

From Adaptive Design to Adaptive City-Design in Motion for Taipei City

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Abstract. Taipei has officially become the World Design Capital 2016 with the slogan of “Adaptive City”. Taiwan economic development is a fusion of Dechnology (Design-Technology) and Humart (Humanity-Art) which is also a process of design evolution showing an “Adaptive Design” in Taiwan design development. Therefore, this study proposes a design conceptual approach not only for Taipei to meet the requirements of WDC 2016, but also for Taiwan to establish a design strategy for the future. Hence, the purpose of this paper is to provide designers, companies, organizations as well as Taipei City with an approach for applying design thinking and with an idea for how to direct their efforts to meet the requirements of a new proposed design strategy.

Keywords: Taiwan design development, localization, globalization, glocalization, design strategy, cross-cultural.

1 Introduction

The World Design Capital (WDC) is a city promotion project proposed by the International Council of Societies of Industrial Design (ICSID, <http://www.icsid.org/>) that celebrates the merits of design, and leads a major step for the global design community. WDC is a biannual honor to a city across the globe to show its commitment to using design as a social, cultural and economic development tool. The WDC project seeks to maximize opportunities arising from multidisciplinary design collaboration through the WDC. ICSID seeks to promote several purposes of the WDC program such as promoting global understanding of design as an economic development tool. In 2005, ICSID officially named the city of Torino (Italy) as the first city to hold the WDC title and appointed it as the pilot city for the WDC project. In recognition of this crucial role, Torino with the design goal of “Flexibility” plays on an international level. Torino renewed its image from an industrial city to a WDC based in large part on “Design Thinking” which is a combination of innovation and creativity (Brown, 2009).

During the closing ceremony of the 2007 ICSID Congress in San Francisco, ICSID announced the appointment of the City of Seoul (South Korea) as the WDC title holder for 2010. With the designation of WDC 2010, Seoul is making efforts to transform itself into becoming a city in which its citizens are at the heart of every consideration. The vision of Seoul is to create an attractive and desirable city: "Design for All". The appointment of WDC 2012 was conferred to the City of Helsinki (Finland) in November 2009 during the ICSID World Design Congress in Singapore. In Helsinki, design is the enabler of building an open city, the booster of its social, economic and cultural development. The slogan of Helsinki as WDC is "Embedding Design in Life". The concept of 'Embedded Design' has tied design to innovation and has enabled desirable solutions that have addressed the needs of its inhabitants. The city of Cape Town (South Africa) was appointed as WDC 2014 at the 2011 IDA Congress in Taipei. It is a growing and vibrant city where design has for decades been a significant factor in its desire to build an open city. The theme for WDC 2014 is "Live Design. Transform Life". The city plans to develop and promote a program of events to run throughout 2014 focusing on using design as a tool that will help to transform the city.

Taipei has officially become WDC 2016 on November 19 following a vote by the ICSID and Taipei will be the fifth city to receive this accolade. The World Design Capital in 2016 has given Taipei the opportunity to show Taipei City to be a city of sustainable development with respect to life quality and health, ecological sustainability, smart living and urban regeneration. The slogan of Taipei City for WDC 2016 is "Adaptive City – Design in Motion: By the People, For the People. "Adaptive City" is a process showing the evolution of Taipei city's development. Moreover, Taipei will face the challenges of redefining itself by understanding the past, dealing with the present and facing the future through design thinking (<http://www.taipeidesign.org.tw/>).

The WDC seeks to promote global understanding of design as an economic development tool. On the other hand, Taiwan economic development is a fusion of Dechnology (Design-Technology) and Humart (Humanity-Art) which could be represented as a process from OEM to ODM to OBM. The three stages reflect the tendency of Taiwan design development, from "use" to "user", from "function" to "feeling", and from "hi-tech" to "hi-touch" (Lin & Chen, 2012; Lin & Lin, 2010; Lin, 2009). This is also a process of design evolution showing an "Adaptive Design" in Taiwan design development. Therefore, based on the Taiwan experience, the purpose of this paper is to merge the concept of Dechnology and Humart into design thinking in order to investigate the Taiwan design development (Lin, 2012). This study also explores other implications through the Dechnology and Humart perspectives for design strategy. The study results provide an approach for looking back at how Taiwan design development crosses over Dechnology and Humart as well as illustrating the interwoven experience of local design and global market in Taiwan's economy, industry and design development. This study then proposes an approach for establishing design strategy for how to direct these efforts in designing Taipei City as a WDC to meet the requirements of design in motion.

2 From Adaptive Design to Adaptive City

Taiwan’s companies have seen a recent shift from technological innovation to cultural product design based on discovering new opportunities in the global marketplace. Companies are now more focused on adapting new technologies and combining them in ways that create new experiences and value for customers. With the process of Taiwan design development, most companies gradually realized that the keys to product innovation are not only aspects of market and technology but also local design. Thus, Taiwan’s economic development was identified as progressing from OEM to ODM to OBM and was represented as a smile curve (IDB, 2012; Lin & Chen, 2012; Lin & Lin, 2010; MOEA, 2012; Lin, 2009).

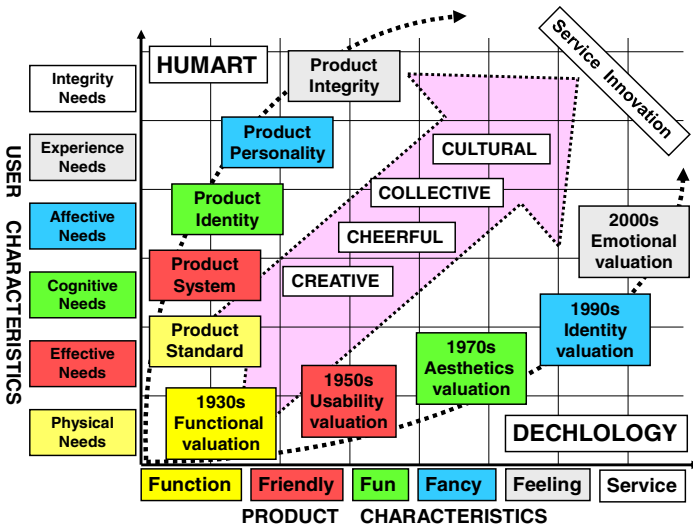


Fig. 1. Adaptive Design for Taiwan Design Development

Taiwan economic development is a fusion of Dechnology and Humart Art which is a process of design evolution showing an adaptive design in Taiwan design development (Lin, 2012). Hence, the Adaptive Design of Taiwan design development could support Taipei as a WDC with the core value of Adaptive City. In the OEM era, the “function” of the product will come first when designing a product. Then in the ODM era, what the “use” should be in the “function” will come next. Thus, the function focuses on the specification for the manufacturer, and the use concerns about usability for the users. Finally, the designer will seek the “Hi-Tech” to produce the product. In the OBM era, user-centered approach plays an important role in the product design. The question of who are the users always comes first while designing a product. Then, how to design “Feeling” into products becomes an important issue. Finally, designers will consider “Hi-Touch” beyond “Hi-Tech”. The change of Taiwan design development, from “function” to “feeling”, from “use” to “user”, and from “hi-tech” to “hi-touch” are shown in Figure 1 (Lin & Chen, 2012; Lin & Lin, 2010; Lin, 2009).

3 Design in Motion for Taipei City

In today’s competitive market, “Design Thinking” serves as a competitive advantage allowing companies to dominate particular market segments. With respect to corporate design strategy, design thinking is the key not only to extending market share, but also to increasing commercial gains. Tim Brown (2009) in the book entitled “Changed by Design” stated how design thinking transformed organizations and inspired innovation. For designers, design thinking develops through three stages from “inspiration” to “ideation” to “implementation” while functioning within a framework of three intersecting constraints of “feasibility”, “viability”, and “desirability”, all of which require the three characteristics of “insight”, “observation”, and “empathy”. For organizations, companies need a “user-centered” design strategy to explore the relationships between not only product and service, but also producer and consumer. In addition, innovation should focus on designing for the user’s emotional experience (Desmet & Hekkert, 2007; Yen, Lin & Lin, 2013; Yen & Lin, 2012).

To host WDC in 2016, how to design Taipei City as an “adaptive city” becomes an important issue. Based on Taiwan’s experience of adaptive design, this study is using “design thinking” to help Taipei City become an adaptive city. A global design strategy was proposed to fulfill the aims of the ICSID WDC program, such as recognizing innovative cities for their use of design as an effective tool for social, cultural, environmental and economic development in order to promote global understanding of design as an economic development tool and also share innovative design programs and strategies. Thus, design thinking is a design strategy for identifying the problems, developing the solutions and achieving the innovation. Based on design thinking, the framework combines “from use to user”, “from function to feeling”, and “from hi-tech to hi-touch” with “Environment”, “Authenticity” and “Qualia” as shown in figure 2 (Yen, Lin & Lin, 2013; Yen & Lin, 2012).

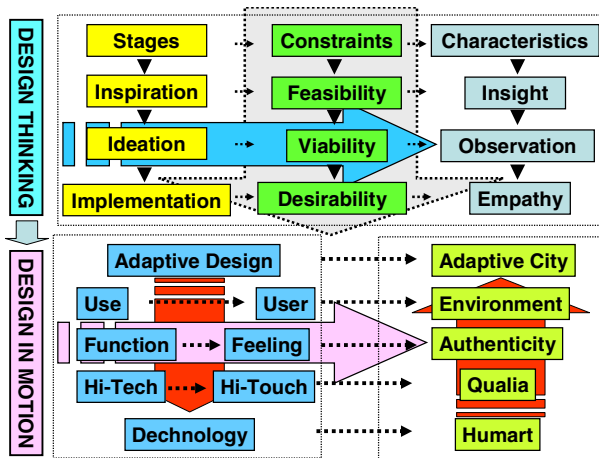


Fig. 2. The framework from “Adaptive Design” to “Adaptive City”

For the process from use to user to environment, environment is a core mission of Taipei. environment is an important issue of Taipei to become a WDC 2016. That means localization within a specific area, the life style of the residents is taken for granted as a habitual and cultural activity. Localization is a way of designing and marketing the product to the inhabitants of Taipei City. Localization integrates the product into both the life style and the local culture of the intended region. To be successful in localization, designers must pay particular attention to the technical specifications, sub-culture, and life style of the consumers, and to the nature of the product itself. There are numerous factors to consider for successful localization which must take the needs of the environment into account (Yen, Lin & Lin, 2013; Yen & Lin, 2012).

For the process from function to feeling to authenticity (Gilmore & Pine II, 2007), authenticity is the core value of the user's emotional experience which refers to the increasingly global relationships of residents, culture, and economic activity. Authenticity is a part of Globalization accompanying and allegedly contributing to economic growth. It means the process of crossing time and space limits by the social life, and the generation of interactive links by local cultural features through media propagation. In the globalization process, different societies, cultures, systems and individuals in the world fuse and leads to products which enrich regional, ethnic, etc., characteristics. Due to the fusion of cultures of similar nature, the consumer can become familiarized with a more diversified and wider local culture. (Chen & Jaw, 2009; Lee, 2011; Leong & Clark, 2003; Lin, 2011; Lin, 2009).

For the process from Hi-Tech to Hi-Touch to Qualia (Lin, 2011; Gilmore & Pine II, 2007), basically, qualia are things that we cannot easily describe to one another or that we might each perceive slightly differently based on a variety of reasons. Hi-touch refers to experiential properties of perceptions, feelings, and sensations. Qualia and the similarly "glocal" are properties of "Hi-tech" and "Hi-touch" such as, divisibility, comparability, connectivity, and satisfiability. The term "glocal" then refers to the individual, group, division, unit, organization, and community which are willing and able to "think globally and act locally." The portmanteau "glocalization" combines the influences of economic globalization and design localization. From the design point of view, glocalization is the trend of qualia in expressing a difference from similarity in local design under the concept of globalization and localization (Yen, Lin & lin, 2013; Yen & Lin, 2012).

4 Summary

The slogan of Taipei City for WDC 2016 is "Adaptive City – Design in Motion: By the People, For the People". "Adaptive City" is a process showing the evolution of Taipei city development. Moreover, Taipei will face the challenges of redefining itself by understanding the past, dealing with the present and facing the future through design thinking. The World Design Capital in 2016 has given Taipei the opportunity to show Taipei City to be a city of sustainable development with respect to life quality and health, ecological sustainability, smart living and urban regeneration. (<http://www.taipeidesign.org.tw/>).

Based on the previous studies and Taiwan experience, this paper studied the relationships between Dechnology and Humart which were merged into design thinking to explore Taiwan design development. Firstly, this paper explored Taiwan design development and identified the three stages of OEM, ODM and OBM for illustrating how to transform “local culture” into “global market” through a process of design evolution showing an “Adaptive Design” in Taiwan design development. Next, a conceptual frame work was used to study the tendency of Taiwan design development, from “use” to “user”, from “function” to “feeling”, and from “hi-tech” to “hi-touch”. Finally, This paper proposed a design in motion approach not only for Taipei to meet the requirements of “Adaptive City” for WDC 2016, but also for Taiwan to adopt this design development for the future. Hence, this paper provides designers, companies, organizations and even Taipei City with an approach for applying design thinking in order to direct their efforts to meet the requirements of the design strategy. In order to achieve design in motion for Taipei City, we need to study how to link “Adaptive Design” to “Adaptive City”; then the results can be transformed into design strategy. In order to transfer “Adaptive Design” to “Adaptive City”, this study establishes a conceptual framework to provide companies, organizations, and designers with a valuable reference for using design thinking to build a design strategy. The preceding discussion mentioned several researchable adaptive city questions. Others are summarized below in no particular order.

1. Designing “Taipei City” as a World Design Capital
2. Designing “Cloud Computing” into Taipei City
3. Designing “Fashion” into Uniform of Public Cleaner Team for Taipei City
4. Designing “Friendly” into Public Transportation for Taipei City
5. Designing “Female Prospect” into Public Space for Taipei City
6. Designing “Innovation” into Eslite Group for Taipei City
7. Designing “Qualia” into night market for Taipei City.
8. Designing "Culture and Humanity" into Taipei City
9. Designing "Friendly" into Public Park for Taipei City
10. Designing "Healthy" into Green Environment for Taipei City
11. Designing “flourishing” into Green Interior for Taipei City

These papers will be presented in a special session entitled “ From Adaptive Design to Adaptive City” in HCI 2014 which is an attempt to provide an platform for looking back at how Taiwan design development crosses over Dechnology and Humarts as well as illustrating the interwoven experience of Adaptive Design and Adaptive City in Taiwan’s economy, industry and design development. Furthermore, while cross-cultural factors become important issues for product design in the global economy, the intersection of service innovation design and culture becomes a key issue making both local design and the global market worthy of further in-depth study (Chen & Jaw, 2009; Ko, Lin & Lin, 2009; Hsu, Chang & Lin, 2013; Hsu, Lin & Lin, 2011).

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