

## **Globalized Economics Drives New Design Education Methods: Inviting Students to Participate in an Increasingly Globalized Design Market**

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### **Introduction**

The new globalized nature of capitalism has forced product and service companies to look beyond their own traditional and mature markets to focus on overseas development that will expand and grow their bottom line. Executives are increasingly concerned with developing overseas markets to satisfy shareholder growth requirements. "A company's long-term goals in China and the timing of the moves required to meet them are strategic issues that chief executives all over the world are, or should be, pondering."<sup>1</sup> In order for design education programs to offer design graduates that can understand the global nature of this new business model, design education is now looking beyond its local roots to partner with university design departments overseas as well as work directly with globalized corporations to reduce the transition time between academia and productivity that targets the new growth areas of the globe.

Increasingly in design education, it is the globalized corporation that is stepping in and sponsoring design education programs that its future employees will gain valuable and relevant experience from. This direct influence, sponsoring and funding of tomorrow's product designers, allows globalized companies a very valuable glimpse into the future of what their future customers and consumers may want in the products, services and experiences they will need and desire. This supplemental education of tomorrow's product designers is part savvy research and part good corporate citizen on the part of the globalized corporation. These sponsored projects have now grown in complexity and include international efforts to not only focus on the application of traditional core design pedagogy and real world design problems, but new cross-cultural awareness and communication skills as well. In such a globalized environment, the host universities benefit by an in-kind intellectual exchange of design professionals currently practicing within the industry as well as donations of sponsorship funds and technology tools that design students will utilize in their professional careers. Tools and funding that cannot possibly be included in the universities limited design department budgets.

In this paper, I will discuss several of the driving forces of globalized economics that are changing the way design education is conducted. As product companies seek to innovate and further their global reach to export their brands, products, services and experiences to other cultures around the world these economic factors are not to be ignored. From the state level in China, to the fading chebol of South Korea, to the independent and tribal design communities of California, and the highly specialized luxury oriented designs coming from Europe, this paper will illustrate how design education is changing in order to identify the problems and meet the needs of the new globalized marketplace as it prepares students to enter the professional world where the new "design thinking" is emerging.

As design thinking permeates the minds and strategies of executives around the globe, this new paradigm being constructed to innovate not only at home, but now abroad in markets that have no connection to what traditionally may have been the companies focus for growth and prosperity. This awareness and understanding of how cultures are different from their own, go about their daily life in work and in relaxation are included in the necessary new skills needed for designers to create the future of products and services that will provide economic growth and prosperity to the diverse markets around the globe. International cooperative efforts between industry and academia like the Samsung Design Membership mark a new evolution in design education.

As Wonkyung Kim of Chung-Ang University and Co-director of the Samsung Design Membership noted in his address to participating students, "Guided by the theme "Self-Expression" we have successfully created another international industry academic cooperative entity, thanks to each team member's passion for design and [the fruits of their labor]. The team members held countless discussions that

lasted through the night; and I witnessed those ideas being translated into a very innovative visual feast transcending race and color. It was indeed inspiring to see you pursuing a life with a sense of design.” This method of international exposure, cultural exchange and cooperation among design students is a clear indication that the way in which design students are being educated has evolved into the global sphere. Design programs not changing with the times and failing to expose their students to this evolved method of pedagogy and corporate style partnership, will forever be undervaluing the degrees they are offering and not preparing students for the reality of design and business practices in the globalized 21<sup>st</sup> century.

### **What Are The Economics That Drive Change to Design Education in the New Globalized Business Sphere?**

Declining consumer spending and increased debt levels are of primary concern to the future growth of any mature industrialized economy. In the United States market, the growing of consumer debt policy implemented by the Federal Reserve Bank’s model for the economy leads multi-national product companies around the world to redirect their innovation efforts to the emerging middle classes in Asia to fuel the growth of their futures. At the consumer level, banking analysts are concerned about the growth of US households and their ability to continue their consumer spending ways which will lead to increased consumer spending. Debt levels continue to rise in these households which will increasingly stifle spending growth at the consumer level. Regarding central bankers from around the world, Alan Greenspan, former Head of the Federal Reserve, stated, “They have been disturbed particularly by the rising ratio of household debt to income and the precipitous decline in the household saving rate. The analysts point out, correctly, that the ratio of household debt to disposable income has risen especially steeply over the past five years and, at 1.2, is at a record high. Moreover, many have recently become increasingly concerned about the exceptional run-up in home prices. They argue that a collapse of such prices would expose large, recently incurred mortgage debt to decreasing values of home collateral (Greenspan, 2004).” With consumers unable to continue their spending ways, economic growth and product innovation will naturally find new and emerging markets in which to flourish.

Chinese consumers on the other hand, are known for their frugality and are loathe to part with their hard currency to purchase superfluous material items. The IMF, World Bank, national governments and their consultants are busy generating legislation that will increase spending and the flow of goods, capital and services to developing middle class economies in Asia. Imagine a design brief that outlines a project to design an entire existence of modern consumerist living from transportation to home design and house wares to recreation, not to mention the business products necessary to develop in order to create such a plethora of goods that will move rural agrarians into a consumer style culture. This projected increase in economic growth will raise the demand for talent that will produce the growth levels desired by the international banking community. Without the increase in the development of talented designers, this growth pattern will not be realized as projected. “Executives also see significant threats to China’s continued growth; these include a shortage of talent and weak enforcement of commercial laws and regulations. But many respondents say that the country can address its challenges sufficiently (McKinsey, 2007).” That is exactly what is on the drawing boards of the designers in the BRIC nations. (Brazil, Russia, India, and China). Design talent is in short supply in Asia and elsewhere, the construction of an infrastructure to educate and develop talented designers is just beginning to produce productive innovative design professionals. As these designers emerge from their newly constructed universities and design finishing schools that are funded in part by corporate sponsorships in China, Japan, South Korea, India and elsewhere, they are beginning to create the necessary products and services needed to fuel growth in their respective economies.

### **A Case History: Globalized Corporate Sponsorship**

In order to gain an edge and understand the implications of new markets for its products, South Korea’s Samsung Electronics Co. Ltd. has created the Samsung Design Membership (SDM) program that allows undergraduate product design majors to part-take in cross cultural design projects with other University design programs within South Korea, as well as other product design programs from around the world. This unique program allows students to work in teams with other students from other programs to speculate on the future of consumer electronics, mobile communications as well as other consumer products. Each year a new group of University design programs are invited to participate along with the

many design programs in South Korea.  
Invited international design programs:

Konstfack University of Art, Craft and Design–Sweden  
Chiba University–Japan  
Academy of Art University–United States

Participating local design programs within SDM:

Kook-min University–Korea	Kon-kuk University–Korea
Han-yang University–Korea	Chung-ang University–Korea
Seoul National University–Korea	Korea University–Korea
Ewha Woman’s University–Korea	Jeju National University–Korea
Chungbuk National University–Korea	Dan-kook University–Korea
Yonsei University–Korea	Sookmyung Woman’s University–Korea
Sungsyunkwan University–Korea	Seoul National University of Technology–Korea
Hong-ik University–Korea	Korea National University of the Arts–Korea
Se-jong University–Korea	Korea University of Technology and Education–Korea

Representative instructors from Chiba University in Japan, Konstfack University of Art, Craft and Design in Sweden, Academy of Art University (AAU) in the USA, and the Samsung Design Membership in South Korea met to discuss the next Global Sponsored Project sponsored by Samsung. In the meeting the theme of Self-Expressionism was assigned to the next generation of products relative to local lifestyles in Japan, Sweden, USA and South Korea. The instructors were then tasked with returning to their respective schools and forming teams that would address Business Solution Models and not just stand alone products in the broad sectors of Construction, Finance, Medical Services, Cultural Business, and so forth. These teams would then collaborate throughout the course of the project with the corresponding local Samsung design offices (team Sweden with Samsung London, team Japan with Samsung Tokyo, and team AAU with Samsung Design America in San Francisco).

### **Team Formation**

Back in San Francisco, two teams were formed; the LDP (local design program) and GDP (global design program). The LDP was comprised of 4 students from the Academy of Art’s Industrial Design program. The GDP was an combined group of 5 students from SDM as well as 4 students from AAU’s industrial design program. For the sake of this paper, the Global Design Program will be the selected case study. This was done to allow for cross-cultural interaction and project execution by a team that was separated by proximity but not by technology. The idea being, to swap research findings and then design a concept for one another’s respective market in another nation. In the preliminary kickoff meeting it was discussed that the GDP groups from Seoul and San Francisco would design product concepts for one another’s respective market to test and explore the idea of working together from across the Pacific Ocean in a market that was completely foreign to them.

### **Introductions**

The students created bios of themselves and exchanged them with their counterparts via email. Name, school, academic major etc. were all included to familiarize each other with their new team members across the ocean.

### **Market/User Research**

Taking the theme of Self-Expression, the San Francisco GDP and Seoul GDP groups set out to define what the differing levels of self-expression there were in Seoul and San Francisco. In order to educate their counterparts overseas about the needs, wants, and existing problems the consumer faced this area of market exploration, the students produced several topics for discussion. Topics of exploration by the San Francisco team included: art, technology, family, fashion, weather, transportation, geography, agriculture, and recreation. The Seoul team explored: devices, metaphor, forms and mirror image.

From there the teams went out of their studios with these themes to explore actual places, spaces and

environments of their market in order to capture empirical evidence of the way life is lived in their respective city relative to the themes. This allowed for the revealing of unbiased perceptions of the individual team member views of their own region and taught them that not all agree on how a specific event or phenomena exists in a particular market. For example, the San Francisco team studied transportation and realized that there was an abundance of experiences that bay area commuters have in order to get to where they were going. This forced the students to appreciate the variety and complexity of the entire transportation system and the ways in which it can be utilized. The Seoul team studied the COEX center in the Kangnam are of Seoul where international conventions are held. They realized that it was made up of a number of sub-zones that had individual functions in catering to the experience of attending a convention or conference as well as the local working population during the regular workday.

After this initial canvassing of their cities, the students needed to agree on a common area of focus that both Seoul and San Francisco shared, and that could be targeted for innovation and improvement of the self-expression. Using a number of technologies like email, msn chatting, video conferencing, remote online file server storage etc. the students were able to discuss and identify that the outdoor recreation scene of inline skating was one cultural area that both the cities had in common, but were both very different in their respective culture as well as method of self-expression. San Francisco had the Golden Gate Park where individuals gathered to exercise and perform for one another using inline skates, skateboards, and roller skates. Seoul had the Han River Parkway where the activity was more group oriented than individual in the area of inline skating. Each were areas that locals went to recreate but in very differing ways.

In addition to the agreement of the common area of focus, the students were instructed to research the current and emerging technologies that were being discussed in the media. This allowed an exchange of technologies like: Bluetooth, holograms, WiMAX, OLED displays, TDMA, polymer gels, Pegblock, Nanotechnology, Mobile ASPs and human skin data-transfer technologies that were very different from one another's market and illustrated that each nation can be focused on different technology trends at the same point in time. Although this avenue of research was valuable to the student's awareness, criticism revealed that the local office of Samsung was more interested in how the students were addressing the needs of consumers and understanding the qualitative nature of the East as opposed to the quantitative nature of the West's consumer culture.

In addition to the student's efforts to get out of their studios and conduct observational research into the nature of problem identification and consumer needs and wants analysis, they also attended several special interest group meetings that are very popular in the Silicon Valley's culture of high-tech academia and entrepreneurship. Intel held a conference on emerging mobile technologies, Xerox PARC held a lecture on the state of Nanotechnology, a local Silicon Valley tech executive was invited to give a talk on the latest global wireless technology advancements and applications. The students were encouraged to network within the Silicon Valley community of technologists, venture capital firms and entrepreneurs and make themselves known as a group that was also participating along with the already globalized design and business community of the Silicon Valley.

### **Concept Generation**

By this point in time 4 weeks into the project, the students had begun to understand one another as well as identify with the projects broader goals of intercultural and international exchange. The make up of the teams was as multi-cultural as one could imagine with members from India, Sweden, Japan, Korea and the United States from AAU and entirely Korean students from the SDM team. The mutual agreement to pursue new self expression concepts for the inline skating market began the more intensive deep research that lead to problem identification and needs/ wants analysis. Once complete, the students were now tasked to hand off the research of their local inline skating recreation market with the other team in their respective nation for study and application. Based on the empirical research compiled by each group, generating product concepts for users and a market that the designers had little or no knowledge of brought an entirely new variable to the task of designing products. The students were forced to set aside their traditional intuitive design instincts and focus on the data in front of them in order to generate product concepts that fit the local consumer mentality and economic model.

The students in Seoul delivered their research outlining the popular pastime of inline skating along the recently developed Han River that flows through the heart of Seoul. The public paths and recreation areas that have been developed in the last 10 years have allowed the Korean population to include more leisure time in their lifestyles as they transition from a 6-day work week to a more western 5-day work week with more time for family and friends on the weekend. Many organized inline skating corporate events are carried out with regularity and the market is extremely competitive as a sport. Many of the concepts generated included an element of group interactivity and self-expression within the group.

The San Francisco team discovered that there are many such venues for inline skating in the Bay area. Also included in this market were a highly developed skateboarding culture and more traditional roller skating culture that had remained after their rise to popularity in the 1970s. The use of these sporting activities was more for exercise, charity fund raising, performance and fun rather than competition. The concepts developed by the SDM group for the San Francisco market centered around music portability, enhancement of the visual qualities of performance and the extreme nature of sports in general.

### **Local Office Input**

Throughout the course of the project, the local offices of Samsung Design were scheduled to attend critiques of the student's progress both at midpoint, and just before the final presentation that was to be given in Seoul. This provided the guidance and direction necessary to address Samsung's needs in the market areas where it had set up design offices in the US, Europe, and Japan. The US office of Samsung Design America in San Francisco allowed the students to visit their studio and present concepts to their designers for critique for their midpoint review. This gesture simulated the environment of presenting in a professional manner and helped boost the quality of the presentation that was delivered by the students. The students work was evaluated and redirected in several areas to better reflect the direction of Samsung and its global strategy. Several noted criticisms were recorded and then implemented into the design concepts afterwards.

"Stress user needs over technology"  
ST So—Director of Samsung Design America.

"Understand the difference between the qualitative East and the quantitative Western cultures"  
Peter Brandenburg—Senior Manager of Samsung Design America

The GDP students were also instructed to exploit the differences between San Francisco and Seoul markets rather than the similarities that had been addressed in several of the concepts presented. This very real exercise allowed the students to understand the professional application of their efforts as designers and what it is like to satisfy a client and their needs for the project.

### **Midpoint Presentation in Seoul, Korea**

After listening to the feedback given by the local office of Samsung Design America, the students prepared their concepts for transport and presentation to the entire Samsung Design Membership group in Seoul the following week. A small team was invited to represent the concepts to the audience that included the teams from Japan, Sweden, and Korea.

The SDM made arrangements for each team to present their ideas at an offsite venue that created the atmosphere of cooperation and mutual exchange. Over the course of 2 days students, instructors and Samsung designers presented, evaluated and critiqued ideas and design philosophy. Each team was given the opportunity to take the stage and give a power-point presentation of the concepts that they had developed. Afterwards, team building exercises and individual Q&A sessions were conducted allowing for more in-depth inquiry into some of the more complex conceptual and analytical ideas presented. In this setting, the students illustrated varying approaches to design and problem solving. The Japanese group presented a very analytical model of how the consumer mind works and how it desires certain affluences over time with statistical analysis to back up their theories. The Swedish team was very concerned with profiling consumer taste but in a less scientific/analytical and more marketing savvy way with the use of psycho graphical profiling of fictional and ideological consumers that did not exist per se but were intended to provide new lifestyle choices to current consumers. The American group presented their

findings of empirical interviews they had conducted with various people they had studied in their respective market. They revealed the complexity and diversity of the San Francisco bay area's market with its tourist centric and high tech economies. From all of this consumer taste level measurement, the product concepts presented had both relevance and innovation applied to situations and opportunities that were discovered in the respective markets. This type of intelligence gathering in multiple markets is the type of edge globalized corporations are increasingly becoming reliant on when making important product launch decisions overseas. By working with design students, they are able to glean insights not normally revealed through the use of more traditional focus grouping or market data.

### **Concept Refinement/Prototyping:**

Upon returning to San Francisco from Seoul, the remaining students were brought up to speed on the valuable feedback generated at the presentation. Singular concepts were selected from the large numbers that were presented and refinement of the concepts was commenced.

At this point the focus shifted from research to execution of presentation materials. Form factor development, material selection and graphical user interface communication design were all incorporated into the selected concepts. Over the course of the next month each concept was developed and communicated through the use of appearance models, CAD modeling/rendering as well as additional supporting two-dimensional materials. After a frenzy of productivity over the compressed summer semester, the local office of Samsung Design America was invited to visit the student's studio for a final presentation prep session.

Presentations by both the LDP and GDP were given and feedback was communicated to polish the final delivery for the presentation in Seoul. As the students were well prepared to present the details of their concepts, the local office designers provided the students with tips and feedback that would help them present to a more globalized audience that needed more explanation in the areas of idea transference and the understanding from a global contextual perspective. Students proved themselves to be very well acquainted with the micro aspects of their projects, however without the local office feedback, the macro elements of globalized context and idea juxtaposition would have gone unnoticed, thus avoiding a cultural disconnect at the presentations in Seoul the following week.

### **Final Presentation:**

The Samsung Art and Design Institute gallery in the Kangnam-gu district of Seoul provided space to assemble the exhibition. Each team was allotted a space to display their graphical materials as well as their models and prototypes. Each team was given 20 minutes to present their final designs to the audience of over 60 people including top executives at Samsung. The midpoint presentations set the tone for the final in that the production value of each presentation was to include multimedia techniques to help explain all of the details. Since a limited number of positions were available for students to make the long journey to Seoul to represent their schools design program, a drawing was held and names were drawn from a hat to decide who would attend. The presentations included animated CAD demonstrations of several concepts, recorded audio and video in some cases to help present the designers vision as they had intended. The multimedia shows given were a blend of forward thinking innovation and sophisticated visual communication techniques. Appearance model presentations revealed a wide variety of techniques and philosophies for producing models and prototypes. The American students model making process reflected a comprehensive display of core skills that included the fabricating their own models. The Korean teams revealed a divisional approach to producing models that included specialized model makers and detail experts that worked separately as a discipline with industrial and visual designers.

At the end of the presentations three awards were handed out to Best Application of Theme, Best Application of Global Cooperation as well as Most Creative. Samsung's Executive Director Kook Hyun Chung handed out the awards giving the winning students and opportunity to receive their award as well as express themselves further in the form of a small thank you speech. Afterwards, informal mingling, a photo session and press interviews concluded the event before everyone let their hair down and attended a final dinner and party.



GDP Group Seoul



GDP Group San Francisco



Seoul GDP Group Team members



Samsung Design Membership Group

## Summary

As product design plays an increasingly important role in the overseas expansion and growth of corporations and product companies, design education will follow suit with programs and opportunities that allow for new learning of the cultural aspects and differences that are emerging in the ever increasing industrialized world(s). As businesses spend more capital in the areas of research and development overseas, design students will need the sensitivity and ability to understand a design brief written for a foreign nations market. As they gain this ability to adapt designs for a number of globalized markets they will need to globalize their careers as well.

For example, a designer living in Sao Paulo for a few months will then go back to Tokyo for implementation of research using project management resources that exist in only that city. Product designs for a specific market will be created and implemented by designers from unrelated backgrounds. A very relevant article in Korea's *Chosun Ilbo* news portal reported recently how automobiles will be made in faraway places and then exported back to nearby markets, effectively creating another level of territorial competition "Under the just-concluded FTA with the US, Korea will lift tariffs of 8 percent on car imports from America. By a twist of fate, that also means Japanese cars manufactured there—and they could have a devastating impact if they hit the Korean market at low prices." What this means to the

designer is Japanese branded autos will be manufactured in the US for Korean consumers. The designer of those same autos may in fact be German or Chinese depending on their experience and sensitivity to the Korean car market and experience with Japanese auto design standards.

In addition to large global companies, small and medium sized businesses are now increasingly spending more and more capital overseas to increase efficiency and take advantage of localized market intelligence factors. Michael Mandel of *Business Week* states, "Virtually every major company is trying to reduce costs and get closer to fast-growing markets by spreading manufacturing operations and research facilities around the world."<sup>2</sup> Innovation will increasingly follow very predictable patterns of growth and designers will need to understand those patterns of development in order to design for the next future business cycle. When the economy of the US is in recession, the economy of China may be on the rise, thus designers will need the intelligence and flexibility to design for the natural cycles that are a part of the now globalized and volatile patterns of economic growth and decline.

In the future, design students will increase their value and marketability by desiring to understand and design for other cultures that are different from their own. Being able to apply this understanding as well as respect cultural sensitivities will give new dynamics, power, and responsibility to the career choice of product designer. Traditional skill mastery and a singular national perspective will not be enough to offer a globalized employer much value. The portability of designers willing to spend time traveling, living, empirically researching and designing all at the same time will in the end pave the way to ever increasing understanding of globalization and design as they merge closer together.

Designing what is "innovative" from a culturally intuitive and nationalized perspective has changed. With globalization, product design has crossed borders to seek out and develop products that are unique and beneficial to the selected markets stage of development. Designers applying knowledge of their own national culture to the design of new innovations is no longer as innovative as it once was. Understanding the way another culture lights their home, performs surgical procedures, speculates on the next step in a nations economic development or how language effects the use of a product are all necessary skills among the more traditional ones that designers will need to compete on the now globalized design stage. Opportunities like the Samsung Design Membership allow for such globalized understandings of the design world and increase the awareness and sensitivity that the designer will need in order to apply their creativity and productivity in a relevant and profitable way for themselves, design firms, corporations, and nations that employ them.

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<sup>2</sup> Mandel, M. (2007) "What spending slowdown?" *Business Week*.