripen fruits behaves in different manner after falling but it is not applicable to all. Some fruits gain weight as ripen or a few loses weight after ripening. That knowledge of falling weight helped in designing man made products like peg or hook to hold the items in air and not to allow fall. This philosophy of falling body strikes to ground in different manner according to weight prevailed for centuries but modern scientist established by famous Lisa Tower experiment that falling

body mass or weight does not have any role but everything falls with equal uniformity. A rubber ball behaves in different manner than iron or marble balls because of weight of item as well nature of its surface of elastic or non elastic. That famous experiment changed the thought of old school and added new dimension in their personality. Old school was focusing on survival so their observations were concentrating on mostly on falling and it was translated into such actions which help in surviving and not to think beyond .They found that it was natural in female gender for experiencing of carrying growing child that gains weight so their holding in various ways. Pregnancy carries the child weight in uterus and failing invite miscarriage. Newly born child needs special care and hold in both hands but as weight increases it shifted to side of the hip bone to back and shoulder.

Primitive people were mostly hunters and used the concept of weight in digging pit covering with light platform that could not bear the weight of animals and trapped in the pit. Some people understood certain fruits were good for body and plucked them before ripening they climbed by selecting those branches that could bear their body weight. To protect from attack of wild animals they were placing heavy stone at the entrance of the cave that could not displaced by animal's physical strength? Later this concept led to the design of doors and windows with hinges for easy movements of weight. They were living in herds and found person with heavy weight were slow in actions and venerable to trouble for survival other side lean person was active so chances of high survival. I have noticed that fat woman are liked by children because she cannot match the agility of child but she is mostly controlling by her sweet voice or offering items of their choice to get thing done of what she wanted without hitting or

using bad words where other side lean woman quickly hold the child who refused to obey and punishes that is the reason they afraid with thin woman.

How come idea of twisting the cotton fibre struck that it would give more strength and could carry more weight. That concept helped in designing various ropes for carrying different weights. Later it turned to steel wire and ropes and concept of pulley with chain for lifting heavy weight items. Sometimes they experienced nut bolts in ceiling fans is good design for holding weight but rotation of fan may invite falls by loosing its hold of nuts they designed hole with pin for not allowing its bolt to lose its hold. Concept of weight has given us thrashing, compressing, filtering crushing grinding etc.

Kitchen utensils were design for holding different weights like serving spoon is different to ordinary spoon or fork. Containers were designed for accommodating different weights. Journey of pockets to bags to gunny bags is nothing but on carrying weight. Use of manual power with design of wheel had revolutionized the means of carrying weight by external means and no more dependent of power of human body parts helped in designing cart .As humans learnt the art of domestication of animals instead of using manual power now using animal strength for carrying heavy weight loads. Design of automobiles further added new dimension in transporting heavy weight with the strength of engine power.

Earlier books were heavy and placed on folding stands made of wood for reading but demand for reading book during journey that should be easily carried forced for designing design light weight pocket size book .I am amazed to see the design of scales for measuring weight where pan has holes on triangular place held by threads attached to horizontal rod where a string at the

centre for holding as well for lifting .This scale was based on gravitational force acts equal on both pan and volume concept was ignored. In liquid volume measurement has standardized the weight and it is still prevailing in our time where a kilogram is equal to some part of the liter. Weight of the gases is also measured in kilograms in compressed state where density is equaled to mass divided by volume. Beauty of the scale is it can design with local available material with little common sense and interface is best in this design. It helps in streamlining the social fabric and eliminates doubts as well any possible disputes at the time of exchange. As technology improved weighing machines were designed with basic rinciple of spring compression after load applied . Another simplest design of various size of handle for lifting and holding the containers that has weight and best use at the time of lifting the heated container to avoid the burn. It is the weights that decide the strength of the material, thickness or insulation of the handle. Without handle in kitchenware we use piece of clothes to hold from the rim that act as handle but it is not safe mode for transporting weight.

Columns and beams for bearing weight of the slabs and in ancient times the roof was erected on number of bamboos placed vertically for bearing weights. Ramp slopes are decided by the weight to lift a wheelchair bound person who has low strength and to push forward by applying force on rim of the wheel.

In initial days of cinematography was confined to studios because of heavy weight of camera it was mounted on trolley for movements but introduction of light weight camera has changed the techniques of film making and outdoor real places shooting was possible. Light weight sometime changed the face of the technology and reason is visible in mobile phone where initial

instruments were heavy in weight and as technologies improved it turned to light weight.

I admire the intelligence of traditional people who are earning their livelihood by selling ice candy by grating of holding ice slab and placing over inverted carpenter wooden chisel tools for serving by placing in cups after adding color sugar syrup. How did they realize eating shovel ice that will turn to light weight will be enjoyable? Even in playground slide is designed in such a way a smallest weight of child could slip down. Another is seesaw where a wooden platform is fixed with pivotal at centre and allows the movement up and down of different person to sit at the end of plank. Body builders or weight lifters use iron disc of different weights dumbbells for lifting. A rope is hanging from ceiling and person does the exercise by using hands for holding and lifting body weight upward.

Concept of light weight added new dimension in our life style. I remembered that in early days of rail journey we were carrying bed in hold all for carrying weight in organized way and suitcase were metallic and difficult to carry because of heavy weight. A new job surfaced and potters were carrying the weight on their head or bags were hanging on their shoulder. As technology improved speed of train reduces the journey time that eliminates the hold all as well plastic suitcases with trolley changed the face of the journey and people no more hiring the services of potter.

I am thankful to *Asst.Prof. Antika Sawadsri (PhD) Dean, Faculty of Architecture, KMITL, Thailand* for accepting our invitation and leave no stone unturned to make it truly international publication. In many occasions I changed my flight from Bangkok but never have opportunity to visit Thailand. After reading these articles I

wish to visit Thailand and do not know when my prayer will be heard.

Enjoy Reading

With regards

Dr. Sunil Bhatia

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Forthcoming Issues

June 2018 Vol-13 No-6 (150th milestone issue)

Prof Ricardo Gomes will be the Guest Editor for our 150th special issue. Professor Ricardo Gomes has been a faculty member in the School of Design (formerly the Design and Industry (DAI) Department) at San Francisco State University for nearly 25 years. He was the Chair of the DAI Department from 2002-2012. Prof.



Gomes coordinates the Design Center for Global Needs and the Shapira Design Archive Project in the School of Design (DES). This non-profit international research and development center is dedicated to promoting responsive design solutions to local, regional and global issues such as: inclusive/universal design, health care, the aging, community development, social innovation and sustainability of the built environment.

Prof. Gomes is on the Board of Directors of the Institute for Human Centered Design in Boston. He is also a member of the Industrial Designers Society of America; and Epsilon Pi Tau International Honor Society for Technology.

Prof. Gomes received his MFA in Industrial Design for Low-Income Economies from the University of California, Los Angeles (Design of a Container System for Mobile Health Care Delivery in East Africa).

July 2018 Vol-13 No-7

Professor Maria Luisa Rossi, Chair of MFA Integrated Design Program at CCS, has agreed to be the guest editor for the issue. Students in her program as well as other programs at CCS have developed a number of socially responsible design projects.



She is the Chair and Professor of MFA Integrated Design at the College for Creative Studies in Detroit where she brings an entrepreneurial culture, globally-focused and cultural empathetic approaches to the growing of the next generation of designers. Her works focus on the seamless capacity to deal with tangible and intangible aspects of user experiences, preparing “facilitators” capable to address global-glocal grand challenges. Strongly centered on the design process, the program prepare students for the practice of designing omni-channel journeys [products-strategy-services] focused to the quality of the users experience with a special eye to socially relevant solutions. As an undergraduate in Florence, Italy, her wearable computer project work was featured in the prestigious Domus magazine, earning her a scholarship to attend the premiere master’s program in industrial design at the Domus Academy in Milan where she got her Master of Industrial Design.

August 2018 Vol-13 No-8

Sameera Chukkapalli (1992) is currently a fellow at the FabCity Research Laboratory, Barcelona, Spain. She founded needlab, a non-profit organization to create a model of optimized practice to deliver maximum impact with the objective of making a difference to the communities. She was the project director and tutor for the Needlab_Kuwait Matters, India Matters, Vietnam Matters. She is working as Space Designer with CARPE LA Augmented Reality project in Los Angeles, USA, funded by the LA2050 program, to eliminate gray zones in public parks and to make them user-friendly. She has represented needlab and lectured in five countries on three continents, actively initiating a conversation about Human Centered design with Policymakers.



Sameera graduated, with MAArch in Digital Matter and Construction, and completed Open Thesis Fabrication, on Large-Scale Natural additive construction using robots, from IAAC, Barcelona, Spain. Obtained B.Arch degree from BMSCE, Bengaluru, India, and the University of Berkeley, USA; Worked with External Reference Architects in Spain; Worked with VTN Architects in Vietnam, on the Tokyo pavilion "Bamboo Forest" for Japan and "S House"(low-cost housing prototype) for Vietnam.

September 2018 Vol-13 No-9

Dr. Bijaya K. Shrestha received Doctoral in Urban Engineering from the University of Tokyo, Japan (1995-'98) and Master in Urban Design from the University of Hong Kong, Hong Kong (1993-'95). Having professional experiences for almost three decades he had served to numerous organisations – Government of Nepal, educational institutions, private sector and United



Nations Centre for Regional Development (UNCRD): Disaster Management Hyogo Office, Kobe, Japan, besides consulting works for ADB, UNICEF and UN-Habitat. His contribution in establishing Post Graduate Department of Urban Design and Conservation at Khwopa Engineering College in 2007 is noteworthy, where he served as Head of Department for two years. At present, he is engaged in ADB supported projects and research works in different Architectural Schools, besides editing international journals and conference papers. He is the recipient of numerous gold medals and prizes for his excellent academic performance. He was decorated by 'Calcutta Convention National Award 2006' by Indian Society for Technical Education for his best paper at the 35th ISTE Annual convention and National Seminar on Disaster – Prediction, Prevention and Management. He has already contributed more than ten dozen of papers, published in various forms: book chapter, international journals, conference proceedings, local magazines and journals including in local newspapers. He is regular writer for

October 2018 Vol-13 No-10

Dr. Sugandh Malhotra has over sixteen years professional experience in industrial design and automotive styling industry. He has worked on design projects for marquee brands in the industry that include Honda R&D, Hero Global Design,



Hi-Tech Robotic Systemz Ltd., SETI Labs Berkley, Aprilia Motors Italy, Bombardier Canada and most of the leading automotive and consumer brands of India. He has been instrumental in design of over 18 techno-commercially successful launched products at a pan India level. He has won many International and National level design awards. Dr. Malhotra takes keen interest in teaching design and has been mentoring students from many leading institutions such as IIT Delhi, IIT Roorkee, SPA Delhi, Lady Irving College, IILM, Pearl Academy among others. Currently, he is working as an Assistant Professor and the Coordinator of MVD program in IDC School of Design at IIT Bombay. His research interest areas include design research methods, future design possibilities, trend research and design forecasting and intelligent mobility systems.

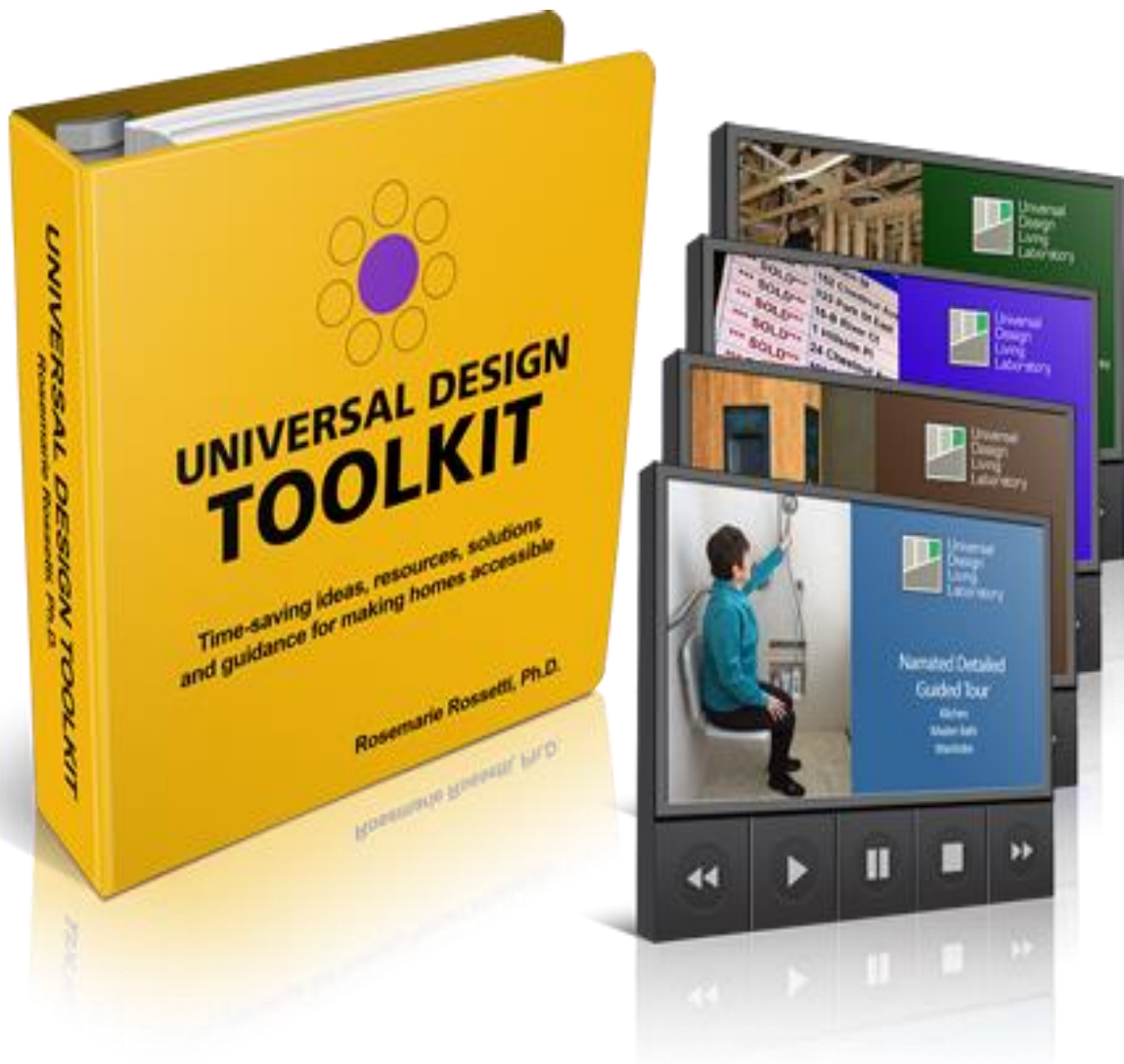
December 2018 Vol-13 No-12

Robert Nichols ,an Owner of Nichols Design Associates, Inc., Washington, DC has been extensive experience in Architectural Design and Universal Design for over 35 years. His expertise within this area of specialty includes building surveys and ADA



Accessibility checklist for the public and private clients. He is President and Chairman of the Board of World Deaf Architecture, Inc. (WDA), a new knowledge group of American Institute of Architects (AIA), since a non-profit organization was established in 2016. Received B.Arch.&M.Arch. degrees in Urban Design under the leadership of Prof. Colin Rowe from Cornell University will be our Guest Editor .

New Books



The Ultimate Resource for Aging in Place With Dignity and Grace!

Are you looking for housing options that are safer and more accommodating for independently aging in place? Do you want to enjoy comfort, accessibility, safety and peace of mind – despite your disabilities, limitations and health challenges? The help you need is available in the Universal Design Toolkit: Time-saving

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This is the ultimate resource for individuals and professionals who want to save time, money and energy when designing, building, remodeling or downsizing a home. The Universal Design Toolkit will help you take the steps to design homes for your clients or yourself while eliminating the costly trial and error challenges you'd inevitably encounter if faced with this learning curve on your own.

Rosemarie Rossetti, Ph.D., teamed with her husband Mark Leder in creating this unique Toolkit. They bring ten years of research, design and building expertise by serving as the general contractors for their home, the Universal Design Living Laboratory– which is the highest rated universal design home in North America.

Within the Toolkit's 200 richly illustrated pages, you'll find:

- **Insights that distinguish *essential* products, services and resources from the *unnecessary*.**
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If you want useful, dependable advice and easy to implement ideas from respected experts who know the ropes, you'll love Rossetti and Leder's perspective. As a speaker, author and consultant who uses a wheelchair, Rossetti has helped hundreds of people design their ideal homes. Now her comprehensive Toolkit is available to help and support you!

Get the Universal Design Toolkit now to start your project!

“Fresh, comprehensive, and engaging, *Universal Design in Higher Education* is expertly written, thoughtfully crafted, and a ‘must-add’ to your resource collection.”

—STEPHAN J. SMITH, EXECUTIVE DIRECTOR, ASSOCIATION ON HIGHER EDUCATION AND DISABILITY

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UNIVERSAL DESIGN IN HIGHER EDUCATION

From Principles to Practice, Second Edition

EDITED BY SHERYL E. BURGSTAHLER • FOREWORD BY MICHAEL K. YOUNG

This second edition of the classic *Universal Design in Higher Education* is a comprehensive, up-to-the-minute guide for creating fully accessible college and university programs. The second edition has been thoroughly revised and expanded, and it addresses major recent changes in universities and colleges, the law, and technology.

As larger numbers of people with disabilities attend postsecondary educational institutions, there have been increased efforts to make the full array of classes, services, and programs accessible to all students. This revised edition provides both a full survey of those measures and practical guidance for schools as they work to turn the goal of universal accessibility into a reality. As such, it makes an indispensable contribution to the growing body of literature on special education and universal design. This book will be of particular value to university and college administrators, and to special education researchers, teachers, and activists.

SHERYL E. BURGSTAHLER is an affiliate professor in the College of Education at the University of Washington in Seattle, and founder and director of the university's Disabilities, Opportunities, Internetworking, and Technology (DO-IT) and Access Technology Centers.

“Sheryl Burgstahler has assembled a great set of chapters and authors on universal design in higher education. It’s a must-have book for all universities, as it covers universal design of instruction, physical spaces, student services, technology, and provides examples of best practices.”

—JONATHAN LAZAR, PROFESSOR OF COMPUTER AND INFORMATION SCIENCES, TOWSON UNIVERSITY, AND CO-AUTHOR OF *ENSURING DIGITAL ACCESSIBILITY THROUGH PROCESS AND POLICY*

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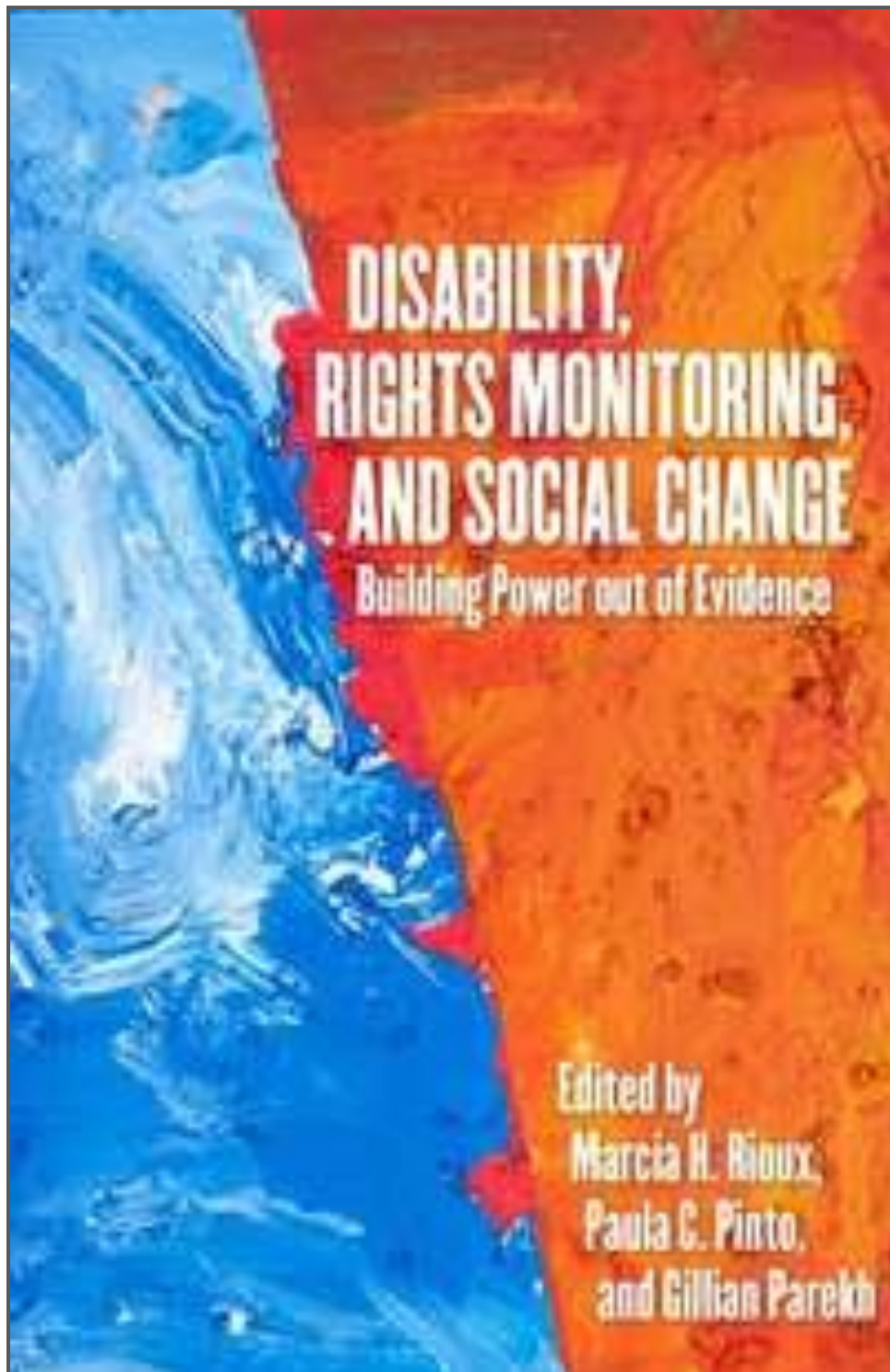
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Product Description

In this book, Elvio Bonollo takes us on a 'learning journey' about design including a scholarly explanation of the characteristics and power of the design process. It provides valuable insights into the attitudes, knowledge and skills that underpin the design discipline at an introductory level of expertise, and has been developed to meet the needs of aspiring designers in many areas including industrial design, design and technology, art and design and architecture. Elvio uses an operational model of the design process - along with related educational strategies, learning outcomes and an ordered set of design briefs - to develop a systematic, problem-based method for learning design from a first principles viewpoint. The beauty of this approach is that it brings structured learning to aspiring designers whilst being mindful of diverse cultures and backgrounds. Each part of this book encourages self-expression, self-confidence and exploration: it has been carefully designed to take the reader on a highly motivating journey of design thinking and creativity, supported by excellent sample solutions to design problems, lucid discussions and extensive references. These solutions, developed by design students, serve as novel examples of how to solve real problems through innovative design without restraining creative freedom and individual personality. The design learning method and strategies in this book will greatly assist design and technology teachers, students of design, aspiring designers and any individual with an interest in professional design practice.

I cannot recommend this book highly enough, it was a complete lifesaver throughout my undergraduate studies and honours degree and now continues to serve me well as I move into industry practice. The content is easy to understand and follow, providing a practical guide to understanding design principles and every aspect of the design process. It includes great project examples and reflects the wealth of knowledge and experience possessed by this accomplished educator. I have purchased multiple copies of this book for peers and would suggest any student who is studying a design discipline to pick up their own copy as this has quickly become the most useful book in my design collection.

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★★★★★ A 'Must Have'.

By Amazon Customer on 7 April 2016

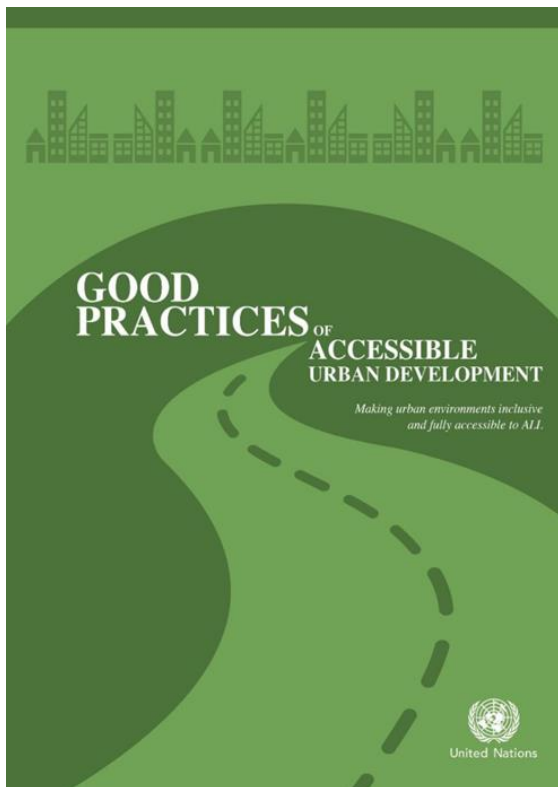
As a Design Education professional of many years standing, I endorse this book without reservation. It is comprehensive, lucid and above all, useful in a very accessible level at the coalface. Professor Bonolo has an enormous cache of experience as an engineer, designer and design educator and his experience is well demonstrated in this book. A 'must have' for anyone in the business of educating or being educated in the product design arena.

TAPPING INTO
HIDDEN
HUMAN CAPITAL

How Leading Global Companies Improve their
Bottom Line by Employing Persons with Disabilities



DEBRA RUH



In light of the forthcoming United Nations Conference on Housing and Sustainable Urban Development (HABITAT III) and the imminent launch of the New Urban Agenda, DESA in collaboration with the Essl Foundation (Zero Project) and others have prepared a new publication entitled: “Good practices of accessible urban development”.

The publication provides case studies of innovative practices and policies in housing and built environments, as well as transportation, public spaces and public services, including information and communication technology (ICT) based services.

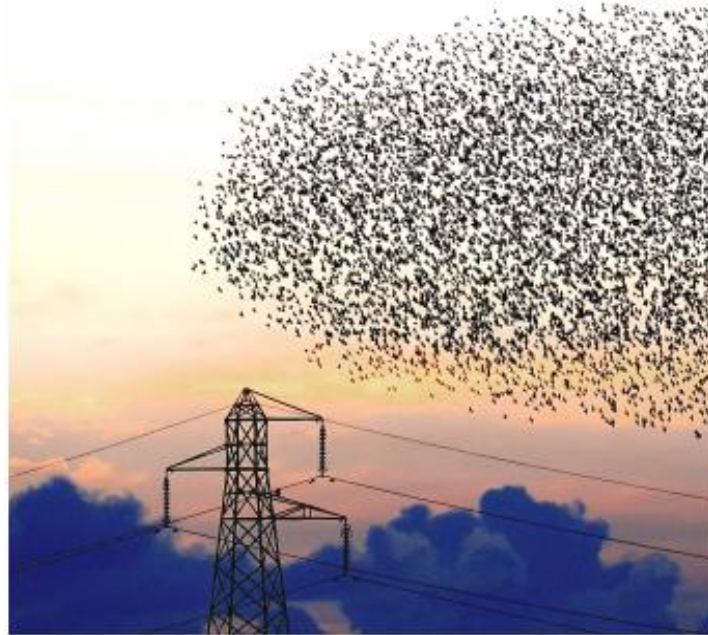
The publication concludes with strategies and innovations for promoting accessible urban development.

The advance unedited text is available at:http://www.un.org/disabilities/documents/desa/good_practices_urban_dev.pdf

FROM MODULARITY TO EMERGENCE

A PRIMER ON THE DESIGN AND SCIENCE OF COMPLEX SYSTEMS

Chih-Chun Chen and Nathan Crilly



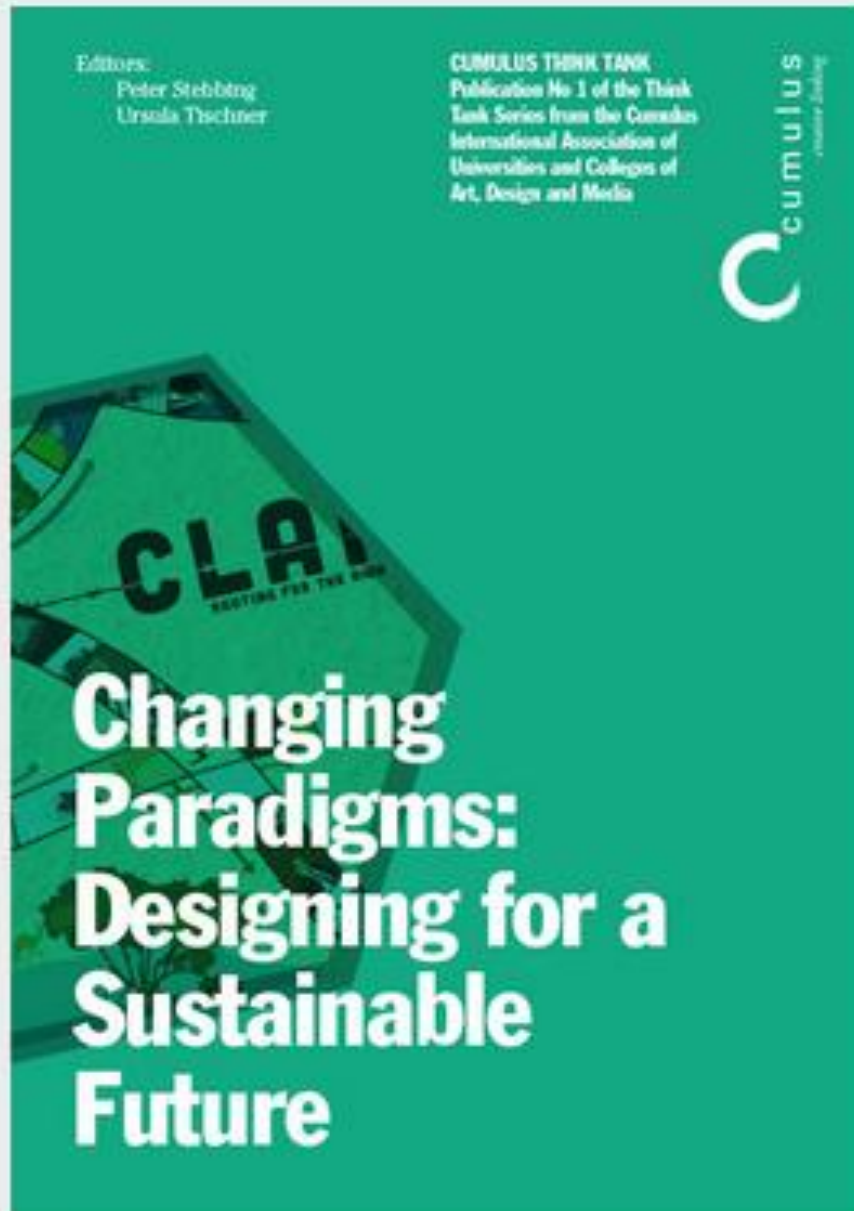
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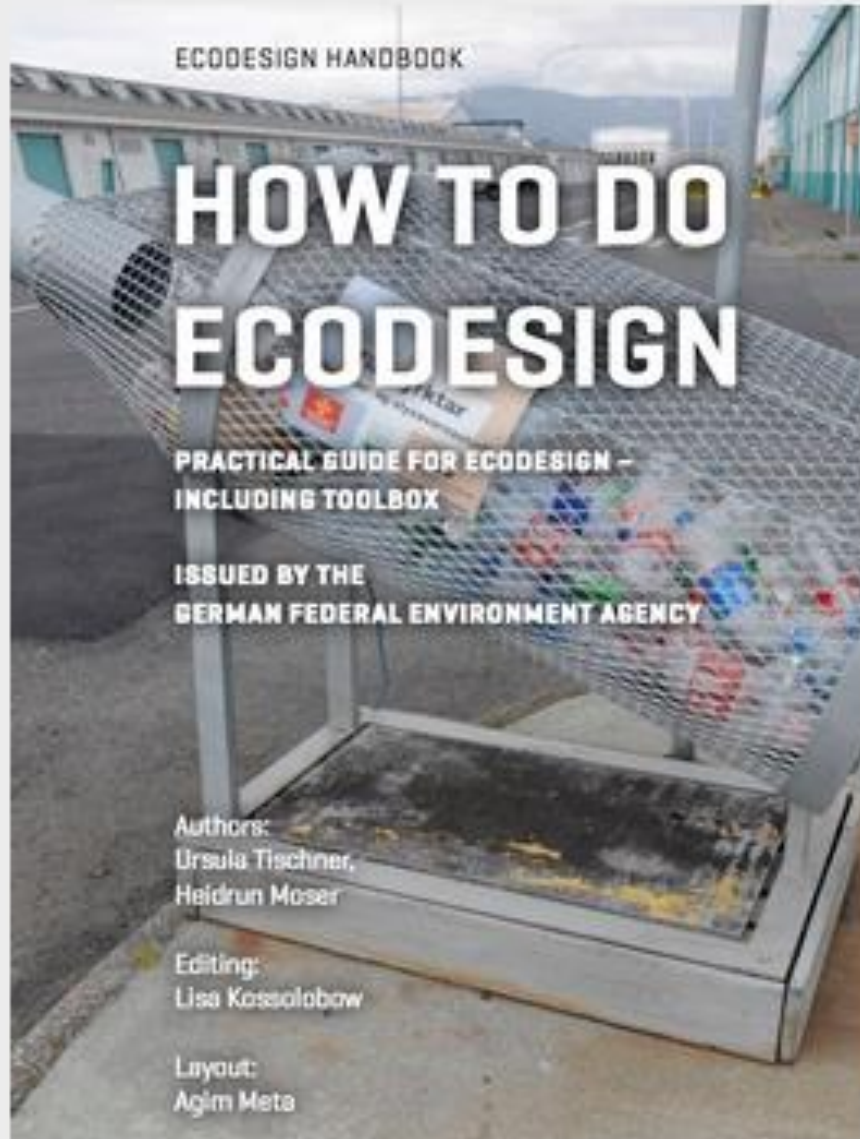
Dr Chih-Chun Chen and Dr Nathan Crilly of the Cambridge University Engineering Design Centre Design Practice Group have released a free, downloadable book, *‘A Primer on the Design and Science of Complex Systems’*. This project is funded by the UK Engineering and Physical Sciences Research Council (EP/K008196/1). The book is available at URL:

<http://complexityprimer.eng.cam.ac.uk>

Changing Paradigms: Designing for a Sustainable Future

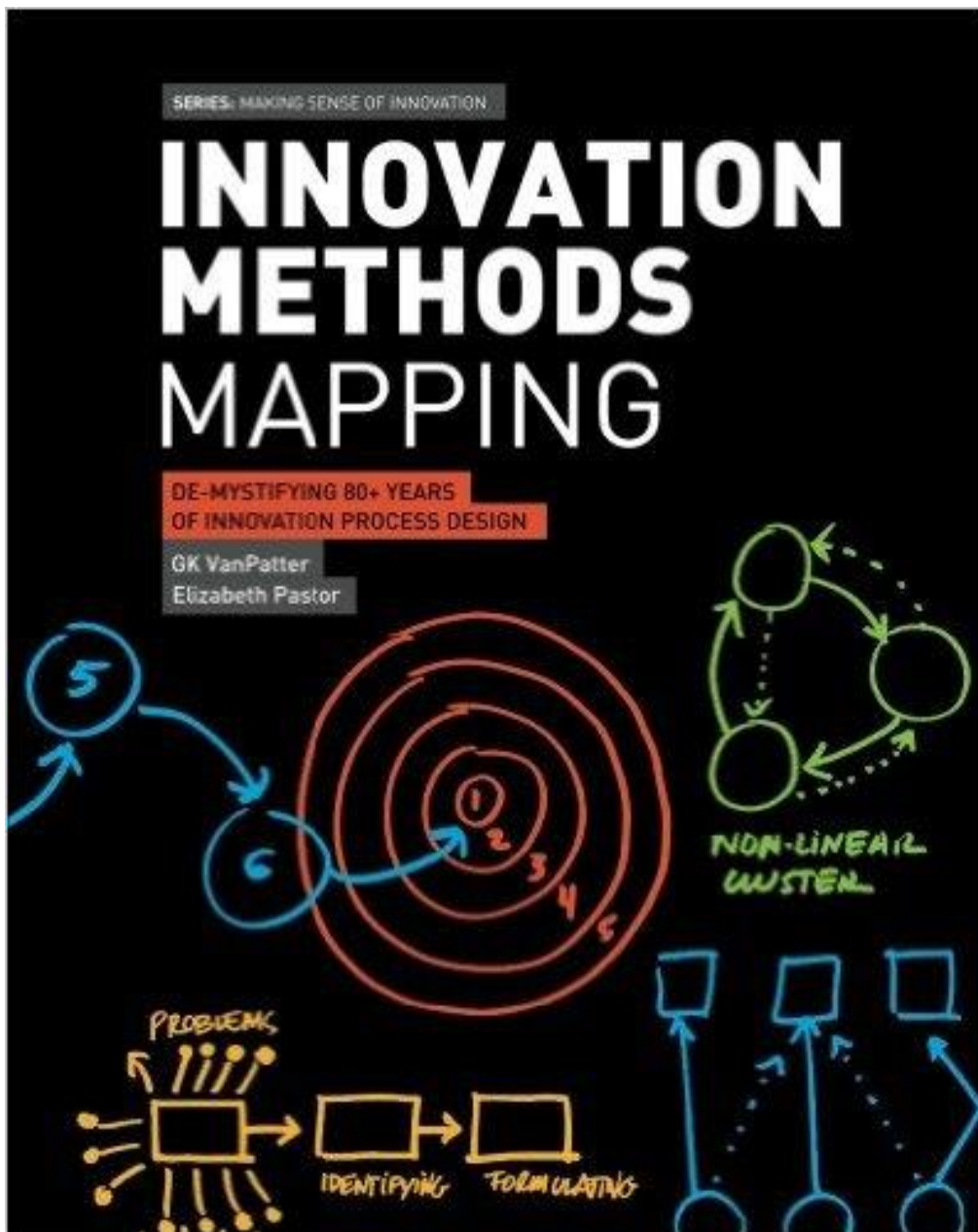


New iBook / ebook: HOW TO DO ECODESIGN



Practical Guide for Ecodesign – Including a
Toolbox

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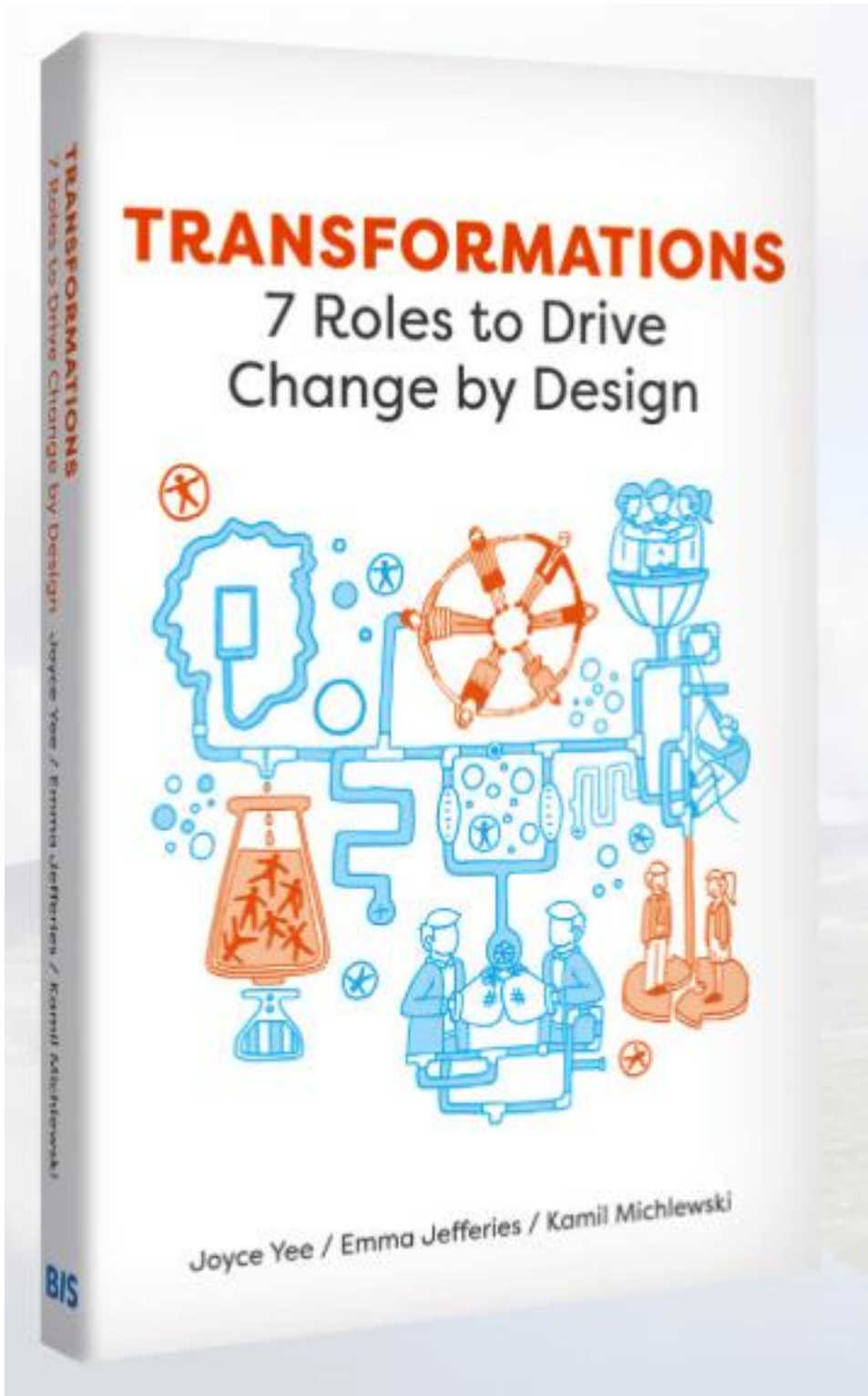


Humantific's new book: Innovation Methods Mapping has just been published and is now available on Amazon.

https://www.amazon.com/dp/1540788849/ref=sr_1_1?ie=UTF8&qid=1482329576&sr=8-1&keywords=Humantific

You can see the preview here:

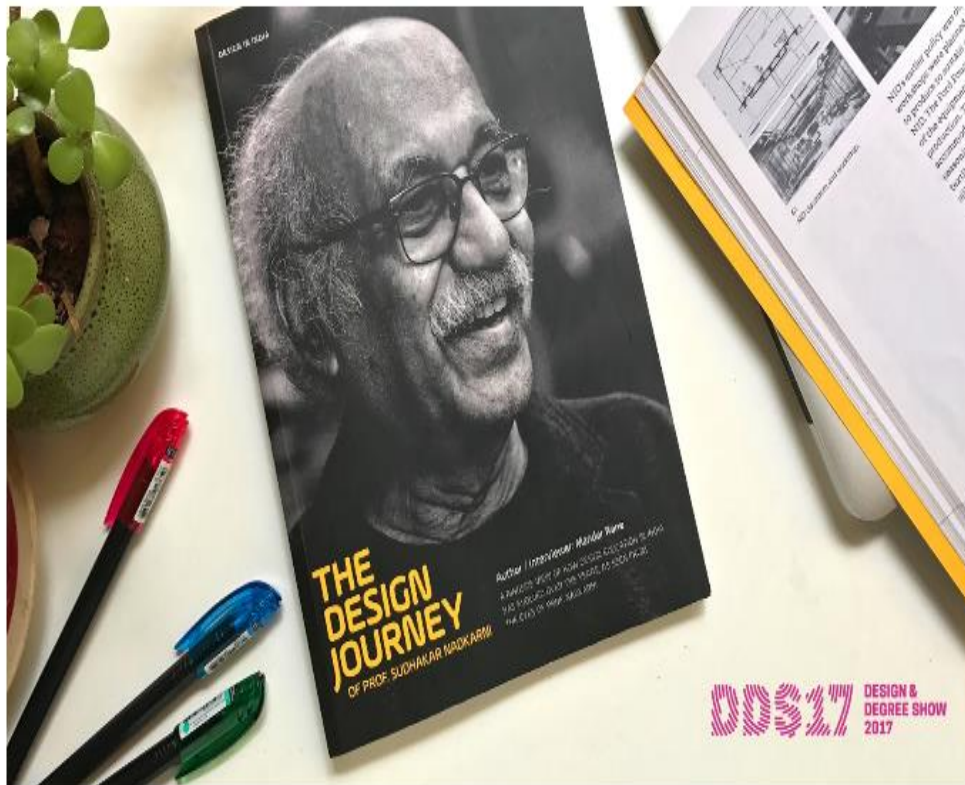
https://issuu.com/humantific/docs/innovation_methods_mapping_book_pre



Pre-book form

Thank you for your interest in the book, 'The Design Journey of Prof. Sudhakar Nadkarni'. Few limited copies will be available for purchase on the day of IDC Alumni Meet, on June 11th, Sunday, 5:30 to 6:30 pm. Rest of the book orders will start shipping June 25th, 2017 onward.

* Required



How many copies of the book do you wish to buy? *

Amar Arnason and Sigurjón Baldur Hafsteinsson

DEATH AND GOVERNMENTALITY

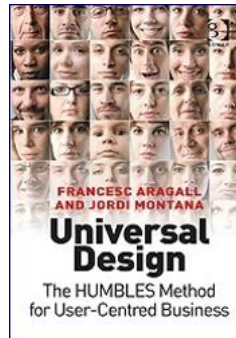
Neo-liberalism, grief and the nation form



Universal Design: The HUMBLE Method for User-Centred Business

89 *May 2018 Vol-13 No-5*

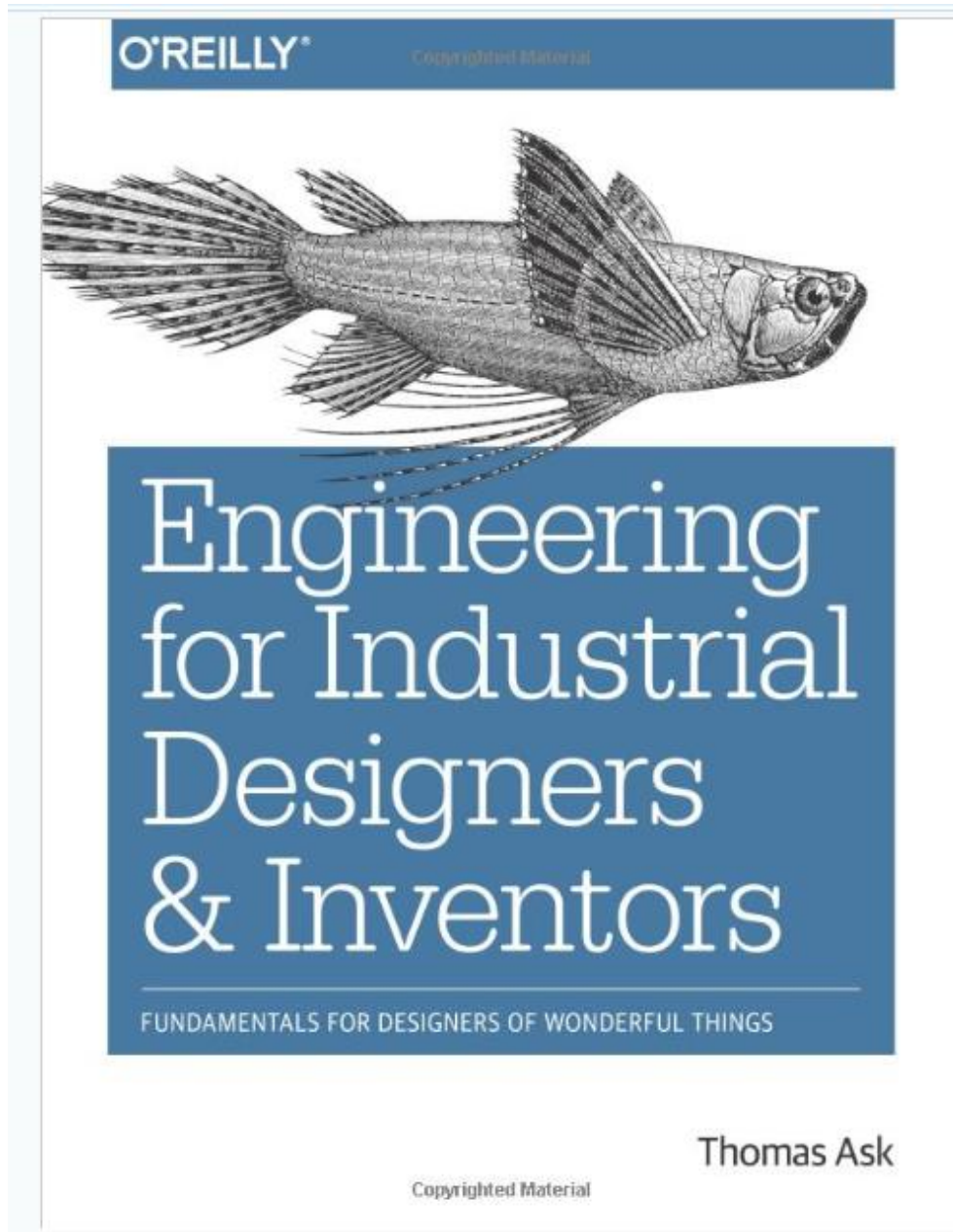
Design For All Institute of India



“Universal Design: The HUMBLES Method for User-Centred Business”, written by Francesc Aragall and Jordi Montaña and published by Gower, provides an innovative method to support businesses wishing to increase the number of satisfied users and clients and enhance their reputation by adapting their products and services to the diversity of their actual and potential customers, taking into account their needs, wishes and expectations.

The HUMBLES method (© Aragall) consists of a progressive, seven-phase approach for implementing Design for All within a business. By incorporating the user’s point of view, it enables companies to evaluate their business strategies in order to improve and provide an improved, more customer-oriented experience, and thereby gain a competitive advantage in the marketplace. As well as a comprehensive guide to the method, the book provides case studies of multinational business which have successfully incorporated Design for All into their working practices.

According to Sandro Rossell, President of FC Barcelona, who in company with other leading business professionals endorsed the publication, it is “required reading for those who wish to understand how universal design is the only way to connect a brand to the widest possible public, increasing client loyalty and enhancing company prestige”. To purchase the book, visit either the [Design for All Foundation website](#)



I have a new book that presents fundamental engineering concepts to industrial designers that might be of interest to you. This is the link:

https://www.amazon.com/Engineering-Industrial-Designers-Inventors-Fundamentals/dp/1491932619/ref=sr_1_1?ie=UTF8&qid=1506958137&sr=8-

1&keywords=engineering+for+industrial+designers+and+inventors



Appeals

1.

ACCEPT. EMBRACE. CELEBRATE.
ACCESS FOR ALL

The 8th NCPEDP Mphasis Universal Design Awards





News

1.

Stakeholders to Make Delhi a Model Accessible City



The Secretary, Department of Empowerment of Persons with Disabilities (DEPwD), Smt. Shakuntala D. Gamlin chairing the '1st Sensitization Meeting of Stakeholders to make Delhi a Model Accessible City', in New Delhi on May 07, 2018.

The Department of Empowerment of Persons with Disabilities (DEPwD), Ministry of Social Justice and Empowerment is having the commitment to uphold the rights of Persons with Disabilities (PwDs) and to ensure the accessible and inclusive assets are created in the country. Chairing the '1st Sensitization Meeting of

Stakeholders to make Delhi a Model Accessible City' On May 7th, 2018, Smt. Shakuntala D. Gamlin, Secretary, DEPwD said that the Department has taken up the initiative to coordinate the meeting of all key stakeholders, sensitize them about the legal mandates and would hold supervisory role in this entire journey.

Secretary, DEPwD said that Delhi being the capital city of the country is proposed to be selected for this drive. The rationale for selecting Delhi is that it is assuming increasing eminence among the great cities of the world. Growing at an unprecedented pace, the city needs to be able to integrate its elegant past as well as the modern developments into an organic whole, which demands a purposeful transformation of the socio-economic, natural and built environment. Due to daily influx of visitors and representatives from different parts of the country, a capital city which is also a prime example of "Barrier free environment" and "Inclusivity", would enhance visibility of the campaign and would also serve as a replicable model for others to follow. Apart from critical issues such as land, physical infrastructure, transport, ecology and environment, housing, socio-cultural and other institutional facilities, the cornerstone for making Delhi an Accessible city is the planning process itself and related aspects of governance and management. This needs a co-ordinated and integrated approach amongst several stakeholders and participatory planning involved with providing services such as Health, Education, Banking, Recreation, Sports etc. The process will commence with: Identification of important built-spaces, public transport infrastructure, services, recreational areas, tourism sites etc. in Delhi; Categorization of the infrastructure and spaces; and Selection of the key executing bodies.

It is a well-established fact that, disability is caused by the way society is organised, and not the person's limitations and impairments. The physical, social, structural and attitudinal barriers prevent People with Disabilities (PwDs) from participating equally in the socio-cultural and economic activities. A barrier-free environment facilitates equal participation in all the activities and promotes an independent and dignified way of life. India ratified United Nations Conventions on Rights of Persons with Disabilities (UNCRPD) 2007. This convention required that India make a number of changes to its laws, policies, regulations, notifications, programs, and schemes. As a part of the process of bringing the legal instruments of India into compliance with the UNCRPD, the process of enacting a new legislation in place of the Persons with Disabilities Act, 1995 (PWD Act, 1995) began in 2010. Meanwhile, Accessible India Campaign (AIC) was launched on December 3, 2015 and subsequently the Rights of Persons with Disabilities (RPwD) Act, 2016 was enacted replacing the PwD Act 1995. The AIC has the vision to build an inclusive society in which equal opportunities are provided for the growth and development of PwDs so that they can lead productive, safe and dignified lives. As a nation-wide flagship campaign for creating universal accessibility for PwDs in Built Environment, Transport system, and Information & Communication Technology (ICT) eco-system, objectives were set up to enhance the proportion of accessible government buildings, accessible public transport and accessible websites.

Further, RPwD Act 2016 mandates that all the Establishments/institutions should ensure barrier free spaces and services for rightful inclusion of PwDs in the society. The Act lays stress on non-discrimination, full and effective participation and

inclusion in society, respect for difference and acceptance of disabilities as part of human diversity and humanity, equality of opportunity, accessibility and equality. Section 40- 46 of RPwD Act 2016, lays down clear mandates, timelines and punitive actions to foresee the vision of creation of accessible environment and services for all.

Key Stakeholders:

1. Delhi Government and related agencies

- 1. Department of Social Welfare, Delhi**
- 2. Directorate of Health (Hospitals, Health Centres)**
- 3. Directorate of Education (Schools)**
- 4. Directorate of Higher Education (Higher education Instt.)**
- 5. Art, Culture and Language Department (Theatres, drama schools etc.)**
- 6. Delhi Transport Corporation (Bus fleets and Depots)**
- 7. Municipal Corporation of Delhi**
- 8. New Delhi Municipal Council**
- 9. Delhi Urban Shelter Improvement Board**
- 10. Delhi Metro Rail Corporation**
- 11. PWD, Delhi**
- 12. Home Department (Police Stations/ Judiciary)**
- 13. Tourism Department**
- 14. Delhi Transport Infrastructure Development Corporation Limited (Bus stops, Interstate terminals etc)**

15. Urban Development Department

16. Delhi Police (police stations)

2. Central Government

1. Reserve Bank of India

2. Ministry of Finance (Banks/ATMs)

3. Ministry of Housing and Urban Affairs

4. Ministry of Home Affairs (Police stations)

5. Ministry of Culture (ASI)

6. Ministry of Tourism

7. Ministry of Communications (India Post)

8. Ministry of Health and Family Welfare

9. Ministry of Road Transport and Highways

10. Ministry of Human Resource Development

11. Delhi Cantonment

12. Delhi Development Authority

3. Others

1. Chief Commissioner for Persons with Disabilities, New Delhi

2. State Commissioner for Persons with Disabilities, Delhi

(Source: Press Information Bureau of India)

2.

EU Parliament Study Report - Transport and Tourism for Persons with Disabilities and Persons with Reduced Mobility

This extensive study has undertaken literature reviews, user and experts' questionnaires, interviews and workshop surveys, analysis of EU legislation, SWOT and Multi-Criteria Analysis, identification of best practices and analyses of case studies.

This has led to a mapping of accessibility across the EU Member States (identifying relevant state clusters) for three different sectors: local transport, (which includes mainly public transport services such as buses, trams, metro, and short-distance rail transport, but also the use of personal cars and personal mobility aids); long-distance transport, (including road, rail, air, and maritime transport) and tourism.

The aim of this study is to provide Members of the European Parliament's Committee on Transport and Tourism (TRAN) with clear recommendations on what could be done, in particular at the EU policy level, to support accessibility in the transport and tourism sectors.

Specific policies, research priorities and recommendations are made per state clusters and for the EU, which can enhance accessibility in each of the three sectors.

The project was carried out by:

Contractor: [Centre for Research and Technology Hellas / Hellenic Institute of Transport - CERTH](#), (Greece)

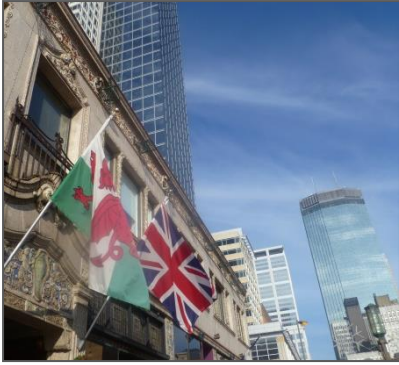
Sub-contractors: [European Disability Forum \(EDF\)](#) and [European Network for Accessible Tourism \(ENAT\)](#).

Downloads

Download the Main Report in PDF format from the right-hand panel in PDF format. (6.90 MB)

The Annexes, containing over 100 case study examples, are available in a single PDF document from the [EU Parliament website](#) (10.8 MB).

(Source ENAT)



Programme and Events

Access Israel's 6th Annual
International Conference on
**Innovation & The Future
of Accessibility**
29 April 2018 - Israel
Avenue Conference Center - Airport City

The DesignEuropa Awards celebrate excellence in design and design management among [Registered Community Design \(RCD\)](#) holders, whether they are individual right holders, small businesses or large enterprises. The Awards seek to recognise companies and designers that have brought outstanding design to the market with the support and protection of the RCD.

DESIGNEUROPA
awards 2018

**APPLY
UNTIL
15 MAY!**

Submit your
application or
nomination
before 15 May
2018.

Organised by



Voices of Good Design - What is Good Design?

Australia's only international design award program is open for entries, across 10 design disciplines and over 25 sub-categories.



Join us for the **2018 EDRA49 Annual Conference** in the **Oklahoma City, Oklahoma!** Walk along the streets of Oklahoma City, home to an attractive variety of historic buildings. Eye-catching religious buildings, and magnificent structures of great architectural and historic significance. **Stay tuned for registration to open in late Fall.** Check out what OKC has to offer, [click here](#).



The weather in Toronto has warmed up and the IFA is preparing with anticipation to host over 1200 delegates from more than 75 countries in August 2018.



Universal Design & Higher Education in Transformation Congress

30th October – 2nd November 2018, Dublin Castle

Transforming our World through Diversity, Design and Education



On 27 October 2017, the European Commission presented the final Work Programme for Horizon 2020, covering the budgetary years 2018, 2019 and 2020 and representing an investment of around €30 billion.



Human-Work Interaction Design (HWID'18) - Designing Engaging Automation

**5th IFIP WG 13.6 Working Conference
August 20-21, 2018
Aalto University, Espoo, Finland**

In continuation with the series of the Human Work Interaction Design working conferences, the fifth edition will take place in Espoo, Finland, on the 20th and 21st of August, 2018. The venue is the brand new building of School of Arts, Design and Architecture in Aalto University, Otaniemi campus.

Important dates:

**Full paper submission deadline: April 2nd
Poster submission deadline: April 30th
Acceptance notifications: May 11th
Early bird registration deadline: May 31st
Conference: August 20-21, 2018**

Theme, Scope and Focus:

This year's theme is Designing Engaging Automation. While we do not exclude other aspects of work analysis and designing interactions for work contexts, we encourage authors to share especially their research on human aspects in workplace automation in the 2018 edition of HWID conference.

Interaction design for work engagement has lately started to gather more attention, especially in designing tools for employees. Work engagement takes usability of interactive systems to the next level by providing employees pleasurable and meaningful experiences via the tools used at work. The theme of HWID'18 emphasizes the need for providing these experiences also when parts of the work are automated.

Examples of relevant questions include:

- **Is automation making work less interesting or more engaging?**
- **How to improve work engagement by automation?**
- **How to share work optimally between humans and automation?**
- **How to maintain operator vigilance in highly automated environments?**
- **How to support situation and/or automation awareness?**
- **How to evaluate the impact of automation on work engagement?**

This working conference aims to answer these questions to support professionals, academia, national labs, and industry engaged in human work analysis and interaction design for the workplace. We will discuss the tools, procedures, and professional competences needed for designing for and evaluating engaging automation in workplace contexts.

We invite two types of submissions:


- 1. Full papers (max 15 pages, excluding references) and**
- 2. Poster submissions (max 4 pages, excluding references).**

For both types of submissions, the authors must use the LNCS templates available from Springer. Please submit your work in PDF format to EasyChair.

All accepted papers will be published in the working conference proceedings in the form of an electronic copy with ISBN and made available to the participants. During the review process, the reviewers are asked to evaluate whether the paper is suitable for a HWID's Springer book (Springer-Verlag) that will be made available after the conference. We aim at most accepted full research papers to be included here, but also the possibility to have a very interesting perspective from industry or similar represented.

Conference web site: <https://blogs.aalto.fi/hwid2018>

Global Architecture & Design Awards
Architecture | Interior | Landscape | Urban Design | Product Design



**GLOBAL
ARCHITECTURE
AND DESIGN
AWARDS
2018**

MEDIA PARTNERS
ARCHITECTURE
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OPEN TO ALL
ENTRY FREE FOR RTF MEDIA LAB MEMBERS



**universal
design**
CONFERENCE

4-5 September 2018
Brisbane
Convention and
Exhibition Centre



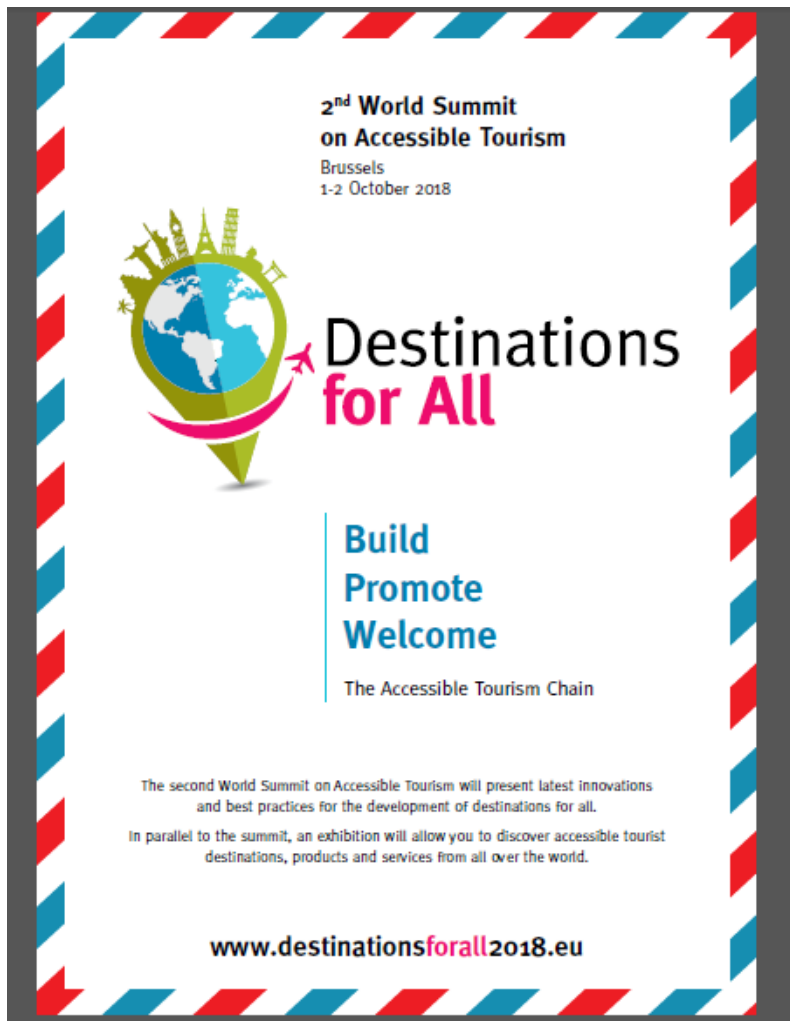
TRANSED
TAIPEI 2018

15th International Conference on Mobility and
Transport for Elderly and Disabled Persons
(TRANSED 2018)

*Mobility for all:
Connecting the World with Accessible Transportation*

November **12** to **15**, 2018
TAIPEI INTERNATIONAL CONVENTION CENTER (TICC)





'Expo CD'

3 Day Workshop:

'Communication Design for IT and Media Professionals'

19th- 21st July 2018 from 9.30am - 5.30 pmat IDC School of Design, IIT Bombay



Introduction:

The course Expo CD is a refresher course on the finer aspects of Communication Design specifically meant for IT and Media Professionals..

The course will inform the participants about the overall aspects of Communication Design for the Digital Media, a deeper understanding of Communication Graphics, Methods for Structuring and Visualisation of Information as well as exposure to creative processes for solving communication problems.

The subjects covered during the workshop include - Typography for Digital Media, Expressive Typography, Typography for the Web, Information Graphics, Information Visualisation, Communication Graphics, Icon Design, Design Process, Design Methodology, Interactive Design, Identity Design, etc..

The course is scheduled to have lecture and discussion sessions in the morning followed by workshops on Communication Design related creative problem solving sessions in the afternoon

Global Architecture & Design Awards

rtf GLOBAL ARCHITECTURE AND DESIGN AWARDS 2018

A Rethinking The Future Initiative

A call for Professionals and Students to submit their work under Mentioned Categories

Registration **Free** for RTF Media Lab Members

MEDIA PARTNERS

AECRI World Architecture Community

Global Architecture & Design Awards is one of the world's most prestigious Awards hosted by Rethinking The Future (RTF). RTF has been hosting Awards since 2012, and many esteemed Studios have been the winner of the Awards like Aecom, HOK, Aedas, Bjarke Ingels Group & Dialog, UNstudio, Perkins Eastman, etc. GADA is open to all the professionals and students across the world and offers more than 40 Categories divided into 'Concept' and 'Built'.

[Participate Now](#)

International Architecture Awards



One of the most famous Architecture Awards across the globe, International Architecture Awards hosted by Architecture Podium brings its winners to the top in the industry. Some of the previous winners include Aedas, TerreformOne, Rockwell Group, Pepe Gascon Arquitectura, Nadaaa etc. International Architecture Awards offer 30+ Categories under three groups' i.e.; Architecture, Interior Design and Product Design.

[Participate Now](#)

The Aga Khan Award for Architecture



The Aga Khan Award for Architecture

The Aga Khan Award for Architecture (AKAA), established by Aga Khan IV in 1977, is awarded every three years to an architectural project that meets the needs and preferences of Islamic societies. The Award seeks to identify and encourage architectural concepts in the fields of community development, area conservation, contemporary design, preservation of the environment and landscape design.

[Participate](#)



Spring Edition - 05/01/2018 - New York, Seoul, Paris & Milan

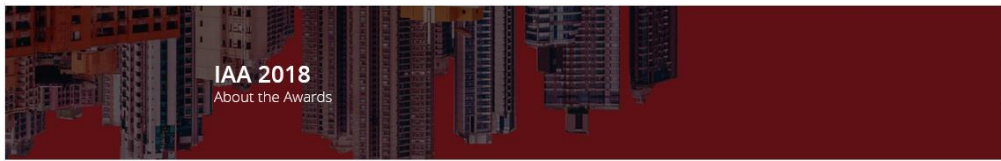
2018 Spark Design Awards Are All Underway

All the various Spark Awards are welcoming entries now. They include 12 design specialties, so there's sure to be a good fit for your work.

An advertisement for the Global Architecture and Design Awards 2018. The background is a dark grey gradient with a large, abstract graphic on the right side composed of overlapping rectangular blocks in shades of orange, red, and yellow. On the left, the text "GLOBAL ARCHITECTURE AND DESIGN AWARDS 2018" is written in large, bold, black capital letters. Above the word "GLOBAL" is a yellow square containing the letters "r&f" in black. Below the main title, there are three logos: "ARCHI BAZAAR" (a stylized 'A' followed by the text), "World Architecture Community" (a large 'W' followed by the text), and a circular logo with a clock face and the text "MEDIA PARTNERS". At the bottom of the advertisement, the text "GLOBAL ARCHITECTURE AND DESIGN AWARDS 2018" is repeated in white capital letters on a dark grey background. A small white downward-pointing arrow is located in the bottom right corner of the advertisement area.

Schedule:

Registration Begins. 15 Mar, 2018



International Architecture Awards 2018

After the huge success of previous International Architecture Awards, Architecture Podium is announcing IAA 2018.

Architecture Podium created one of the largest awards in architecture and design with some of the esteemed studios as winners like [Aedas](#), [TerreformOne](#), [Rockwell Group](#), [Pepe Gascon Arquitectura](#), [Morphogenesis](#), [Dada & Partners](#), [Nadaaa](#), [XTEN Architecture](#), [Mecanoo](#), [ABIBOO Architecture](#) and many more from across the globe making IAA one of the most successful awards.

GQUAL

The GQUAL Campaign, the International Disability Alliance and the International Disability and Development Consortium call upon States Parties to promote gender balance as well as quality and independence among the experts within the elections for the Committee on the Rights of Persons with Disabilities (CRPD Committee).

On June 12th, 2018, during the XI Conference of States Parties (COSP) to the Convention on the Rights of Persons with Disabilities, States Parties will elect 9 experts to the CRPD Committee.



Job Openings

1. Job Opening

Salesforce is looking for UX designers to join their Industries Cloud Product Design team in Hyderabad. Details here -

https://salesforce.wd1.myworkdayjobs.com/en-US/External_Career_Site/job/India---Hyderabad/Product-Designer_JR13087

This is a new team being built from ground up and seems poised for some exciting times ahead. If interested, please apply directly on the link.

2. Job Opening

Techgeons is looking for UX designers. Designer who are interested and having 3-5 years of experience can reach out to niranjan@techgeons.com

Share your portfolio along with your resume. as well as a short description about yourself (on skill front J)

3. Job Opening

The UX team at Livspace, Bangalore is looking for talented designers at multiple levels. If you would be interested, please send your resume along with your portfolio link directly to himangshu.borah@livspace.com

Responsibilities | Your job in a nutshell

- **Develop a deep understanding of customers and business priorities by working closely with Product Managers and Business stakeholders**
- **Create delightful and compelling, user-centered experiences across interfaces - like Web, Mobile, Virtual/ Augmented Reality devices**
- **Develop a universal design language and UI/UX principles to be adopted across the various components of our company**
- **Create clear wireframes, user flows, site maps, and smart visualizations to prototype and communicate ideas**
- **Work with the engineering team while implementation and conduct design testing of each component before release**
- **Conduct UATs and user research to continuously evolve the product**

About You | The qualities we value

- **A first principle design thinker**
- **Strong conceptualization ability, strong visual communication ability**
- **Exceptional design skills, production value and attention to detail**
- **User centric and obsessed with customer experience**
- **Up to date on the latest and greatest products that are coming out**
- **Experience in building scalable designs and identifying the corner cases where your design would fail - in a jiffy**
- **Capable of facilitating usability testing in a data driven way with A/B testing**
- **Strategize rolling out a major design change in multiple phases by breaking it down into logical design iterations**



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