Integrating Culture and Global Awareness into Industrial Design Education

Preparedness meets opportunities

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Introduction

Industrial designers are facing a great deal of challenges and threats as they enter the workplace today. The challenges that the designer faces include designing products that work, achieving success in the marketplace, and making products sustainable. Increasingly, the role of the designer is shifting its emphasis: designers now must help companies define and support their successful market strategies. Most challenging of all is recognizing the new global competitive threats that face industry and industrial designers alike. In a very quick timeframe, the perspective of industrial design companies has become global. Products that are produced in China are more prevalent in the market in other countries as well. As a result of this dramatic shift in production, manufacturing in China has become a perceived threat to industrial design in the United States. However, rather than seeing China as a threat, there are profound opportunities for industrial designers to learn and develop a global relationship with their Chinese counterparts. This is a time to ask how prepared are our young designers when opportunities are presented?

Background

Coming from a Taiwanese culture, a conservative and traditional one, the experience of U.S. culture is certainly diverse. The perception on how to be a better-equipped designer is changed throughout the course of years. The changes range from learning fundamental design knowledge, applying design in business thinking to historical effect on design in a holistic and global perspective. It has become apparent that culture is a significant element in how we perceive design and its environments.

While it is not the purpose of this study to add to the vast knowledge of different cultures throughout the world, it became the model that is used to understand how designers work within organizations and global networks. The “cultural” differences here are not language, cuisine, art, or literature. Here we consider how designers, managers, engineers, and manufacturers behave and interrelate. This becomes acute when distance, language, and customs are not comprehended at every level of behavior.

Concurrent with the cultural characteristics of design, an analysis of a historic timeline of U.S., China, and Taiwan that displays major events that occurred in the past 50-60 years has led to the discovery of hidden pattern in the history. These patterns emerged from examining social, political and economic conditions among the three countries and relationships as they pertain to manufacturing and industrial design. The finding goes beyond fundamental linear forecasting; it instead sees future possibilities as a predictable cycle occurring over several generations.

The holistic point of view of social, politics, and economic has shown that industrial design is in the transition of moving toward a global standpoint. Although everyone in the industry will be affected by it, the generation Y, born from 1987 to 1997, is the generation that will face this design impact. Since the majority of this generation is still in school, they are facing a great challenge to be flexible and versatile in this global environment as they entering the industry. For the next several decades, the industrial design industry will have many opportunities from the blooming China, at same time, dealing with new problems and issues. The ability to demonstrate the global networking and different level of culture will become vital for designers. Understanding that others might take the role of China at some point in the future is also critical. The key to adapt to this global environment is to use culture to communicate and gain perception on how others think and why they think in a particular way. To this point, culture is still quite an external element of design. For designers to reach their full capability, it has become essential for them to adopt culture internally.
It is time to realize that now is time to reposition industrial design, and it is the responsibility of the designers to lead the profession to a new era that embraces the global environment. The central tenet of this study is that a designer in the twenty-first century must meet opportunity with preparedness. As designers are at once form-givers and problem-solvers, this study epitomizes the notion that design thinking can be equal partner in strategic planning and business development globally.

**Educational challenges**

In order to prepare our young designers for the existing challenges and up-coming global trends, the educational system plays a critical roll. For designers, design education takes a path of defining their perspective and value of design. Each design program has different principles and methods of design education. In today’s design education, students learn design skills through different courses, which might constantly change according to social standards. Assuming that students have all the skills and knowledge to complete a design task in a school environment, can they also be versatile enough to adapt to a different work and mind set?

While the design program around the world might be somewhat similar to one another, we presupposed that students are well equipped to enter the workplace after the graduation. Nevertheless, many of the senior designers and company owners in both U.S. and China have expressed that new graduates can generally complete a task yet a large percentage of them are not able to think and work independently.

No matter how true it may be, it identifies that there is a gap between academic culture and professional culture to some extent. As the pace of education quickens, the focus may shift to a linear acquisition of skills rather than a nonlinear process that demonstrates sensitive dependence. Taking design process as an example, the greatest challenge is not explaining the design process, but demonstrating why it is valuable to business. The industry needs designers who are flexible and have the ability to adapt new thinking into their designs. Design thinking involves a lot of play, which may seem foreign to an organization, therefore, designers not only need to understand how the design process works in the company but also how to implement it.

Increasingly, a designer’s task elevates up to helping the company ask the right question and find the right strategy to bring the project team to solve. This has opened up a different dialog that the culture of the people in each individual department plays a key role in a company. As a designer, we envision and we portray possible futures; and we can generate hundreds of solutions. Most professional are not trained this way. Instead, they are trained to come up with one answer really well. In order for business people to understand a design’s implications beyond its immediate form, designers have to think in a business aspect of formulaic process. Communication is based on the validity of the process and how to get to the next step, as well as why the idea is valuable and why it should be executed in a particular way. On the other hand, engineers are more technical thinkers; they need to understand how to make the product work. In this situation, the designer needs to understand the manufacturing process, material, cost, and complexity of the product to be able to discuss an entirely new set of factors.

Furthermore, every company has its own internal culture that benefits and affects the overall performance in the working environment as well. Take IKEA as an example. The culture of IKEA is about “good design with affordable low prices”. IKEA created this trend so that people walk through a showroom to see different setups of furniture. Each piece of furniture was given a number. Customers write down the number, than pick up the ready-to-assemble flat package on the first floor before check out. Most people are delighted by the design and the low prices IKEA has, even designers. Nevertheless, if we looked beyond the design and manufacture of IKEA’s products, we would find that it takes great effort and a business mind-set to create this global brand. The product strategy that founder Ingvar Kamprad created was to sell furniture that is 30 to 50 percent lower than competitors, yet still produces high quality and cost efficient furniture. Due to this strategy, designers in IKEA not only need to consider on manufacture cost but also how many unit of the ready-to-assemble package they can fit into a shipping container (Youngme, 1-13).
In contrast to cultures within a corporation, consumer culture plays an important roll in how products are defined in the market. Every product that has been designed takes a place in consumers’ lives that are suitable to their lifestyle. Knowing consumer culture results in a better understanding of the target market. So, what exactly is consumer culture? It is based on social life and cultural value. As the technology, society and trends change with rapid speed, the consumer has more choices, as well as individual customization of a product. Decades ago, consumers mostly looked for “a” product that worked. Nowadays, consumers look for specific products that are right for them. In today’s society, consumers are no longer just looking at the price and functionality of a product, but also its quality and service. Since consumers have more choices when they shop, they are slowly trained to pay attention to the experience of different products. Designing a product has become user-driven; so much so that designers are looking for patterns of lifestyle and value in different classes, genders, and generations.

While we realized that cultural influences could bring a significant impact in our life and work setting, how does this information abet designers in an educational perspective? Understanding different aspects of culture allows designers to position themselves in various situations, such as, communicating between in-house design to off-shore manufacturing, assisting companies to oversee production, and inform and assist a global client. As both design and markets are going global, designers’ communication abroad is also increasing. More and more, designers are sent to China to work with their manufacturer or selecting a manufacturer with which to work. This indicates that designers are facing cross culture communication challenges.

Understanding how others think, what they do, and why they do it should be the very first step of design process.

As an industrial designer, there is a huge possibility that we will eventually need to communicate with off-shore manufacturers or work with a Chinese engineer at some point of our career. It is necessary to understand how the designer fits into the manufacturing process of real products and off-shore product development. As a designer, it has become clear that understanding how others think, what they do, and why they do it should be the very first step of design process.

Global awareness
In the past decade, the world has witnessed the fastest growing economy in history—China’s—that is not only a competitor, but also as a marketing opportunity for American designers and corporations. China is also a partner in the development of third world economies. Thus, what is the connection between the global economy and the designer? To most designers, the global economy is a foreign language to which not many people pay attention. However, as design and the market are going global, it has become necessary to understand the basic knowledge of the global economy and how each company plays a part in it. Due to the fact that the designer’s role is shifting and many companies have focused more on the strategic level of design, understanding the placement of companies in the global economy will assist designers in viewing design with different perspectives.

The global economy has a chain effect; the shifting of one element causes other elements to shift as well. In China, for instance, the standard of living was less than average before China was opened for foreign investments. After China opened their doors to investments in 1978, its economy started to rise (Zhang, 336). Companies in other countries are consistently seeking out low-cost manufacturing, which requires cheaper labor. China comes into play in this picture as companies start to move their factories to China. Take the U.S. and Taiwan as an example, China becomes the major exporter of products, industrial raw material, and agricultural goods to Taiwan; and manufactured export products for U.S. companies and many others. While China has developed into the largest manufacturing and production country, Taiwan has become the world’s largest supplier of computer monitors and is a leading PC producer, exporting electronics and consumer goods.

Why is this important? The key to our future is not limited to our own economy, nor can we become a nation of consumers, without producing significant wealth ourselves. The aspect of
global awareness provides designers insights on how industry was and how it might become. It helps designers build a sensitivity to global markets though time and distance.

Changes of China’s status quo
As China is going through this chaos of understanding industrial design, the value of design, the significant impact of design research, consumer markets, and many other transformations, they are eager to learn and collaborate with the West. During the International Industrial Design Expo at Wuxi China in 2008, the Wuxi vice mayor expressed strong interest in associating with the IDSA to bring in-depth design understanding to China. Michelle Berryman, Brian Roderman, and Tim Fletcher represented IDSA as IDSA President, Section Vice President, and International Liaison officer to discuss many design issues and how to build a stronger relationship between East and West. In July 2009, Roderman attended the Chinese CES show as IDSA Chapter Vice President, giving a presentation on Design for the Future, in particular for China’s development, and to discuss similar issues with the mayor of Qingdao and many design professionals. From here, we can clearly see that China’s hand is reaching out to bring design’s impact to China; this is not just about business, but also about taking business to a higher level in understanding culture, the consumer, and building a global relationship.

In the next few years, many OEM (Original Equipment Manufacture) businesses in China are shifting to an ODM (Original Design Manufacture) business model due to the recent economic downturn. Even more, their focus changed from manufacture and export to design and manufacture for the Chinese market. Some companies, such as TCL, the largest television manufacturer in China, is taking the riskier path to build their brand name (Oregonian), in which the OBM model (Original Brand Manufacture) promises a greater share of the revenue stream over time.

As a result of the OEM to ODM shift, many companies in the U.S. and Asia have started to explore the Chinese market. Not only is it is a potential market for sales, but also an opportunity for design. With 5000 years of Chinese history, China’s culture is far stronger than their marketing, and their culture has become an essential part of product design. In order to successfully sell products in China, companies need to tap into this strong culture.

China’s culture is far stronger than their marketing

While people are impressed by the economic growth of China in the past decade, there are patterns in this history that will affect China’s economy dramatically in 25-30 years. How so? Most people are familiar with the baby boomer generation, following War World II, when 79 million babies were born in the U.S. China also had a high birth rate between 1962-1965; the nation’s population exploded. In 1979, China announced a birth plan called the “One-Child Policy” (Zhang, 279). People born under the One-Child Policy started entering the labor market in the past decade and will start to retire in 30 years. If we look at the timeline, Chinese Baby Boomers that were born between 1962 and 1965 are most likely going to retire around 2025. China will face a labor shortage and imbalance of young and old in 25-30 years, as the effect of its One-Child Policy becomes manifest. Since China is a labor-intensive country, this will also influence its economy from a global standpoint.
Building a collaborative future in design education

When students go to college or graduate school, they are expecting to learn everything that would be beneficial for them. As mentioned before, there is a gap between the academic culture and professional culture. New graduates often struggle with skills which the industry demands. In this case, some people would respond that it is impossible for schools to prepare students for everything. However true this may be, most of the demands are related to the mind-set and value of design that students have. This study bridges the demand from a student designer to a professional designer. It provides immediate awareness of and value for the learning experience. There is an urgent need for young industrial designers to realize that they can do so much more if they choose to take the role.

While there are some obvious issues and challenges for industrial design in this study, it is time to integrate culture and global awareness into industrial design education. This could be done in several ways:

First, this could be implemented within, or in addition to, college course work as a one or two week intense seminar. Some design schools currently provide an introductory design program during the summer or winter break. Schools could use this existing format to create a collaboration seminar among designers, engineers, and MBAs. Students would not only learn to communicate and work with people in different fields, but also learn to articulate their own design process in many ways.

Second, schools could bring outside resources such as design firms to conduct the seminar. This would mandate that students need to understand the process of business planning and take this into consideration while designing.

Third, build a course that collaborates with schools or companies overseas. To accommodate different schedules, the program length could be between four weeks and a full course. There are schools currently doing collaboration projects with other schools abroad. Although this type of exchange fosters greater understanding, the key of this collaboration is not only teaching design but integrating design with business, marketing, and manufacturing enterprise residing in these countries.

Fourth, establish a visiting professor or student exchange with a sister school overseas concentrating on the culture residing in integrated product development. This is a mutual benefit for both parties to learn culture and design in a dedicated holistic platform would involve other department in addition to design.

The following seminar example provides a variety of topics that would supplement a school curriculum in preparing students for a global competitive environment.
As designers, we have been taught to think outside of conventional mindsets. Nevertheless, we often limit ourselves within our own design framework. Generation Y designers, emerging in the new global context, have a different cognitive process in which they are not only thinking outside of conventional patterns, but also outside of their own culture. Chinese students who study in the U.S. will become the driving force in the Chinese design community and design schools. On the other hand, U.S. students who learn about cultural differences would benefit in working with companies that outsource to or seek to build markets in China. Think about this as a chain effect by which the industry could use this understanding to forge others to improve and create an even faster development in industrial design.
Whether one considers the business aspect of design, global networking and collaboration, engineering, or marketing, it all fits within the context of culture. By understanding this, students can learn to view their designs from different angles, which would result in their appreciation and respect for design's true value in their own future. Designers have the opportunity to learn about global networking, explore the area of design beyond the design process, be able to place themselves in a business environment, understand cultural differences, design for the global market, and so on. This will become a key factor that differentiates one designer from another. Utilizing this new potential, there is not only a connection between industrial design and the global environment, but more specifically, the industrial design student and global environment are interconnected.

References

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