

A New Educational Model to Foster Innovation in China:
The DeTao Masters' Academy (DTMA)

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The Context

In March 2017 University World News¹ reported that China was stepping up its drive to lure overseas talent in its bid to become an innovation economy. This latest effort is focused both on reversing brain-drain by bringing Chinese scholars from the diaspora back to China and also on retaining foreign students to work in China after getting their degrees. Whether because of this drive or for other reasons, the proportion of students returning to China from study in the US has increased from 72% in 2012 to 82% in 2016.

A similar aspiration to attract talent to China and boost innovation led to the establishment of the DeTao Masters' Academy – DTMA - in 2010. Its emergence should also be seen within the broader context of trends in Chinese higher education and theories of innovation in the first decade of the 21st century. Four are noteworthy.

First, DTMA was founded by the Beijing Higher Education Zone Development as a spin-off from the construction of the Beijing Shahe University Town. University Towns were appearing throughout China, partly in response to the massification of enrolments through which China became the world's biggest higher education system in the 2000s. Hundreds of university towns were developed in both urban and rural areas as part of a government policy of urbanization.²

Second, the DTMA initiative reflected another government policy, the Chinese National Outline of Education Reform 2010 – 2020, which aims at increasing the competitive edge of Chinese higher education through world-class universities, but also by focusing on innovation and talent:

“A new framework shall be provided to rally the efforts of higher educational institutions, research institutes, industries and enterprises in fostering talents or professionals (...) The building of world-class and high-level universities shall pick up speed, so as to cultivate top-notch innovators and world-class disciplines, achieve original results at advanced level in the world, and contribute to the effort to raise the nation's comprehensive strength.”

Third, the timing of DTMA's creation was much influenced by the Shanghai Expo in 2010. Some of DeTao's first Masters were recruited from among the leading architects of national pavilions (e.g. Israel, New Zealand, Austria, Denmark) at the Expo, which some saw as a symbol of China's opening to the world and even as a harbinger of a more liberal country. These early Masters still figure among those most

¹ <http://www.universityworldnews.com/article.php?story=20170316161911243>)

² <http://www.sciencedirect.com/science/article/pii/S0197397514001283>

engaged in teaching for DTMA. DTMA reflected the outward-looking spirit of the Expo and vacillation in later government attitudes to foreign influence may explain a certain hesitancy in DTMA's subsequent development.

Fourth, DTMA adopted an unusually holistic approach to the role of Masters in the innovation process and linked their work closely to the development of Chinese industry. As an early document put it: "‘Master’ signifies social respect for professional experts, who are recognised as individual commanders in their respective domains. Masters possess tacit know-how that can neither be codified into tangible knowledge, nor recorded in any software or hardware. Their tacit know-how represents judgemental wisdom accumulated through years of practical experiences, and can only be demonstrated in the context of problem solving and decision making". It followed from this that: "the tacit nature of a Master's know-how requires an immersive, simultaneous and interactive process of problem solving in which followers can soak themselves in the decision making context and comprehend the nuances as well as the holism behind the judgements of the Masters"³.

Disclaimer – Roles of the Authors

DeTao recruited the present authors with its first cohort of Masters in 2011. Whereas most of the early Masters came from disciplines related to the creative industries and were expected to promote innovation in those industries, we were recruited for our expertise in higher education, notably in quality assurance and distance learning. As we shall see, DTMA exists outside the formal Chinese higher education structure but wishes to be recognized for its quality and innovation by that system as well as for its close association with industry. Furthermore, although most of DTMA's work involves face-to-face interaction between Masters and students, it also has ambitions to use online technologies to take the expertise of its Masters to a wider public.

Indeed, most DeTao Masters focus on teaching their disciplines and sharing their expertise through consultancies with Chinese industry. As Education Masters, however, we have also worked on the institutional development of DeTao as an innovative education provider. In this context, we have had in-depth discussions with DeTao chairman George Lee during our many visits to China and have been able to follow DeTao's development and the evolution of the chairman's thinking fairly closely.

Notwithstanding this privileged access to DeTao's senior management, however, we are only too well aware of the gaps in our knowledge as we attempt to describe DTMA's education model. A major weakness is that we have very little information on the financial aspects of the model, and cannot compare income and expenditure. Similarly, our knowledge of the political environment in which DTMA has evolved is partial at best. The following description of DTMA's education model and our judgements about its development should be read against that background.

The Concept

³ Beijing DeTao Masters Academy, Beijing, 2010

The initial aim of DTMA was described as follows:

“Our aspiration is to build a global network of masters and apprentices along with the mega trend of globalization of knowledge media, humanity and cultural heritage.”

To contribute to this drive towards a knowledge society, George Lee, the CEO of the Beijing Higher Education Zone Development company that built Shahe Town, sought to create a ‘global university’ with academic teaching staff - highly distinguished in their disciplines – from the best universities abroad. He labelled them ‘Masters’ adding: ‘Having laid out our basic premises, we now look at the DeTao Masters’ Academy as a new model that aims to blend tradition and innovation to foster cultural and economic progress in China.’

Soon after its establishment in April 2010, DTMA signed agreements with over thirty Masters from twenty countries and various industries. Further experts from various fields including media communication, engineering, industrial design, economics and sciences were recruited from the United States, Canada, Europe, Japan, and China itself, including outstanding academics from the Chinese diaspora who had made their names abroad.

Lee’s ambition was to create a unique pool of global talent, beginning with Visual Arts and Media, associated with the Shanghai Institute of Visual Arts (SIVA), which had been part of Fudan University but had recently become an independent institution. His concept was that world-leading authorities, his ‘Masters’ would, through ‘immersive experiences’, pass on their ‘tacit knowledge’ to senior apprentices, already in senior positions in Chinese industry, who would then act as bridges to larger Chinese audiences of students and experts.

At first, many thought the project unrealistic. Indeed, several current Masters admit that when they received the e-mail invitation to join DeTao they were tempted to dismiss it as “spam”. However, scepticism soon gave way to enthusiasm.

The authors of this article are privileged to have been involved in the various phases of DTMA’s evolution from the beginning to the present day. In 2011, we conducted video interviews with a number of Masters in the Visual Arts, Architecture and Media. We were infected by the enthusiasm of these Masters and came to share their excitement and ambitions.

Despite their diverse origins and backgrounds, combined with strong individuality, the trait of multi-disciplinarity united these early Masters. We observed this in their academic backgrounds, how they approached their professional work and in their enthusiasm for passing on their tacit knowledge to their senior apprentices in China.

A second common feature was that many of the Masters were using new technologies in diverse ways in both their professional work and also in their teaching.

Third, all Masters had a palpable enthusiasm for sharing and “clustering” their expertise and talent. This began early and spontaneously in the fascinating knowledge

creation process that we witnessed at SIVA. At first the senior officers of DTMA appeared almost to discourage this cross-disciplinary cooperation, treating each Master and their ‘studio’ as a distinct entity. These studios, large spaces designed and expensively furnished to the specifications and tastes of each Master, are a combination of teaching space, exhibition area and workspace for collaboration with industry. At first these Master-studio units were treated by management as the basic units of the DTMA organisational structure. However, DTMA gradually came to see that synergy and collaboration between these units could be a great asset to the organisation they had created. The Masters greatly appreciated the resources invested in them and the autonomy they were given to define their activities.

One Master considered the opportunity offered by DeTao as ‘a dream come true’ (Nathan Wang, Master of Music, from California), another as ‘the epicentre of an earthquake in architecture’ (Matias del Campo, Austria). Haim Dotan, an architect and poet (Israel/USA), viewed it as a unique opportunity to build ecological cities. He later became famous by designing the Zhangjiajie glass bridge that opened in August 2016 and instantly became a world attraction. Timothy Jacob Jensen, son of renowned Danish designer Jacob Jansen, is famous for streamlining form language playing between light and darkness. He places Scandinavian values – honest, caring, and peaceful - at the heart of his designs that include a large variety of products from watches to coffins! He is both an artist and a businessman.

DTMA Evolves

The new building at SIVA for DeTao’s Creative Industries Cluster was officially completed in 2015. From the original handful of Masters, the DeTao network had now grown to a community of over 500 Masters in a range of disciplines. Their levels of engagement vary widely: some making their studios vibrant workplaces with close links to industry and taking up residence in China; others visiting only occasionally to give lectures or workshops.

After 2011, DTMA’s educational model evolved away from the initial Master-Senior Apprentice concept quite quickly. The original concept could not be made to work for two main reasons. First, the senior apprentices that DeTao wished to target were already in high positions in their industries and did not have the time to step aside from their jobs for substantial periods. Second, some were sceptical of DeTao as a new organization with strong overseas input and may not have had the language skills to benefit from working with foreign experts, however distinguished.

Today, DTMA’s teaching activity is centred on a close partnership with SIVA, where it offers enriched majors to highly selected cohorts of students. These programmes are designed and implemented under the guidance of a small number of DeTao’s Masters. In all, DTMA has developed three types of teaching endeavours: the SIVA-DeTao Advanced Programme; O+O (Online and Onsite) Learning; and Industrial Training. We shall concentrate mainly on the SIVA-DeTao Advanced Programme, which has now been through a complete cycle of activity, and then comment more briefly on the other programmes.

The SIVA-DeTao Advanced Programme began recruitment in 2013. The first two majors were *Strategic Design and Innovation* and *Creative Animation* and their first cohorts of students will graduate in June 2017. In 2014, eight additional majors were opened: *Product Design (Sustainable Furniture Design)*; *Visual Communication Design (Branding, Identity and Public Space)*; *Performance (Spanish Guitar)*; *Cultural Industry Management (Brand Strategy and Management)*; *Environment Design (Ecological Architecture Design)*; *Environment Design (Themed Environmental Design)*; *Fashion and Apparel Design (Fashion, Knitwear, Sportswear Design)* and *Art and Technology (Technoetic Arts)*.

In 2017, there was a total of 684 students enrolled in the Advanced Programme and the first cohort of 40 students is due to graduate in June 2017. In addition to the SIVA Bachelor's degree, they will receive a DeTao Certificate of Completion signed by their respective Masters. Later iterations of these programmes may also include digital badges that are under development.

International Recognition

For DTMA, as an alternative provider of higher learning that is not part of China's formal higher education system, getting international recognition was an early imperative. However, a few years had to pass for the educational model to mature and for students to pass through the courses before such recognition could be sought.

Meanwhile the US-based Council for Higher Education Accreditation had developed, through its International Quality Group (CHEA/CIQG), a "Quality Platform". As a form of external quality review of non-traditional, innovative providers, it seemed a particularly appropriate mechanism through which DTMA could gain international recognition.

The Quality Platform is an assessment of quality designed to serve a newly emerging sector of higher education with offerings from private companies and other organizations that are now available alongside those of traditional colleges and universities. The primary intent of the Quality Platform is to assure and improve quality as enrolments grow in this new sector. It is an outcomes-based review using standards established by the Platform. It requires a self-evaluation by the provider followed by an external expert review. Successful providers are designated as "Quality Platform Providers" by CHEA/CIQG for a three-year period.⁴

The primary focus of the Quality Platform is the articulation and achievement of learning outcomes, which is rather a new concept for quality assurance in China. Illustrating that the learning offered by the provider is at post-secondary education level is another important requirement as are possibilities for transfer of credits and transparency of information.

⁴ <http://www.chea.org/userfiles/uploads/Quality%20Platform%20-%20Summary%20Doc.pdf>

DeTao asked for its Advanced Programme to be a pilot for a Quality Platform review in April 2015. Following the submission of the self-review there was a visit by external assessors, who had an opportunity to see students' work and interview various stakeholders. In the light of their report CHEA/CIQG granted DeTao the status of a "Quality Platform Provider" in December 2015. This designation will figure on the certificates issued as a supplement to the SIVA degrees awarded at graduation.

The successful granting of the CHEA/CIQG Quality Platform status was based on several determining factors. The curriculum outlines for the Advanced Programme courses are mainly designed by DeTao Masters and include a market survey in the relevant industry to justify the need for the class and the objectives/goals of the programme. From these are derived the learning outcomes; a teaching plan; a course description and evaluation; a course outline; student admission and selection requirements; the grading system; and pointers to career prospects.

The curriculum, including learning outcomes is developed by one or more Masters, while the courses are taught by by a team of teaching staff. They aim for a learning environment that is student-centred and inquiry-friendly. The Advanced Programme courses are practical in nature, reflecting close ties with industry, and most adopt a project-based approach. Group work enables students to share their skills and different cultural perspectives in achieving the learning outcomes.

An important question is whether DeTao's original emphasis on the transfer of tacit knowledge through immersive experiences has carried over into the Advanced Programme courses. Although undergraduate students are less able than experienced professionals to understand the nuances of tacit knowledge, we observe that the intensive work that they do in the studios, under the watchful presence of Masters or their assistants, does more to incorporate this emphasis on tacit knowledge into their learning than would usually be the case in other undergraduate courses in these areas.

Continuous evaluation of students through portfolios, yearbooks and workbooks supports the assessment of learning outcomes. Assessment is underpinned by assessment criteria and a clear and transparent approach to grading. Students get feedback on how well they achieved the learning outcomes and, in their turn, provide written evaluations of the learning process.

The Advanced Programme meets post-secondary level education expectations – another requirement of the Quality Platform review - because its courses are used as elements of SIVA's four-year degree programmes. Therefore, the Advanced Programme is approved by SIVA and meets its standards. SIVA's own curricula are based on the bachelor's degree-level standards for four-year undergraduate programmes set by the Chinese Ministry of Education and are approved by the Shanghai Education Commission. Feedback from teaching staff with international teaching and examination experience, as well as from industry and working students, showed that the programmes are at postsecondary level. Mandatory market surveys ensure that industry demand for the outcomes of the courses has been considered.

Credit transfer and transparency are still a work in progress. The information described above is shared with parents, students and direct stakeholders but has not yet been made available more widely. However, the Advanced Programme model is now being implemented with another university in Wuhan and further partnerships are planned.

Given DeTao's unusual profile and teaching style, there are few institutions to which it can be compared. However, the vast and distinguished experience of industry and academe that DeTao Masters bring to their work facilitates both formal and informal benchmarking in developing curricula and assessing students.

The Quality Platform review process itself helped considerably in articulating and framing the DTMA educational model. The external review panel shared some recommendations for the purpose of DeTao's continuous improvement which are worth mentioning in this context.

They believed that creating a wider shared understanding of the concepts and of the terminologies used would promote consistency in formulating student learning outcomes. They felt that this could be done without imposing a standardized approach that might reduce the current degrees of flexibility and academic autonomy that the Masters enjoy.

Introducing opportunities for the sharing of experiences across the Masters' studios, among Masters, programme coordinators and teachers seemed like a good way of increasing support to Masters and their teaching teams as they developed their own different teaching and learning styles.

This opportunity was one of the major assets of the initial DTMA concept as described earlier. Nevertheless, even today this particularly beneficial and enriching collaboration is being implemented on an *ad hoc* and voluntary basis, through the initiatives of individual Masters, rather than as an integral part of an institutional strategy.

Taking DeTao Online

Although the DeTao model has always placed great importance on intensive face-to-face contacts for learning and teaching between Masters and apprentices/students, an awareness of the potential of online technologies for taking DeTao's rich intellectual resources to a wider Chinese and international audience was present from the beginning. Indeed, one of the earliest De Tao meetings that the authors attended in 2011 focused on such applications of information technology and led later to the creation of DTMA's Knowledge Media Institute (a name consciously borrowed from the UK Open University) as a focus for these activities.

However, in those early years DTMA had to concentrate on finding a viable model for its face-to-face teaching activities. As noted, these evolved over a two-year period from an attempt to attract senior apprentices to the current strategy of teaching enriched majors to SIVA undergraduates. Getting this partnership programme with SIVA to its current state of success and recognition absorbed nearly all the time of the

small number of Masters engaged in developing the Advanced Programme. Only in 2015 did DTMA begin to draw on the expertise of its Masters to begin developing online offerings.

These forays into online learning took two forms, MOOCs and online courses intended for delivery on conventional campuses. In both cases this is still a work in progress.

DTMA's first attempt at creating MOOCs followed an agreement with the prestigious Peking University (PKU) that had enabled many DeTao Masters, including the authors, to give guest lectures on the PKU campus. By 2014, when offering MOOCs had become a fashionable trend in higher education, PKU wanted to develop some MOOCs and signed a partnership with DTMA for this purpose. DTMA invested significant funds in this enterprise in the expectation that, through some of its Masters, it would be thoroughly involved in developing these MOOCs. This never happened because PKU decided to create the MOOCs with its own staff. In the event, the PKU MOOCs were not very successful, largely because regular Chinese students at PKU saw little point in taking courses that did not yield credit towards their degrees.

DTMA's second venture into MOOCs was a partnership with the UK-based MOOC provider FutureLearn. Its first course, *Taoism and Western Culture*, was offered early in 2017 and a second is in preparation. It is too early to say whether the partnership with FutureLearn will be a significant element in DTMA's online strategy. Meanwhile, a partnership with the Beijing Open University, which was explored in the early days and soon abandoned, is now again under discussion.

At the same time DTMA has invested greater effort in an online teaching initiative that it calls O+O (Online & Onsite). The O+O concept is that DTMA produces quality online teaching material that can be sold to Chinese universities for their teachers to use in their own courses on campus. This approach was pioneered by one of DTMA's senior Masters, Yan Jin, whose discipline is Process Design. His course has now been offered in a number of Chinese universities and more O+O courses are in preparation by other Masters. It is too early to say whether this model will 'take off'. The concept of the O+O teaching model is that the Master develops the online version of the course while the teaching staff at the participating university adapt the offline version to their needs, using it as a model, a sample, an inspiration, open to development, interpretation and customizing.

The main challenge for O+O is to get Chinese universities to buy and use DTMA's online material. The primary obstacle is the 'not-invented-here' attitude that has always limited the take-up of distance and online learning materials from outside sources by universities in all countries. In this respect, Master Yan Jin was in a particularly favourable situation because he had an extensive network of close colleagues, many of them former graduate students, across the Chinese university system. This condition would not apply to O+O courses developed by Masters without such networks. However, the key aspect of the approach that allows faculty at

the receiving university to adapt and revise the DTMA online material, rather as if it were an Open Educational Resource, should reduce ‘not-invented-here’ attitudes.

DeTao is a for-profit company and its ventures into online teaching and learning require business models that will generate net income. For MOOCs, which are offered free, this is a challenge for universities worldwide. Many justify the expense of producing MOOCs in the hope that they will act as a recruiting tool for their fee-paying courses, either on campus or online, but this is not relevant to DTMA, whose Advanced Programme limits enrolment and is fully subscribed. On the other hand, while the O+O courses have, in principle, a viable business model, it only works if other universities buy the online teaching material for use by their own teachers.

In summary, DTMA is still finding its way into the world of online teaching. The present authors feel that it has devoted too much effort to building its own online teaching platform rather than using one of the many platforms available – both proprietary and open source – and concentrating on creating good online learning materials. Until DeTao gives its online work a more central place in its overall strategy it is unlikely to make much headway in this increasingly competitive field.

Industrial Training

We shall say little about the third area of DTMA’s teaching, industrial training, because it is the most recent addition to its offer and therefore the least developed. DTMA has significant potential to engage successfully in industrial training given its basic purpose of enhancing innovation in Chinese industry by drawing on the wisdom and knowledge of its Masters. Moreover, especially at advanced level, DTMA’s emphasis on the transfer of tacit knowledge may come into its own in such industrial training. Many of these Masters, beyond those already engaged in DTMA’s teaching activities, are top experts in their fields (e.g. industrial designers who hold the prestigious ‘Red Spot’ award; internationally recognized architects, etc.)

Here again, the challenge is to create linkages with Chinese industries and to prove DTMA’s value to them as a resource for training at various levels. Since many DTMA Masters are already working as consultants to a variety of Chinese enterprises creating such linkages should be relatively straightforward. As DTMA develops its online offerings it may find that short web-based courses are very attractive to industry given the reputations of the Masters for innovation in their areas.

Looking to the Future

We have described how DTMA has created a new model for higher education in symbiosis with China’s traditional university structures. The essence of the model is to bring distinguished experts from all over the world to provide enriched tracks to selected cohorts of students within the frameworks of conventional degree programmes in the visual and creative arts and technologies. The SIVA-DeTao Advanced Programme has been exceptionally well received by students, parents, industry and partner institutions. The programme began in partnership with SIVA and is now being extended to higher education institutions beyond Shanghai.

A key question for the future concerns the scalability of this model. How far can the impact of the scarce resource of DeTao's Masters be extended by training local Chinese experts to offer the DeTao Advanced Programme of comparable quality in a sustainable way? A second and related question is whether online technologies can be used to extend the reach of DeTao's Masters by providing online resources for use in conventional campus settings (the O+O model) and in industry. It is too early to answer this question because the online platform is still a work in progress and the interest of Chinese universities in buying such resources has yet to be tested in a variety of disciplines.

The international assessment of the SIVA-DeTao Advanced Programme highlighted the excellent quality of the content and teaching with its basis in marketing surveys in industry and the primacy of student learning outcomes. In this respect DTMA is an important pioneer in the development of Chinese higher education through its demonstration of flexible, student-centred learning with a focus on project work related to the practical application of the subject matter. The students are extremely fortunate to study in programmes designed and supervised by experts with the international eminence of the DeTao Masters. They are likely to absorb from these Masters some of the tacit knowledge and understanding of real-world contexts that is essential for achieving holistic innovation in their areas of work. We believe that this model is relevant to the development of teaching and learning in higher education worldwide.