Research Paper

A Discussion on Creativity and Design Education In Singapore and Malaysia

Dr. Benny Lim[1]

Lecturer Department of Cultural and Religious Studies, Chinese University of Hong Kong.

ABSTRACT: *Many Southeast Asian nations are looking at design as their main focus in the creation and generation of creative outputs. Singapore may have been on the top of the list in different indexes relating to innovation and creative outputs, such the Global Innovation Index and Creative Productivity Index, but the evidences seem to suggest that Singapore is still lacking in the software aspect – the sense of creativity in its people. From a Southeast Asian perspective, Malaysia also seems to also rank relatively high up on these indexes. But in actual fact, the gap between Singapore and Malaysia on a global scale is still fairly huge. Design thinking is about thinking of ways to respond to the needs of the people. At this point, there are only two design programmes in Singapore and Malaysia that emphasize the importance of design thinking. Design education in in these two countries is still focusing on the training of technical skills in design as a means to solve problems. These challenges in education are not impossible to overcome. Education providers should actively look at how they can rework their current design syllabus to include design thinking capabilities. Several top universities are releasing their teaching material for free to the public. Coursera, a social enterprise in partnership with Stanford University, allows people to sign up for free courses on design thinking to upgrade themselves.*

I.   CREATIVITY AND INNOVATION IN SOUTHEAST ASIA

The terms *Creativity* and *Innovation* are often used interchangeably. In actual fact, there are some crucial differences between the two. Most dictionaries define the term *creativity* as the ability to think of new ideas and to make new things. Some dictionaries define *innovation* in the same light. In the book *Innovation in Cultural Systems: Contributions from Evolutionary Anthropology*, the authors highlighted that the key problem of such a definition to innovation lies in the lack of information on how an innovation can be identified and recognized. Such a definition also fails to provide any information on the origin of the innovation (O'Brien &Shennan, 2010). Another book, *Leader behaviors and the work environment for creativity: Perceived leader support*, provides a good framework to differentiating creativity and innovation. It depicts "*creativity as the creation of new and useful ideas in any discipline, and innovation as the successful implementation of the creative ideas*" (Amabile*et al.,* 2003).

In other words, creativity cannot be quantified but innovation can be measured in terms of output. The 7th edition of the Global Innovation Index (GII), published by Cornell University, INSEAD and World Intellectual Property Organization, was recently launched in Australia in July 2014[i]. The index is highly regarded as a reliable source of reference to understanding and comparing innovation levels and outputs of different countries, using a methodology of five input and two output pillars. These seven pillars are further broken down into 81 different indicators, making the assessment a sophisticated and comprehensive one. The ranking of the top 25 has not changed much over the years. It could be observed that the more advanced economies are doing better in the terms of their innovation outputs. This could be attributed to these countries having a more developed infrastructure, education system, research and development process, and technological

progress. With the exception of Singapore, who is on the 7th place, no Southeast Asian nation is within the top 25 economies in innovation output. Malaysia ranks 2[nd](33rd in the world) and Thailand ranks 3rd in Southeast Asia and number 48 in the world. The rest of the Southeast Asian nations rank in the bottom half of the index. It does not come as a surprise as I have, in an earlier publication, discussed the relatively late development of the creative industries in Southeast Asia, with Singapore, who is the only developed economy in the region, taking the lead back in 2002. Other Southeast Asian nations only looked into the development of their creative industries within the last decade (Lim, 2014).

According to the GII report, Singapore is ranked at the 7th position mainly due to the excellence of the country's business and market sophistication as well as the high quality of human capital, infrastructure and research. However, Singapore performs poorly in terms of government expenditure in education, domestic trademarks application and the printing and publishing output. One interesting observation of Singapore's results is its excellent in human capital despite the low government expenditure in education. The rigidness and the lack of diversity of theeducation system has focused on creating a productive workforce but it does not look at a holistic education that respond to the needs of different people. The education system in Singapore trains students to be good in examination(Mooney &Nowacki, 2013) but fails to develop and instill creativity, which is a competitive edge that enhances employability (Florida, 2012). This is further supported by the lack of domestic trademarks application and publishing outputs in Singapore.The case of Singapore can serve as a crucial criticism of the GII. Due to the extensive number of measurable indicators in the evaluation of the innovation outputs, the index tends to overlook the importance of the countries' attempt in providing a creative environmentin the society. This is also evident Hong Kong, and although both Singapore and Hong Kong are within the top ten in the world in terms of innovation, creativity is not a widespread trait in their residents. A month after the GII report, the Asian Development Bank and the Economic Intelligence Unit released the Creative Productivity Index (CPI) in August 2014, which measures the creative capacities of a country's economy by looking at its creative inputs and outputs[ii]. The index focuses on Asian economies (with USA and Finland included as a comparison) and looks at efficiency – how effective economies have turned their inputs into viable ouputs.

To the surprise of many, Laos tops the list in Southeast Asia, ahead of Singapore and Malaysia, and fare better than Asian nations such as China and India. The outcome is fascinating because Laos has only looked into developing its creative industries in 2012. Laos also did not fair well in both its inputs and outputs ranking but if we look closely into the criteria of this index, which is on efficiency, Laos has been effective in generating creative outputs despite the low inputs. The case of Singapore is the complete opposite. Despite being the economy with the best inputs on the index, Singapore's creative outputs fall behind a number of other economies in Asia.The lack of efficiency in Singapore can be attributed to the lack of a creative population once again. Indonesia ranks 3rd in Southeast Asia on the CPI while Malaysia is ranked 4th. Again, it does not mean that Indonesia's creative inputs and outputs outperform that of Malaysia's. Rather, Indonesia has been more effective in churning the creative inputs into outputs.

Richard Florida, who is the Professor and Head of the Martin Prosperity Institute at the University of Toronto, has written extensively on the concept of the *Creative Class*. According to Florida,

> "*Globally, a third of the workers in advanced industrial nations are employed in the creative sector, engaged in science and engineering, research and development, and the technology-based industries, in arts, music, culture, and aesthetic and design work, or in the knowledge-based professions of health care, finance, and law. This creative sector accounts for nearly half of all wage and salary income in the United States—as much as the manufacturing and service sectors combined.*"

> (Florida, 2005)

Florida also argued that a city that is more open to homosexuals (whoare part of the creative class by the way) are more likely to experience stronger economic growth. While it is not an attempt to directly equate the number of homosexuals to economic growth, Florida indicates that a more open society is one that is more creative and diverse and therefore, is likely to experience better growth (Florida, 2003). Southeast Asia, in general, is a more conservative region. According to The Global Divide on Homosexuality 2013 by Pew Research Centre[iii], with the exception of the Philippines, majority of Southeast Asian nations, particularly Malaysia and Indonesia, are not inclined to accept homosexuality. The discussion on diversity is also evident in Charles Landry's claim on the *Creative City*. According to Landry, creative cities are cities that encourage creativity and innovation in their urban development policies. Apart from that, a creative city also considers creativity in its external and internal environment. One other key characteristic of a creative city is in its long

term planning and provision for creative change to happen in all aspects of the society and all levels of economic enterprises (Landry, 2008). Landry also introduced the Creative City Index, which is an ongoing research to measure the imaginative pulse of cities[iv]. The results, displayed in percentage, are based on how close the cities are to a perfect creative city. At this stage, a total of 17 cities have been assessed and Taipei, being the only Asian city assessed, barely scored past the border mark of 50%. Though Taiwan has been included as part of China in the GII, the reports (both 2013 and 2014) have clearly identified specific success stories in Taiwan and it is surmise to say that Taiwan, if assessed on a standalone basis, would have performed above that of China. Despite so, China's rankingon the GII, which considers Taiwan's performance, is above the rest of the Southeast Asian nations other than Singapore. The CPI assessed Taipei separately and by referring to the creative inputs and outputs index separately, again, Taipei performed ahead of the rest of Southeast Asian nations other than Singapore. These evidences suggest that, other than Singapore, the rest of Southeast Asian nations should score lower than Taipei in the Creative City Index.

II.   DESIGN EDUCATION IN SINGAPORE AND MALAYSIA

Singapore may have been on top of the list in different indexes but the evidences so far seem to suggest that Singapore is still lacking in the software aspect – the very sense of creativity in its people. From an education perspective, design is not a new discipline in Singapore. There are a number of institutions of higher learning offering courses in design. They include, LASALLE College of the Arts and Nanyang Academy of Fine Arts, where design is their largest faculty. These institutions offer skills based programmes in various aspects of design. Graduates of these programmes are expected to be competent in their design capabilities as well as communicating messages effectively through their designs.There is also a growing number of academic programmesof design in full fledge universities. Nanyang Technological University offers programmes on Product Design and Visual Communication[v]. The Singapore University of Technology and Design focuses more on the collaboration of engineering and design. The National University of Singapore (NUS) has aprogramme on Industrial Design. This is the only design programme in Singapore that clearly indicates their intention to prepare their graduates to be effective problem solver and to discover unmet needs. Hence, courses such as design thinking and other business disciplines are included this programme[vi]. Currently, there are no regulatory bodies that regulate the development of design programmes in Singapore. Education providers are given the freedom to research and develop suitable programmes for their institutions.

If we were to just compare Southeast Asian nations, Malaysia seems to be relatively high up on the indexes. However, this is not the case whenwe compare the full rankingof both the GII and CPI. In fact, the gap between Singapore and Malaysia is fairly huge. As discussed, it is also likely that Malaysia will not exceed Taipei on the Creative City Index. On design education, Malaysia has also got quite a number of institutions of higher learningwith design courses. Quite unlike Singapore, some of these institutions focus solely on design education such as The One Academy, Raffles Design Institute, Dasein Academy of Arts, Malaysia Institute of Arts etc. On top of that, many full fledge universities in Malaysia also offer homegrown design programmes. The Malaysian Qualifications Agency (MQA) is the main body in Malaysia that accredits programmes and qualifications of the institutions of higher education[vii]. Since its formation in 2007, MQA has released a series of quality assurance documents, including programme standards documents of specific disciplines. A programme standards document provides regulatory guidelines on how the curriculum of a specific discipline should be developed. It also details the learning outcomes, assessments, entry requirements, academic staff requirements, facilities and resources as well as leadership and governance requirements. Institutions who are keen to launch a programme in a specific field should refer and adhere to the programme standards. MQA launched the programme standards for design in 2011[viii]. Upon reviewing the problem standards, one will be notice the strict differentiation of different types of design, with specific set of course requirements. For instance, there are specific subjects that must be included in a graphic design programme, and this differs from a product design programme. Another observation is that the courses are very skills oriented. Take industrial design for example, courses are focused on drawing, model development and rendering techniques. Education has always played an important role for Malaysian designers as majority of them first acquired their design skills in schools. Due to the skills oriented curriculum stipulated by MQA, many of these graduates, or designers, are equipped with excellent design capabilities. They can sketch, draw, use design software, and build prototypes effectively. They have also got great aesthetic sense in their designs. However, these designers are not trained and not given the opportunity to to react to the needs of the society and identify new trends and possibilities. Although management and basic marketing has also been included as a requirement by MQA in all types of design, many institutions have only included the necessary skills for graduates to manage and promote their design projects. It is no surprise that many of these graduates end up in roles where they design according to a set of given instructions.

While many institutions in Malaysia are still focusing on training the necessary design skills for specific types of designs, one institution stands out differently. KDU University College has taken the lead in responding to the creative industries and economy by developing the first ever Diploma in Entrepreneurial Design programme[ix]. The programme offers a variety of courses training students in three main capacities – design skills, design thinking and entrepreneurship. Design skills involved the actual technical capabilities in designing. For this programme, students are exposed to a range of computer applications in design, from 2D to 3D (still and moving images) as well as scripting and coding of web applications. Courses such as *Exhibition Design*, *Packaging Design* and *Photography* are also included to build up the students' design skills. In the area of design thinking, students are exposed to courses such *Sustainable Design*, which explores the importance of design in considering commercial and social factors. Other courses relevant to design thinking include *Strategic Thinking with Branding*, *Cognitive Processes and Problem Solving*, *Creative Strategy* and *Design Culture.* These courses prepare students in applying design thinking in the creation of viable design outputs. The programme also offers a variety of courses in the area of entrepreneurship. For instance, students are required to take up courses in *Enterprise Skills*, *Entrepreneurial Communication* and Thinking and *Design and Business Management*. These courses prepare students to have an entrepreneurial mindset. Combining these three main capacities, the Diploma in Entrepreneurial Design aims to develop students to become successful designers with entrepreneurial capabilities. The programme took in the first intake of students in January 2014.

III.   DESIGN THINKING – THE WAY FORWARD?

"Designers often think of themselves as problem-solvers rather than problem-finders. Successful design outcomes, however, come from a deep understand of the problem requiring solution, even to the extent of reframing the problem itself. The most successful designers attempt to uncover the assumptions in a given statement of a problem, and to explore news ways of thinking about the problem itself."

(Chick &Micklethwaite, 2011)

Chulangkorn University's Assistant Professor Ser Shaw Hong, who is a Malaysian and has taught design for more a decade, shared in an interview that most of the institutions of higher learning in Singapore and Malaysia teach design as a means to solve problems, and there is a clear lack of design programmes emphasizing on the importance of creative strategies, enterprising skills and entrepreneurial capabilities. As highlighted so far, there are only two design programmes in Singapore and Malaysia that emphasize the importance of design thinking. KDU's Entrepreneurial Design programme is fairly new and they have yet to have their first batch of graduates. Although the design programme in NUS has a longer history, it only focuses on one aspect of design – industrial design. So, what is design thinking exactly and what can be done from an education perspective? According to Tim Brown, President and CEO of IDEO, *"Design thinking is a human-centered approach to innovation that draws from the designer's toolkit to integrate the needs of people, the possibilities of technology, and the requirements for business success."*[x]

Several scholars have written about the evolution of design thinking. In all these writings, there seem to be one common line of argument – design thinking, today, is responding to the postmodern condition. Here, I attempt to discuss three approaches in looking at this phenomenon. From a cultural approach, design thinking is breaking the boundaries of cultural limitations, in fact, from cross/ multi-culturalto pastiche.Wendy Wong, an associate professor from Australia's Swinburne University of Technology, attempted to expand theories in design thinking from a three-order perspective, drawing influences from Barthes' *Rhetoric of an Image*. She described the third order as the *Transnational Design Approach*, which suggest internationalized and globalized visual styles consisting of literal visual representations that can be freely interpreted by the viewers, who have different cultural backgrounds and may have different levels of cultural understanding. The shallowness of cultural signification in design thinking leads us to this second approach of self-reflexivity. Design thinking is no longer aiming towards solving problems or responding to needs of the masses, but of collective individuals or niches. In other words, design thinking is moving towards individualization (Cui, 2010). Lastly, we can approach this from a semantics perspective. Design thinking has, for a long time, toyed with the idea of experimentation - changing the look and feel of the creative output. Mobile phones are becoming smaller; chairs are redesigned to be more comfortable for the spine. In its response to postmodernism, design thinking is looking beyond experimentation to breaking the linear meanings or functions of the design outputs. A smartphone, for instance, is commonly being described as a phone. But many people used it in other ways more than it being a phone. The smartphone, though known as a phone, is also a camera, an online chat device, a social media device or even torchlight. This resonates withReynerBanham's achievement in shifting design thinking towards *"a post-modernist one of product semantics with forms and images rich in meaning and association."* (Whiteley, 2003)

Design thinking has its fair share of criticisms, especially its qualitative and 'gut-feel' methodologies. This is also the reason why I have avoided the discussion of design thinking beyond the context of designers and design education. In my opinion, there are four different categories of designers. There are designers who are duly employed and receive a monthly income.There are also the freelance designers, who are self-employed and take on design jobs by a range of clients. The transaction is mostly a top-down approach, whereby the instructions are laid down by the clients to the freelance designers.In recent years, there is a growing trend of designers in both Singapore and Malaysia who are going independent and creating their own brands. Unlike freelance designers, independent designers prefer to realize their creative ideas, rather than taking instructions. This is particularly evident in the fashion world where many of these 'fashion frontiers' are creating their own clothing labels (English &Pomazan, 2010). The brands created by these independent fashion designers are usually considered non-mainstream (Aspers, 2010). There is an up and coming fourth group of designers, perhaps less evident in Singapore and Malaysia at this stage, whom I call *designpreneurs* (designer + entrepreneur). They differ from independent designers as these groups of designers actively identify and respond to new needs and even generate new demands of their design outputs. They may be running big companies but the CEO is very much the key designer as well.

> "*We are entering the era of the "design entrepreneur." The combination of right-brain skill sets coupled with these trends are shifting industry, economic, and social landscapes. This entrepreneurial mindset is empowering the next generation of designers to have more options and diversity in their careers.*"

(Traitler, Coleman & Hofmann, 2014)

Enterpreneurial capabilities are about business acumen, strategic thinking, and leadership capabilities (Cohen, 2007). People tend to think that independent designers and designpreneurshave very small customer base (Aspers, 2010) and this is certainly not the best career prospect. However, if we look how the world has become more connected and 'smaller' due to the rise of technology and the social media (Reich, 2011), the challenge is not about dealing with a small customer base. Rather, it is about having an entrepreneurial mind-set. An designer with good design thinking will be able see business potentials, develop new markets, generate effective business plans, engage in market research, identify competitive advantages of their brands, conduct risk management, and make decisions. At this point, one may ask – why should designers participate in the business? More often than not, designers cannot afford to hire business managers, and even if a business graduate is willing to collaborate, he/ she lacks the contextual knowledge of design and its industry. Designers, who are the generator of these products, should be aware of the business environment so that they can respond to the market forces accordingly. Design thinking is about thinking of ways to respond to the needs of the people (Brown, 2009). This further reiterates why designers should be actively involved in their own businesses. On the other hand, designers should play an active role to react and respond to the everyday needs of the people. Designers should constantly ask themselves, "How can my designs change and affect people's lives?" One such example is Roy Soetantio[xi], a *designpreneur* who has made use of design thinking to solve problems and satisfy unmet needs. With the rise in the popularity of smartphones and mobile applications, there are new trends for graphic designers to supply customized themes for the phones and tablets, or to design the user interface for the applications. Soetantio is an Indonesian based in Malaysia and received his design education in Singapore and Italy. Between 2011 and 2013, Soetantiodesigned a series of customized themes for mobile phones and tablets that are not only aesthetically pleasing but also improves the user experience of accessing and using the applications. On top of that, he made high quality videos to introduce his designs as part of the marketing strategies. The end result - the designs were commercially viable, got rave reviews and were well received by users internationally.

III. CONCLUSION

Many Southeast Asian nations are looking at design as their main focus in the creation and generation of creative outputs. Commercial viability and the creation of intellectual properties are key objectives of the creative industries (Karataş-Özkan&Chell, 2010). From a design perspective, the end product (intellectual property) must have a demand that can generate revenue. With the recognition of the creative industries and its impact toon the economy, the role of designers should be reconsidered. Besides designing according to instructions, designers should strive to respond to the creative industries by creating viable design outputs that can eventually become a successful brand. However, the common trend of design education in both Singapore and Malaysia is still focusing on the training of design skills as a means to solve problems.Education providers should actively look at how they can rework their current design syllabus to include design thinking capabilities.For designers who have left education and entered the workforce, several top universities are releasing their teaching material for free to the public. Coursera, a social enterprise in partnership with Stanford

University, allows people to sign up for free courses to upgrade themselves (Voci, 2013). Unlike school-based education, learners who take courses from Coursera do not earn any credits. For these designers, earning credits is not a priority. Hence, this is a wonderful opportunity as they can continue to create and build their brand as they learn online. In 2013, Coursera launched the course *Design Thinking for Business Innovation* offered by the University of Virginia. The course discussed the processes involved in design thinking and examined its application in a real-life situation. For designers who want to upgrade of their capabilities by learning coding and web applications development, Coursera recently offered a course *Web Application Architectures* offered by The University of New Mexico.There is also a whole suite of entrepreneurship courses from several renowned business schools on Coursera. Designers can choose the right course according to their own needs and availability.

REFERENCES

[1]. Amabile, T.M. *et al.*(2003). *Leader Behaviors and the Work Environment for Creativity: Perceived Leader Support*. Division of Research, Harvard Business School.
[2]. Aspers, P. (2010). *Orderly Fashion: A Sociology of Markets*. Princeton University Press.
[3]. Brown, T. (2009). *Change by Design*. HarperCollins.
[4]. Chick, A. &Micklethwaite, P. (2011).*Design for Sustainable Change: How Design and Designers Can Drive the Sustainability Agenda*. AVA Publishing.
[5]. Cohen, E. (2007). *Leadership Without Borders: Successful Strategies from World-Class Leaders*. John Wiley & Sons.
[6]. Cui, L.P. (2010). *The Evolution of Design Thinking in the Visual Culture Era*.Packaging Engineering, 2010, *Issue 24*: 142-145. Print.
[7]. English, B. &Pomazan, L. (2010). *Australian Fashion Unstitched: The Last 60 Years*. Cambridge University Press.
[8]. Florida, R. (2003). *The Rise of the Creative Class: And How It's Transforming Work, Leisure, Community and Everyday Life*. Turtleback Books.
[9]. Florida, R. (2005). *Cities and the Creative Class*.Psychology Press.
[10]. Florida, R. (2012).*The Rise of the Creative Class: Revisited.* Basic Books.
[11]. Karataş-Özkan, M. &Chell, E. (2010). *Nascent Entrepreneurship and Learning*. Edward Elgar Publishing.
[12]. Landry, C. (2008). *The Creative City* (2nded.). Earthscan.
[13]. Lim, B. (2014). *An Education in Entertainment – Possible Trends in Southeast Asia*. Journal of Arts and Humanities.*Vol. 3(2)*: 73-77. Print.
[14]. Mooney, T.B., Nowacki, M. (2013).*Aquinas, Education and the East*.Springer Science & Business Media.
[15]. 'Brien, M.J., Shennan, S. (2010). *Innovation in Cultural Systems: Contributions from Evolutionary Anthropology.* MIT Press.
[16]. Reich, B. (2011). *Shift and Reset: Strategies for Addressing Serious Issues in a Connected Society*. John Wiley & Sons.
[17]. Traitler, H., Coleman, B & Hofmann, K. (2014).*Food Industry Design, Technology and Innovation*. John Wiley & Sons.
[18.]. Voci, E. (2013). *Creating the Work You Love: A Guide to Finding Your Right Livelihood*. eBookIt.com.
[19]. Whiteley, N. (2004). *ReynerBanham: Historian of the Immediate Future*. MIT Press.

NOTES

[i]Refer to Global Innovation Index 2014 website: https://www.globalinnovationindex.org/content.aspx?page=GII-Home
[ii] For the full document from Asian Development Bank, refer to http://www.adb.org/sites/default/files/pub/2014/creative-productivity-index.pdf
[iii]Refer to Pew Research website: http://www.pewglobal.org/2013/06/04/the-global-divide-on-homosexuality/
[iv]Refer to Charles Landry's website on the Creative City Index: http://charleslandry.com/contact/join-in-the-creative-cities-index/
[v]Refer to Nanyang Technological University's School of Art, Design and Media website:
http://www.adm.ntu.edu.sg/Programmes/Undergraduate/Pages/Home.aspx
[vi]Refer to National University of Singapore's Division of Industrial Design website: http://did.nus.edu.sg/
[vii]Refer to MQA website: www.mqa.gov.my.
[viii]Refer to the programme standards for Art and Design via this link:
http://www.mqa.gov.my/portal2012/garispanduan/ART_Final%20BI%2029022012.pdf
[ix]Read more about the Diploma in Entrepreneurial Design via this link: http://www.kdu.edu.my/school-of-communication-creative-arts/23-diploma-in-entrepreneurial-design
[x]Under more about IDEO's concept of design thinking: http://www.ideo.com/about/
[xi] Visit Roy Soetantio's website: www.roychang.net