

Business Schools + Ecosystems = ?

By
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Rising Model of “3I” Circles



Innovation and entrepreneurship are widely regarded as the important basis for sustainable competitive advantage by enhancing capabilities for business growth, creating employment opportunities, increasing productivity and promoting national economic development (M. M. Crossan and M. Apaydin, 'A multi-dimensional framework of organisational innovation' in *Journal of Management Studies*, 2010, 47(6), 1154-1191; A. O'Connor, 'A conceptual framework for entrepreneurship education policy' in *Journal of Business Venturing*, 2013, 28, 546-563), especially in a rapidly changing international business environment. In the last two decades, innovation and entrepreneurship education has become part of the core DNA of Chinese business schools, especially in very dynamic economic areas such as Shanghai and Hangzhou

Along with China's economic "new normal," Premier Li Keqiang of China introduced the concept of 'Mass Entrepreneurship and Innovation' at the 2014 World Economic Forum in Davos, and innovation and entrepreneurship were then officially defined as an important part of national policy in 2015. Despite the uncertainties brought by COVID-19 and the resulting global economic recession, China has managed to stabilise its economy and achieved a quick recovery, and the hundreds of millions of market entities with strong resilience have played a fundamental role in this process. Since the key to successful entrepreneurship is innovative talent, Chinese central and provincial-level governments expect college students, people with high quality and ability, to serve as a strong reserve force of entrepreneurial activity. In keeping with the government mandate, universities across the country have created new schools dedicated to innovation, with names such as 'School of Innovation,' 'School of Innovation and Entrepreneurship,' or 'School of Entrepreneurship and Management,' both within and outside existing business schools. Based on the observations and survey of innovation and entrepreneurship education conducted by leading business schools or other schools of higher education in Shanghai and Hangzhou, both located in the Yangtze River Delta, this article incorporates the key lessons into a model of "3I" circles: an interdisciplinary circle within the university, an inter-organisational circle in the surrounding business ecosystem, and an international circle of open collaboration systems.

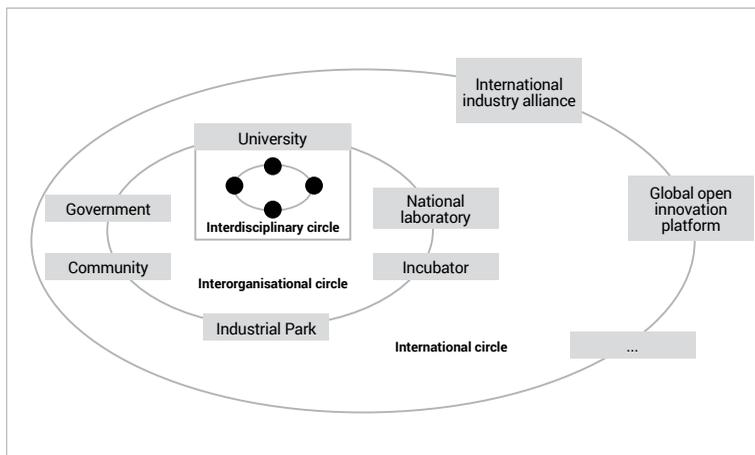


Figure 1 Model of "3I" circles in innovation and entrepreneurship education

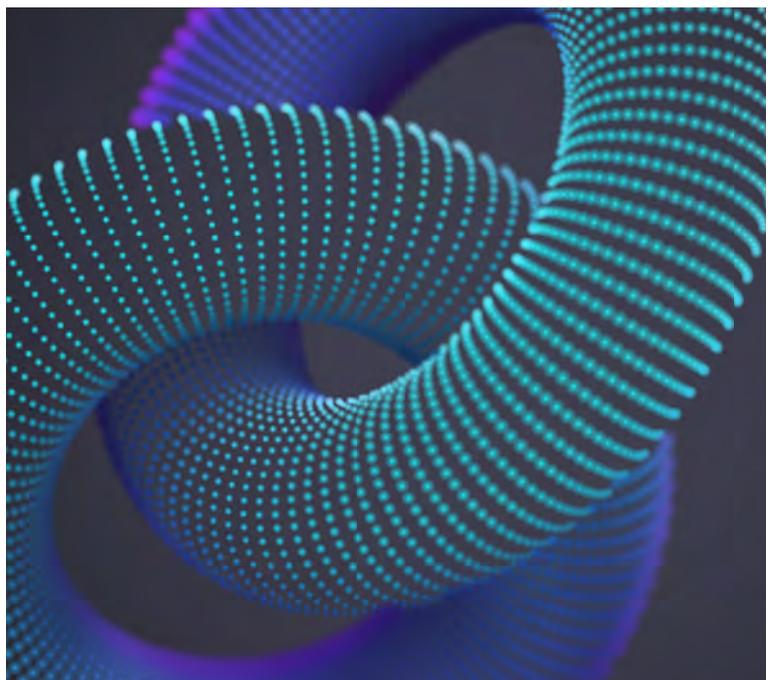
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Interdisciplinary circle within the university

While new venture opportunities exist within nearly all academic disciplines (e.g., graphic arts, computer science, mechanical engineering), the majority of entrepreneurship initiatives at U.S. colleges and universities are offered by business schools for business students (F. O. Ede, B. Panigrahi & S. E. Calcich, 'African American students' attitudes toward entrepreneurship education'. *Journal of Education for Business*, 1998, 73, 291-296). In fact, entrepreneurial learning is marked by the training in the areas of creativity, curiosity, and application of knowledge and skills to solve real-world problems or utilise the opportunities that ideally lead to innovation and new venture creation (M. C. Draycott, D. Rae, & K. Vause, 'The assessment of enterprise education in the secondary education sector: A new approach?' *Education + Training*, 2011, 53(8/9), 673-691), in which interdisciplinarity could bring together different areas of knowledge and studies together to work on a specific problem (A. F. Repko, Repko, *Interdisciplinary Research: Process and Theory*, 2011, Sage).

The first noticeable trend is the renewed attention and trend toward "general education" (通识教育). Institutions such as Zhejiang University, Shanghai Jiaotong University, Fudan University, and Shanghai University of Finance and Economics (to name just a few) have liberal arts programmes designed to give students a strong foundation in critical thinking as well as to broaden their mind for innovation and entrepreneurship, which are especially aimed at students whose academic background is not business.

The second trend is the establishment of interdisciplinary platforms for non-business students, such as the *Intensive Training Program of Innovation and Entrepreneurship (ITP)* at Zhejiang University, established in 1999. While interdisciplinarity is not new at the higher education level, such practices of entrepreneurship education well support innovation based on the diverse mixture of individuals from different disciplines who can work together to develop a product or take



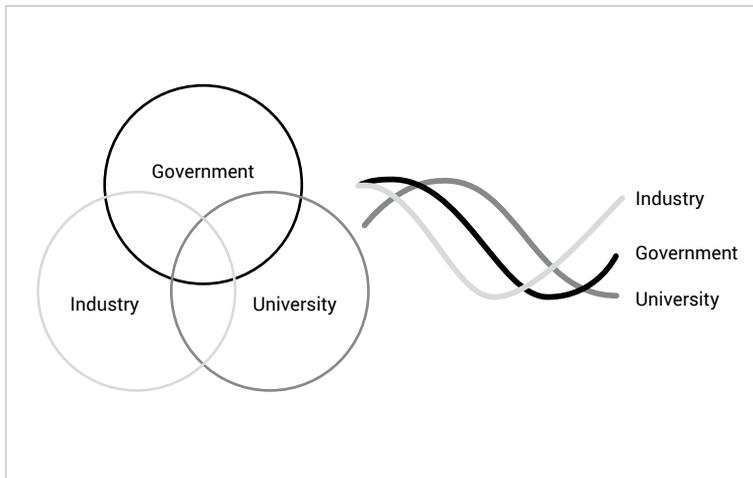


Figure 2 The Triple-helix model in innovation and entrepreneurship education

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128

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on multiple tasks in a start-up. Through selecting 40-60 undergraduates from various majors in the university annually, the curriculum is designed to encourage innovation-based entrepreneurship. Until now, more than 1000 new generation entrepreneurs with science or engineering backgrounds have graduated from the programme, while 128 companies have been initiated and four of these have advanced to a public listing. With the collaboration and complementarity in such a interdisciplinary circle, the ITP has been widely regarded as a comprehensive entrepreneurship learning program of a university with the earliest establishment, the largest spill-over effect and the highest maturity of any training system in China.

Inter-organisational circle in business ecosystem

Apart from the university itself, governmental agencies are also investing significant efforts in promoting innovative and entrepreneurial activities. Relying on the Shanghai Technology Entrepreneurship Foundation for Graduates (EFG), initiated by the municipal government in 2006, government departments focused on science and technology jointly invest 100 million RMB every

year to support college students' innovation and entrepreneurship training in the form of public equity investment and interest-free debt financing. Candidates have the opportunity to be granted funding ranging from 100,000 RMB to 500,000 RMB to set up enterprises. By the end of 2020, the programme had supported 3,006 undergraduate entrepreneurship projects amounting to a total of nearly 700 million RMB, and a number of excellent undergraduate entrepreneurship enterprises have emerged, such as "Ele. Me", the leading local living platform in China.

Unlike the bilateral relation between universities and government, business ecosystems have become the most important and efficient mechanism of business community engagement and knowledge transfer within the triple helix model of the university-industry-government framework, as observed by the authors in Shanghai and Hangzhou. It mimics the example of other universities located in Europe's entrepreneurial regions: University of Reading and the University of Sussex, both in the UK, can access extensive support for spin-offs and commercialisation of tacit knowledge (M. Belitski, K. Heron. 'Expanding entrepreneurship education ecosystems'. *The Journal of Management Development*, 2017, 36(2), 163-177).

More innovative elements and players can be involved in innovation and entrepreneurship ecosystems. neoBay Global Innovation and Entrepreneurship Community, co-founded by Shanghai JiaoTong University, the Government of the Minhang District, and Shanghai Land Minhong (Group) Co. Ltd, is deeply rooted in the inter-organisational circle for innovation and entrepreneurship education in Shanghai. Through the resources provided by the three partners as well as the alumni, the scientific achievements, the operational support structure, the financial services as well as the policy backing, the incubator assumes the responsibility of forging a cluster of scientific innovation in southern Shanghai, establishing an entire industrial chain of innovation and entrepreneurship.

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International circle of open collaboration systems

The traditional model of innovation involves a shift toward more open and distributed models, while platformisation is also a driving force with the increasing importance of digital platforms as venues for value creation and delivery in the global market (S. Nambisan, D. Siegel, & M. Kenney. 'On open innovation, platforms, and entrepreneurship'. *Strategic Entrepreneurship Journal*, 2018, 12(3), 354-368). International networking in innovation and entrepreneurship education in Shanghai and Hangzhou can be understood as a two-way model, as it both infuses multiple innovative resources into the domestic pool, and also initiates more startups to "go global" by connecting them to resources from the global open business ecosystem.

The Global Entrepreneurship Program (GEP), jointly initiated by Zhejiang University (China), Babson College (USA) and EM Lyon Business School (France) in 2009, is the first joint master's

degree program in the field of entrepreneurship across Asia, North America and Europe, aiming to cultivate successful entrepreneurs and top managers with innovative ability and a global mindset by exposing them to the broader trends around the globe. It provides the classical model for transnational entrepreneurship education and much more.

Under a new round of scientific and technological revolution and industrial transformation, Shanghai aims to promote itself as a science and technology innovation hub with global influence. The Science and Technology Entrepreneurship Center of Shanghai actively utilises key platforms such as the UN-assisted South-South Global Assets and Technology Exchange (SS-GATE), which is the first UN global programme agency headquartered in China, to strengthen cross-border technology transfer, attract foreign research institutions, and promote the global engagement of business start-ups. For overseas





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Although Shanghai and Hangzhou have a diverse and distinct industrial base, in which the former is on a quest to become a global finance centre while Hangzhou’s economic development relies heavily on small and medium-sized enterprises in manufacturing and digital economy, their lessons in innovation and entrepreneurship education show many parallels in the context of the “3I” framework

talent acquisition, the Offshore Innovation and Entrepreneurship Base for Overseas Talent in China (Shanghai) Pilot Free Trade Zone (FTZ) has been positioned to radiate global innovation opportunities so as to attract overseas talent. It also provides incubation spaces for companies that are registered in the FTZ and are operating overseas. Similarly, Haichuang Park in Hangzhou has been set up as an innovation and venture platform for overseas high-level talents, established by the Zhejiang government, and features abundant technological resources, vibrant regulations and systems, convenient public service, and active entrepreneurship and innovative activities.

Although Shanghai and Hangzhou have a diverse and distinct industrial base, in which the former is on a quest to become a global finance centre while Hangzhou’s economic development relies heavily on small and medium-sized enterprises in manufacturing and digital economy, their lessons in innovation and entrepreneurship education show many parallels in the context of the “3I” framework. With digital platforms and open innovation environments unleashing numerous promising opportunities for entrepreneurs, the modes and methods in innovation and entrepreneurship education also keep adapting to this changing environment. With more innovative elements being integrated into the “3I” circles, the synergies and complementarities could make the emerging models in global innovation and entrepreneurship education a powerful influence in driving the ecosystem agenda forward.

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