Institution-led Culture, Culture-led Challenges: Learning from the 2009-2014 Korean Design Education of Pursuing the Concept of Convergence

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Abstract

Background   Convergence has been very popular in an institutional way in South Korean (hereafter, Korean) design education. The Korea Institute of Design Promotion (KIDP) supported the "Convergence Design College Development Project" in 2009 and is a representative case for convergence. The project is finished, however, it is still important for us to analyze the effects and review the results of the project.

Methods   First, the social background of how the project came about in Korean design education was analyzed and explicated. Second, the major documents of promotion and guidance of KIDP was analyzed. Third, the actuality, achievement, and the limit of the project through participant interviews was measured with a sociological viewpoint.

Results   The project has a strong impression through unfamiliar experiences to those who designed and led the program. The project also resulted in fatigue and confusion to the students. This seems to have happened because the project vaguely provided the concept of convergence at the implementation stage and the participants thought superficially about the project's expected performance.

Conclusions   The project supported by KIDP tried to establish a basis for a Korean design education program that breaks the boundaries between fields by referring to advanced Western cases. However, the achievement seems insufficient. Due to this effect, the lack of awareness and consideration of the concept of boundaries work. In order to overcome these limitations and problems, design research should be more concerned with research methods for understanding societies that enable the existence and function of design.

Keywords   Convergence, KIDP, Institution, Culture, Developing Sociological Design Research Methodology

1. Introduction

The objective of this research is to analyze and assess the "Convergence Design College Development Project" from 2009 until 2017 and its results, which was funded by Korea Institute of Design Promotion (Hereafter as "KIDP") and to draw up further progressive plans for convergence design education in the future. The focus is to allow the system of design education which pursues "convergence" and the concerns of its implementation and experiments of such system to strengthen the qualities of sociological observation and analysis on the concept of design creativity. More objective analysis of the attitude of epistemological and cultural comprehension of how we need to explore and experiment the object and theme of "the necessity of convergence and method" is required. This allows multi-faceted discussions on the application in the society of such education to take place. Equally important as "suggesting certain ideas and attitude and practicing them," is "the process of realizing what the ground for such idea is, what range of facts does this idea exclude" (Yi. et al., 2007) which should be sufficiently understood and reflected in the 'internal' field of design researches and practices so that active exchange and convergence with the 'external' of it can be made possible. (see Park & Kim, 2007)

For the first, the social background of how the "Convergence Design College Development Project" (hereafter as "the Project") came about in the Korean system of higher education of design, would be explicated. Afterwards, major documents of promotion and guidance of KIDP which supported and promoted the Project (2013a, 2013b, 2012, 2009) will be analyzed from the epistemological aspect. Furthermore, the actuality, achievement, limit of the Project will be studied based on the interviews with participants from universities (undergraduate students in design or other majors, and graduated students, etc.) and other related people (undergraduate students and graduates of other majors than design, having participated in the educative program of the Project). And then, the object and attitude of determining themes of the currently on-going educative program toward convergence "centered on design" will be objectified for contemplation in order to display an aspect of epistemological meaning shed on today's design studies and practices. Lastly, since such approach will allow further achievements in the convergence design education, the required training of sociological approach and analysis, reflection that are more "de-centered from design and symmetricalized" shall be explored.

2. The Origin and Background of the Project

It was mostly during the late 2000s and early 2010s that the notion of "convergence" shaped its trend in Korean higher education in design. When you search on the Internet with keywords as "design", "convergence", and also in the Korean language "디자인", "융합" as shown in the title of the theme"Creativity through Convergence" of the 2008 Spring International Design Conference of KSDS, various academic events related to design, publication of academic journals, online design competition pages will appear, of the aforementioned period. The reasons for such trend to take place can be found in the following

three conceptions and change in "memory practices" (Bowker, 2008) in the Korean society. First phenomena were the launching of smart devices which 'look somehow very sophisticated' due to the shock (or fear) of the iPhone (released in the Korean market with about 4 years of gap) and strong establishment of systems and networks related to smart devices, such as "developing Apps."


Figure 1 Official promotional image of Samsung Electronics' Galaxy S (2010, left) and official promotional image of Apple's iPod Touch (2007, right)

Figure 1 shows the official promotional image of Samsung Electronics' *Galaxy S* (2010, left) and official promotional image of Apple's *iPod Touch* (2007, right). There was 3 years of difference in time but the left image shows almost no difference compared to the right. Moreover, the only difference found is that the attitude of showing the image is 'erred'. Through this comparison, we can guess how the advent (or "strike") of the iPhone would have been received by the then-Samsung Electronics developers and their peers in various levels of units' production in Korea, who were rather used to the Catch-up Regime. (Song, 2006) It would have been a new burden and shock which entailed "the sense of crisis" which was absorbed in the previous attitude of self-understanding of the Korean society in various ways, and displaced to "pursuit of another innovation (through new method)".

Secondly, the realization from hindsight that the late-Steve Paul Jobs (1955-2011) had "been able to think in a more comprehensive way after having attended literature and calligraphy classes when he enrolled at Reed College for a while, majoring in philosophy," and that "such practice should be set as example if 'creative talent' should be bred." This view point of business administrative analysis, seeking at the typical post results, has dramatized the first background even more.

Lastly, the book written by biologist Edward. O. Wilson, *Consilience: The Unity of Knowledge* (1998) was translated into Korean as 『통섭: 지식의 대통합』 (2005) and it played a decisive role in serving as the base of methodological perspective and necessity of newly viewing the interactive relation between the (natural) sciences and the humanities in an integrative attitude. (see Figure 2 at below)
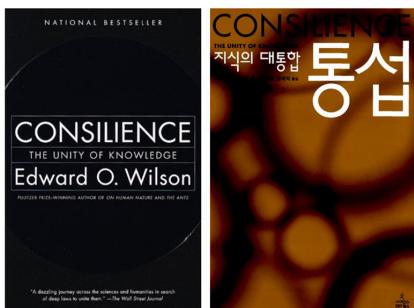
Figure 2 The cover of *Consilience* (1998) (left), and the cover of its translated version in Korean 『통섭』 (2005) (right).

Figure 3 shows us how much the concept of consilience has influenced Korean society at that time. On the banner promoting educative programs of a private academy in the district of Gangnam in Seoul (2015), famous for its excessive drive for university entry exam preparation education, the expression, "Reading and Writing in consilience".

Figure 3 A vestige after the big trend of "consilience"

The aforementioned three phenomena were projected upon the Korean society and its markets compressively, resulting in increasing the expectation (or burden) of achieving impressive results through (more "creative and innovative") multi- or inter- or cross-disciplinary researches. Since 2008, teaming up with nationalism which was one of the engines bringing forth new visions for economic development or creating survival strategies, at the advent of huge international economic decline and with its conditional "diminished expectations" (Krugman, 1994), "new innovation through convergence" became the big issue as same as in the system of design industry and its higher education fields of universities. However, the conception and realization of such ideas have shown once again, following the footsteps of the familiar thinking of "strengthening national competitiveness through design business," that is, the wealth of nation through design management development as common belief on the long durée. Such image is made concrete at various levels of Korean design education, research, and institutional transition.

3. The Operation of the Project, Memories and Reactions on Fields

The Project of KIDP consists of "developing education materials that enable the students to widely access studies such as engineering, business administration, consumer science, design so that top level human resources could be trained" and of "supporting practical courses to create specialized designers with integrated approach." (KIDP, 2009) Beginning with 8 universities including Seoul National University, Korea Advanced Institute of Science and

Technology (KAIST), Hongik University, and Yonsei University (Wonju Campus) in 2009, 17 universities including Dong-A University, Hanseo University, Jeju National Univeristy, Inje University, Korea Polytechnic University were designated as Convergence Design College until 2016 and 2017 (the support for all of these universities have been no longer valid).After being designated, every entity receives from the range of 1 hundred million to 3 hundred million Won (85 – 250 thousands USD) during the period of 5 years.

And the themes were selected by KIDP gradually changed their focus from general engineering studies related themes (for example, industrial engineering, mechanical engineering, etc.) to those related to oceanography, apparel study, pharmacology, Korean historical study, public health, tourism, and themes which emphasize local specificity and its context. The Convergence Design Colleges financed by KIDP, manage the program by inducing students to register for convergence design courses by conferring certificates of convergence design program, supporting them with grant and short-term training programs. The respective programs have abstract titles such as "Global Integrated Design" (Seoul National University), "Global Sensitivity Convergence" (Hanseo University), "Global Industrial Convergence Design" (Korea Polytechnic University), "Convergence Design" (Ewha Womans University), and some titles point out the local specificity of each, such as "Green Tourism Convergence" (Jeju National University), "Eco Culture Convergence Design" (Yonsei University in Wonju), "Healthcare Service Design" (Inje University). As all these titles emphasize "convergence" and "design," the programs seem to orient toward typically futuristic and more or less ambiguous content, covering all elements and expertise.

The common notable understanding shown in the major guidelines and promotional documents of the Project distributed by KIDP (2013a, 2013b, 2012, 2009), induced those movements, was on "the approach of perceiving design as a field of engineering (rather than art) or from the aspect of convergence between engineering science and art." Through this approach, the idea is to pursue "convergence of sensibility and technology, in the hopes of accelerating the speed of economic growth." In the Korean society where the members are often caught up in the perception of Catch-up Regime, there is a constant conceptual framing such as "since the '(Western) developed countries' have been already doing this, 'we' also have to follow that path/need that too to catch 'them' up." The cases of "developed countries of design" performed by the convergence design education programs were of College of Engineering, Design and Physical Sciences at Brunel University London (in UK), d.school at Stanford University, Design Science Program at University of Michigan, MIT Media Lab (in US), International Design Business Management Programme at Aalto University (in Finland), Integrated Product Design programme at Delft University of Technology (in Netherlands). (KIDP, 2013a)

Meanwhile, the reception and reaction from the participants in the program operated in the units selected by the Project of KIDP, turned out to be very different from the original goal of "design." The majority of the reactions from the program "focused convergence with the field of engineering" was 'fatigue' and 'confusion,' and 'doubt.' Since the professional level aspired through exploring possibilities of new discussion and experiment was not quite achieved, the reactions were mainly as follows: "I don't get what the 'essence' of design the design students are talking about." or "I don't understand what the design professors or students are talking about when they refer to engineering." (anonymous undergraduate engineering student,

participant of 2010 convergence program at Seoul National University) or "I don't know what the design 'different from the design(engineering)' which the engineering students expect." (anonymous undergraduate design student, participant of 2013 convergence program in a university in Seoul)

As Bowker & Star (2000) had noted about the problem of classifying, sometimes people do not believe in the given distinction of categories, nevertheless, they would use them to communicate with each other, and the situation and perception of the surrounding events become more and more unclear and hollow. This kind of experience was commonly observed among the participants.

The aforementioned reactions were entailed from the following questions designed to measure the knowledge level and the manner of communication of the members of each field, and to verify the co-constructivity of converged knowledge:
- What was interesting for you on the program?
- Why do you think so?
- How is it different from what you already knew?
- Is there a theme which you would want to work on, based on this experience?
Existing concepts and forms, principles of technologies, and knowledge appeared during the process of forming new local context, that is, team work or team creativity. Such local context was formed by the encounter of generalized expertise and experience. The aforementioned questions were designed to observe the drive of creating new concepts and curiosity in the process of understanding collectively and repeatedly, such existing concepts, etc. Furthermore, to evaluate the group of professors who played a major role in setting the quality of convergence education, the following questionnaire was answered:
- Is there any difference that you find after convergence design education took place?
- How did the lecture leading group guide their students about the realization of convergence and the method of creating related results?
Probably due to the fatigue and disappointment which formed the majority of their memory, the answers to these questions were generally gloomy and skeptical. The following answers convey the atmosphere felt across the sites:
- The professor asks us to create something new and creative on and on, but I don't really get it. I felt that he was the one who had no idea what convergence was about. It was interesting at first when we were assigned to mimic the idea meeting of design consulting firm like *IDEO*, but the method of presenting "final output" as your assignment was exactly the same as previous lectures. My friend who is a design student told me that this method was not different from existing lectures at all. (anonymous undergraduate design student, participant of 2013 convergence program in a university in Seoul)
- I was at a loss when there were several special lectures delivered by iPhone specialist nothing but as an early adopter, business administration professor, etc., and then the professor asks you to "create design focused result of convergence since you must have learned something out of those special lectures". And the worst part was when the professor kept on asking us to discover "our precious oriental values that we have forgot." I don't know what this is at all. Is it some sort of mysticism, or what? (anonymous undergraduate design student, participant of 2010 convergence program at Seoul National University)
- After giving us theoretical lessons like 'Brain storming is important. You must have this in

mind', the professor evaluates our ideas based on her authority and past experience. So in order to get good grades, one needs to match the professor's level. But the professor didn't seem to understand our new ideas. It even seemed as if she didn't like it because it was too difficult for her. All the ideas the students came up with were understood by the professor as she pleased, so everything became banal in the end. (anonymous business student who enrolled for the convergence design education program out of curiosity, participant of 2012 convergence program in a university in Seoul)

- It was extremely strange when the professor generalized the idea that engineering students lack artistic or aesthetic sense who aspire to such sense and that design students are somewhat more creative and idiosyncratic, thus engineering students have something to learn from them. But we have our own criteria and knowledge. Engineers are greatly practical and creative. And the world is built through engineering, isn't it? There exist things that shouldn't change or cannot change due to the results of complex networking, but the professor was ignorant of the reality in ignoring such condition and asking us to simply 'innovate.' It is sure that he doesn't have any idea about the network effects among technologies, standards and culture at all. (anonymous engineering student, participant of 2010 convergence program in a university in Seoul)

   As such, the field reactions observed of students or consumer of the convergence design education could be summarized into quasi-scepticism about "unilateral method of communication of the convergence manual that they call successful which gave the impression of an event promotion." Perhaps, this proves the state of the educators who design the program of convergence design who act in their familiar way of practising their authority rather than realize actual convergence. It's because they revealed the tendency of putting forth "the expertise of a field" of which the substance is black-boxed, due to the situation of the field which directly reflected their old "knowledge" on the classification of fields of certain social product. Hence, non-design students who study other fields acting as social background enabling the existence of design, have the impression that "their identity and expertise judgments, and the resulting decisions have all become ambiguous" and they began to dislike even the trial of convergence. The most impressive reaction is the following:

 "It would have been much better if we – engineering students – did it ourselves."

This is a good example of understanding how some old notions and memories structuralize some tangible and intangible fields through their own system of classification and how influences to the process and way of task executions, environments and ontological conditions of task performers. (see Bowker, 2008) In the Koreanized convergence design education, this lead to ignorance and authority, which entailed rigidity of human-actors of the "lower class", and finally to obedience to the system and authority in which they feel the most safe and familiar with. The primary factors that have hampered the prosperity of convergence and its generalization were grown by the system which dreamt of success through convergence, and by the design education field which aspired to achieve new results with old-fashioned attitudes with no reflection and intelligence to follow such system.

4. Problems and Limitations, How to Overcome?

The problems of disbelief, doubt and fatigue displayed by the participants are internal issues of the design education field which is also linked to the non-existence of contemplations on "performativity and its meaning of the individual fields, including design and its education, divided by the previous criteria of classification." These problems could be obvious results obtained when you 'mix and see what happens' to 'establish the convergence system.' When the definitions of roles or attitudes of mutual understanding of different fields are excessively simplified and schematized, such consequence is often expected. Before delving into this point, the following considerations should be mentioned.

First, KIDP was the affiliated organization of the Ministry of Knowledge Economy ("지식경제부" in the Korean language), launched by the Ministry of Commerce Industry and Energy ("산업자원부"), which was abolished in 2008 and it is currently the affiliated organization of Ministry of Trade, Industry and Energy ("산업통상자원부"). As being such an organization, we can assume that KIDP was under the pressure of producing any output that is visible in figures, through investment of R&D budget. Second, most Korean design colleges only have meager budget to develop new education programs which promise sustainability and connectivity in future programs, thus they feel the need to be submissive toward the education programs supported by KIDP, on the administrative level. These considerations are taken into account while this paper criticizes various points. Moreover, the most direct victims of such phenomena were the students who hover in anxiety and fatigue, with the fear of long term recession, lower quality of labor market and low employment rate.

In order to make improvements which reflect the actual field environment on where the convergence happened, we need an approach enabling the participants to view more correctly the "context" of what is the issue, why and how such issue comes to being. That is, the required elements (or condition) are the consideration on the authority "gifts" (Mauss, 1990[1925]) of assessing different situations for each field and its delegation, design as planning and perception which emphasize observation and reflection in the process of establishing performativity. For such requirement to be met, the approach revealing the (re) action and influence of the typical dichotomy of "engineering for engineering's sake, business for business' sake, design for design's sake" should be taken. The participants should be guided to enhance their abilities in observation and thinking, from multiple aspects of object and theme.

Furthermore, the attitude of sociological research should be enhanced in the field of design education to constantly discover and interpret the context and memories of mutual common ground and disparity. Such attempt and effort, and the allegation of related change of view are not superficial or ideal. As a sociologist, Latour (1983) presents in excellence how the scientists' laboratories, home to the studies on the principles of nature and the ways to deal with it, came to construct social network. In his study, Latour notes that our lack of observation comes from the old habit of thinking: "We all see laboratories but we ignore their construction, much like the Victorians who watched kids crawling all over the place, but repressed the vision of sex as the cause of this proliferation."

The case of lowering the possibility of creating convergence which could be realized due

to customary and institutional approach toward innovation is due to not being able to see what is now on t/here. (Obviously, this viewpoint is difficult to find in the existing catch-up tendency and attitude, as it is beyond the realm of knowledge which was never taught before.) In order to form organizations realizing new ideas and to induce new experiments of convergence along with concrete results through these entities, sociological and anthropological insight and intelligence are required in a greater level.

Figure 4 at below is a conceptual diagram of sociological convergence design researches which observe the process of attempt in converging design and engineering and analyzes the conceptualizing attitude of mutual resemblance and disparity. This figure is made based on the work of Latour (1993) which proposes way of thinking to overcome dichotomy in the thinking process. The participants in convergence will work on conceptual translation with the approaches of sociological research, to achieve better understanding and practicing for objectifying.
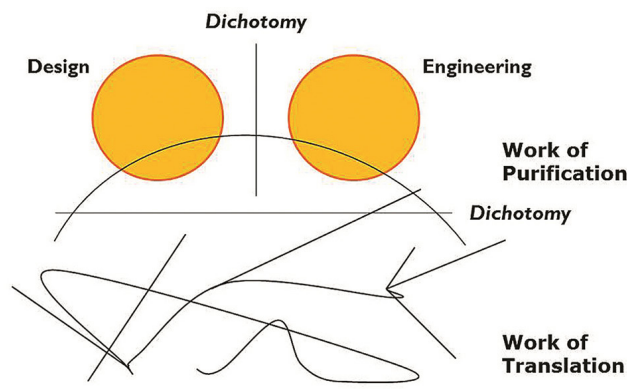

Figure 4 Conceptual and Social Networks for Convergence

5. Conclusion

The Project supported by KIDP is the reflection of the trend in mid-late 2000s of the concept of "convergence" in Korea, in attempt of preparing the basis of design education program adapted to Korean environment, which breaks down the walls between different fields (considering cases of Western developed countries), but the result is deemed somewhat incomplete until present. Although the traces of desire for convergence at the institutional level have remained in several names in many of the Korean design colleges. This is due to the lack of understanding and contemplation on the attitude in which "boundaries" act as social production. (Star & Griesemer, 1989) This, however, does not mean the failure of design. Rather, the (ideal) authority of expert design that transcends administrative procedures might have been further bolstered instead of being diminished. It is because the (expected) design was not achieved yet. Thanks to this resulting characteristic of design (as plan and scheme), design is turned into a pure ideal (or chimera) of aspiration. It is because a door will open up for the (need for) pursuit of what is "creative, better and innovative". We

can also note that the actor in society who captures and utilizes this operational mechanism of design will be able to wield power as a result. (Min, 2015)

This paper has sought to analyze the project from sociological aspect. In order to verify that design is certainly a social product, the following Q&A's will be examined: Where could we find "trend"? In the "society". Where does "innovation of it" come from? From the "societies" such as schools, companies, institutes, research labs, design studios, etc. where some authorized groups as "society" analyzes characters, conditions, structures and objects of other "societies". If so, where could we find the objective of design and determination of theme? It is once again the "society" where they or we have been coined (or forged) and pursued. (see Hacking, 1986)

Through design researches on such "society and its socializing" we can help understand the social values of "outside of design" where interest in design is sprouting. Furthermore, it will play an important role in grasping the relation between design and "society". It is because many social relations are penetrated into the process of performing measures of any specialized field, through process of convergence (or politics) of "feedback" and "information modification". Therefore, diversifying the observing ways of understanding the mechanism of design convergence enables us to see how the demands of "society", "culture" and "economy" are being realized in the final production of design. This would allow Korean design education to its overcome - now seems to be somewhat strange - long standing excessive "design romanticism" and "design omnipotence" (see Hong, 2002[1999]), the rupture of the ideas, reflections and exchange enabled those unreal romanticism and omnipotence, the excessive adherence to business administration and user/consumer discourses, blind faith in methodologies, superficial understanding of expertise in other fields and to build a platform of balanced and creative view on design, designers and their/our societies where they/we belong. This paper is an attempt of striking such symmetry, in hope of contributing in the progress of design convergence. And, the development of these lines of this research has been left to the near future stage of the "social" work.

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