

# NEW PARADIGMS IN REAL ESTATE EDUCATION

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## ABSTRACT

*This paper traces the development of real estate education over the last few decades. It addresses the different schools of thought on what constitutes real estate education; in particular, the US versus the UK models and the dilemmas facing each model. However, with increasing globalisation and the pervasiveness of information technology, the more fundamental issue facing real estate education today is its relevance to the professions as well as in the new knowledge economy. Both the curricula and the mode of delivery will need to accommodate these changes. New educational paradigms such as life-long learning, problem-based learning, and creative thinking will dictate the development of the real estate curricula. Information technology tools will change the traditional learning environment. To meet the challenges of these changes, both academic institutions as well as professional bodies need to re-examine the type of real estate graduate that will fit the future work place and the education that will give the desired outcome.*

**Keywords:** Real estate education, paradigms, curriculum development.

## INTRODUCTION

Over the last century, a number of technological developments have transformed the world's economy and growth. The steam engine, which triggered the industrial revolution, the wide spread distribution of electricity to industries and homes, the invention of the automobile, telephone, television and the computer were all major developments that transformed our lives. Today, we are undergoing another major transformation with the digital revolution. The rapid convergence of information technology and real-time, broad-band telecommunications is transforming the world. The Internet has entered our everyday vocabulary. As a result of this rapid technological development, the world has become one global environment, with information and capital flowing across boundaries instantaneously. In this environment, new knowledge industries are being created and the traditional industries are harnessing technology to remain competitive.

In the transformation into this new environment or the so-called knowledge-based economy, universities play a critical role in producing graduates who can thrive in a fast-moving competitive and changing environment. The way universities prepare students for the knowledge-based economy must be consistent with and reflect the way graduates will work in the knowledge-based economy. To stay relevant in this

new environment, universities have to re-examine their traditional missions to adapt to an era of greater uncertainty, rapid technological change and globalisation.

This paper examines real estate education in the context of this ever-changing environment. It traces the evolution of real estate education from its beginning to the present state. In the late nineteenth and early twentieth century, real estate education was largely offered by institutions in the UK and the US, which developed along different models. Through this development, certain issues and dilemmas have shaped the curricula of real estate education today. More importantly, the paper discusses the changes that will dictate the future development of the real estate curricula and its mode of delivery. Specifically, it outlines the new paradigms for real estate education in answering the questions of what knowledge and skills should be taught and how should these be taught?

## **EVOLUTION OF REAL ESTATE EDUCATION**

### **Program Development**

Real estate education offered at the universities can be traced as far back as the early twentieth century in the UK and even before the turn of the century in the US. Full-time education for the surveying profession has existed for many years with the establishment of the College of Estate Management, which received its Royal Charter in 1922. The BSc degree in Estate Management from the University of London was obtainable from 1918 through either full-time or part-time study, generally with the aid of the College's correspondence notes. The London degree was supplemented in 1919 by an estate management degree at Cambridge University. For many years, these were the only degrees of their kind until the creation of the Council for National Academic Awards in 1964, which paved the way for development in tertiary education through polytechnics and colleges.

In the US, the first course in real estate at the collegiate level was taught at the University of Wisconsin in 1892. Arthur Mertzke, Director of Education and Research of the National Real Estate Boards (now the National Association of Realtors) observed in 1927 that special training was required for persons entering the real estate business. Some 52 universities and colleges were offering such specialization at that time.

The development of real estate programs at the universities in other countries took place, by and large, since the end of World War II. The commonwealth countries, in particular, introduced degree programs as a natural progression from technician-level and vocational diplomas. The real estate degree in Singapore (offered at the National University of Singapore, NUS) for instance, started in 1968. Real estate degrees were, however, only introduced in the late seventies and early eighties in Australia and New Zealand, although these countries had very established diploma courses in valuation and land economics for a much longer period.

The nineties witnessed significant changes to real estate education at the university level. The UK polytechnics have become universities; demand for university degrees has also increased tremendously as developing countries began to enjoy rapid economic growth. The opening of China in the eighties has also contributed to an insatiable demand for real estate courses as inevitably economic growth brought in

tandem real estate development projects. The increase in demand for real estate education coincided with cuts in university funding in the UK and Australia, which led universities to attract as many full fee paying students from overseas. With increasing globalisation, universities are now marketing their programs internationally. To pave the way for the recognition of foreign degrees, professional bodies have widened their accreditation agenda as well as their mutual reciprocity agreements with each other.

## **Issues and Dilemmas**

The development of real estate degree programs has evolved through two main schools of thought: the UK versus the US model. The traditional UK chartered surveying discipline focuses on five main subject areas: valuation, law, economics, building construction and planning. Although over time, new areas such as management and information technology have been introduced to keep abreast of changes, the five main subject areas have substantially retained their importance. This UK model is primarily premised on the professional skills required of a chartered surveyor as well as his role in the development process. The strength of this is two-fold: the multi-disciplinary approach in ensuring that the graduates obtain the requisite knowledge and skills, and secondly a deeper understanding of the role of the chartered surveyor vis-à-vis the architect, land surveyor, quantity surveyor, engineer and so on. The multi-disciplinary approach also allows the trained chartered surveyor to have an appreciation of the legal and planning framework and even building construction techniques.

In contrast, the US model has developed as a part of business management. Weimer (1956) argues that a more appropriate approach to the teaching of real estate course is that of the business manager or administrator. He stresses that greater emphasis should be given to such topics as the place of the real estate function within the organizational structure of the modern business firm, the relationship between the administration of real estate and other functions performed by the firm and the techniques of analysis which may be used to reach sound managerial decisions involving real estate problems. Dasso (1976) further asserts that the financial management framework is the vehicle best suited for real estate's recognition as a discipline. Similarly, Graaskamp (1976) sees the curriculum for real estate at a major university as being centred in a school of business administration. While the origin of the development of the US model is distinctly different from that of the UK, both share a common multi-disciplinary approach, although the mix of the disciplines may differ.

In between these two schools of thought, real estate degree programs in countries like Singapore and Australia tend to combine some components of the two. For instance, at NUS, the real estate degree shares a common first year with the degree in building, incorporating modules on building construction and land surveying in the curriculum, which is similar to the UK, but different from the US model. It, however, also has a substantial coverage of finance and business management, almost to the same extent as the US real estate programs. In Australia, the property degree programs are offered from business as well as building schools. This eclectic approach has, in fact, become typical of real estate degree programs as universities recognize the changing financial environment.

The development of the real estate programs has also been dogged by the dilemma between technical training versus university education. Given the origin of the programs in polytechnics and technical colleges, especially those in the commonwealth countries, the real estate professions and industry in those days had insisted on competency and professional skills. Real estate education at the university tended towards vocational preparation and away from fields such as liberal arts and pure science, which were the predominant focus of early tertiary institution of learning. This was to ensure that graduates could step into the professional arena after a period of hands-on. However, the emphasis on skills training at the university obscured the importance of university education and had too narrow a focus. The over-emphasis of the technical paradigm could lead to the erosion of the value of university education, which is to provide broad background understanding that forms the ability for critical thought. This issue has remained contentious in some cases and would have a significant impact on the preparation of graduates for the new economy.

Bordering on the debate of technical training versus university education is the deeper issue of whether real estate could be considered as an academic discipline. While real estate education, like law and engineering education, is decidedly professional in orientation, it is generally agreed that unlike law and engineering, it has significantly less recognition as an academic discipline. These could be due to two main reasons: the multi-disciplinary approach of real estate education and its relatively short history. Unlike law and engineering, which are single disciplines that are applied to different fields, real estate education needs to cover a variety of disciplines but applied to the single subject of real estate. This makes it less easily understood as compared to the other professional disciplines. Greater variety means less depth of progress. Diaz (1993) feels that real estate, as science, is an example of a knowledge-seeking discipline lacking the focus of community consensus and therefore characterized by a slowly advancing knowledge base. This slow progress of real estate as a body of knowledge is shared by Epley (1996) who concludes that the area of real estate has not yet progressed through the early stages of evolution of analysis and discussion that would achieve the first level of delineation and consensus of opinion on the real estate body of knowledge.

However, despite the problem of image and recognition, there is consensus on real estate as a discipline that requires tertiary level education. As an applied science, it does serve to improve the community through an understanding of the optimization of real estate as a resource. There is also a slow but steady build up of real estate research that over time will become the body of knowledge. This is happening with the increasing participation at international conferences by real estate academics, researchers and practitioners from all over the world.

### **Current State**

Real estate education is now well-developed and established in universities in many countries. The ongoing maturity of the real estate discipline has seen increased stature and recognition in Australian universities (Newell and Eves, 2000). Real estate programs, offered either locally or jointly with well-established overseas universities, have increased significantly in universities in China. Graduate employment data in Singapore shows that real estate graduates enjoy the highest employment rate after computer science graduates in 1999 (ARC, 2000). All these augur well for the future of real estate education.

However, given the rapid transformation of the “old” to the “new” economy, there is a continuous and imperative need to examine some of the existing paradigms of real estate education. A review of the current state is especially important where the limitations of funding and staffing do not allow for continuous reviews of curricula and the mode of delivery. Furthermore, in cases where entry requirements and the period of candidature are compromised to attract full fee paying students, these can result in real estate graduates who fall short of the standards required by the industry.

In a survey of public and private sector employers of real estate graduates in Singapore, the majority feels that local knowledge is no longer as important as international exposure (Yu, 2000). Employers would prefer graduates with knowledge of international practices, especially the latest trends in the US for example, culled from the curriculum or from spending a semester in a US university on a student exchange program. However, this does not imply that graduates from an overseas institution are better than local graduates. On the contrary, employers generally find graduates who obtained an overseas degree after completing only two years of study not as well prepared as the local graduates who spent four years in the university. Employers also generally prefer graduates who exhibit independence and the ability to express individual views.

## CHANGE AND CHALLENGES

### **Forces of change: technology and globalisation**

Apart from changing expectations of employers, real estate education needs to seriously cater to the continuous changes and the speed of these changes brought by the rapid development in technology and the impact of globalisation. We shall now discuss the change in technology and globalisation and the challenges it poses to the curricula and mode of delivery of real estate education.

Unless one has been stranded on an uninhabited island for the last twenty years, no one can escape from the pervasive influence of information and communication technology. Our lives depend and revolve around technology. Students entering universities are already computer literate and would expect the university environment to be even more technology driven. The question now is not whether there is a need to incorporate IT but how good is the IT strategy of the university. Teo Chee Hian, Singapore’s Minister of Education, says, “Institutions may live or die, according to the (IT) strategy you adopt for your institution. Not all would be right and not all would be wrong. The only strategy that would be absolutely wrong is if you do nothing about it.” (Straits Times, 2001) However, we need to be mindful that good hardware alone does not good education make. Technology is only a tool and it needs to be judiciously adopted and adapted.

The globalisation trend will similarly have an irreversible impact on real estate education. Such impact is evidenced in a postulate in chaos theory that the flapping of a butterfly’s wings in Brazil can lead to a chain of events that causes a tornado in Texas. Even though in reality, the linkage between events may not be so dramatic, it is true that globalisation has made the flow of information and capital so much faster and so much more pervasive that events in one part of the world can indeed precipitate a whole chain of events elsewhere. Real estate curricula must reflect the global market as borders and barriers have no meaning on digital flows.

## Challenges to University Education

While the full impact of technology and globalisation on real estate education may not yet be fully understood, two main challenges have to be met. The first is the explosion of information. Already existing curricula are cramped with modules, which were introduced to cover new developments such as those related to IT and the capital and financial markets. Universities would need to balance the introduction of new modules and subjects while ensuring that the core competencies of the profession are not compromised. The second main challenge is the frequency of the review of the curricula. With increasing pace of change, universities would need to conduct more regular reviews in order to keep abreast of the latest developments. The real estate program at NUS, for instance, has undergone three major reviews in the last ten years as compared with two major reviews in the previous twenty years. However, constant reviews can be unsettling and may result in confusion. There is therefore a need to review to stay relevant while maintaining a clear direction and continuity.

Given the rapid pace of change, educational curricula must be flexible such that it can incorporate new developments and update existing modules easily. Flexibility can be achieved through modularization. Prior to 1994, the real estate curricula at NUS consisted of seven to eight subjects taught in each of the four years of study. These subjects were compulsory and were taught throughout the academic year with one final examination. The structure was rigid and any introduction of new subjects required a curriculum review. Since then, the modular system has been implemented. The academic year is divided into two main semesters with one special term at the end of the second semester. Students normally do five to seven modules in each semester and sit for the examinations at the end of the semester. Of these modules, some are essential and a few would be elective or taken in other faculties. The modular system allows the introduction of new modules either as elective or essential without too much disruption. The restructuring of the subjects into modules allows for flexibility, where parts are considered as essential and others, which may be peripheral, can be reconstituted as electives.

To adapt to change, there is a need to shift from mere impartation of information to understanding of concepts, which would act as a conduit to creativity (Avdiev, 2000). In other words, changing from a teaching to a learning paradigm. In the learning paradigm, the purpose of university education is not to transfer knowledge but to create environments and experiences that bring students to discover and construct knowledge for themselves (Barr and Tagg, 1995). To achieve this, the education system needs to examine not only the method of instruction but also the assessment system. Problem-based learning and project work are ways to encourage students to explore for themselves the solutions to problems. Continuous assessments and open-book examinations can help to discourage learning by rote and force students to learn through understanding.

Besides the need to review curricula and pedagogical paradigms, the development of information and communication technology has also opened up a plethora of methods of delivery. On-line teaching and virtual classrooms have replaced the traditional lecture and tutorial system in some instances. This means that learning can be done outside the confines of the physical classroom and can be done at any time. Virtual learning, however, has its detractors, given that the direct contact between lecturers and students is essential for intellectual development as well as desirable traits.

Besides the possibility of a virtual learning environment, technology can also be harnessed to enhance delivery. From the global viewpoint, technology has created opportunities for offering off-campus learning. Today, university degree programs from all over the world are widely available in most countries and, in many cases, students do not even need to leave their home to obtain a degree.

In meeting the challenges of changing technology and globalisation, it is important to note that these factors are in themselves neutral and it is up to the university to consider how best to incorporate and harness them. Technology, for instance, if used correctly can enhance the delivery. It, however, will not make bad lecturers good nor improve the content of the lectures.

## **REAL ESTATE EDUCATION IN THE NEW ECONOMY**

Real estate education has indeed played an important role in a country's physical and economic development (Lim, 1992). It has provided the necessary professional manpower for the development, use and management of the built environment. The emphasis on technical skills and knowledge in preparing graduates for the profession has helped countries to industrialise and develop their economy. However, in the last decade, the changing environment has precipitated changes in university education. The need for a competent workforce with strong interpersonal skills and a flexible and positive approach able to operate across national boundaries has already been recognized (Haworth et al, 1994). Today, with the transformation to a knowledge-based economy, real estate education would again need to review some of its existing paradigms in order that the graduate of tomorrow will be able to fit into the new environment.

### **What Should Be Taught?**

While the curricula of most universities' real estate degree programs have evolved over time to incorporate changes in the industry, much of the domain knowledge, such as valuation, finance, urban planning, construction technology and management, have remained as it is important for the real estate graduate to be trained in these disciplines. However, in the area of valuation and finance, there has been a growing trend for real estate curricula to incorporate more and more components from the capital and financial markets as real estate investments take on new forms. Indeed, topics such as corporate real estate strategy, property syndication, risk management, asset allocation, securitisation and international property investment are now essential components in real estate curricula (Newell and Eves, 2000). This development is also in part due to the growing threat of kindred professions entering the real estate arena. By including components in finance will help to put real estate graduates on par with their business and finance counterparts.

Besides domain knowledge, real estate curricula should seriously consider the inclusion of subjects outside the areas of specialization. In fact, the growing thought is that generalists, with a good working knowledge of a wide range of business fields and of current affairs are better prepared for change as they will be able to apply knowledge not only in one field of business but across the whole operations of their companies, as technology converges and new synergies between different fields are uncovered. Therefore, apart from the core competencies, real estate curricula should incorporate a set of general educational requirements as well as electives in other

disciplines to give students a broader outlook. The general requirements, similar to those of the American universities, should have a mix of science and arts to give an all round balance. Allowing students to opt for elective modules of their interest will also help to develop their interests outside their specialization. These elective modules may be chosen for purely personal interest and self-development; others, such as languages, could be useful for students who have the intention to work overseas.

The inclusion of general educational requirements and elective modules would naturally mean that the existing curricula need to be reduced, if the length of study were to remain the same. Deciding on the subjects or modules to be reduced or even eliminated is a difficult task. A criterion could be that subjects, which merely impart information or contain information that is easily available and transient, should be considered for reduction. In today's rapidly changing environment, the shelf life of information is becoming shorter. Students should not be taught subjects where the primary purpose is to inform; rather, they should concentrate on the understanding of concepts and principles, which are more enduring.

To further enhance students' outlook, universities should encourage international student exchange programs as well as increase the number of overseas students in their enrolment. Typically, student exchange programs between two universities allow students to spend one semester in the other university with full recognition of the credits gained. Such international exposure will benefit the students, particularly in view of the increasing trend towards globalisation. Increasing the enrolment of foreign students also helps the universities to build their international profile as well as bring diversity to the campus. However, in attracting overseas students, the admission criteria should not be compromised. Universities offering real estate education have attempted to reduce entry barriers to compete for students. These students who end up obtaining their degree after spending two or less years at the university may have achieved their goal in terms of the paper qualification, but very little to show otherwise. University education is more than the mere satisfaction of the required number of credits; it develops the intellectual capacity and other skills such as the ability to express individual views, which needs to be nurtured over time.

### **How Should It Be Taught?**

Apart from the review of the curricula to meet the challenges of the new economy, existing paradigms on teaching need to be changed. Typically, the mode of delivery in most universities consists of lectures or lectures with tutorials. While this may be cost effective and efficient, increasingly an interactive style of teaching and learning needs to be introduced. The emphasis should be on the ability of students to integrate, analyse, innovate, synthesize, communicate, and work together with others from diverse backgrounds and experiences, rather than a one-way communication from the lecturer to the students. In the teaching of real estate, which has real world applications, broad interdisciplinary concepts, active learning, and problem-solving processes should be encouraged (Butler et al, 1998). These will help to develop critical thinking and the ability to define problems and develop realistic solutions to them in real world situations.

The shift from a teaching to a learning paradigm also requires new forms of evaluation and assessment. Examinations, which merely test the ability to remember, are no longer appropriate as these cannot distinguish students who can understand and



think and those who can only regurgitate facts. Individual and group project work involving real world cases is better suited to test students' ability to analyse problems and find solutions. These can substitute examinations as a form of continuous assessment. Furthermore, working in-group helps students to understand the dynamics of team work and instill in them inter-personal skills. Where final examinations should still be retained, the type of questions should focus more on understanding and application. Open book examinations are particularly useful for achieving these objectives. Well-designed questions in an open book setting will discourage lower order skills of recall and replication but will test real understanding and require the demonstration of higher order cognitive skills. Critical and creative thinking skills and the ability to innovate and create knowledge are requisite of university education in the new economy.

The use of technology in teaching can also help to bring diversity to the classroom. With communication tools easily and widely available, classes need not be conducted in the confines of the classroom. The Integrated Virtual Learning Environment at NUS, for instance, allows students to access course materials from anywhere and at any time. Lecturers can also reduce contact time by conducting discussion forums and chat sessions over the net. The online mode of delivery is particularly useful for part-time students who can access the lectures without having to travel to the campus. Besides providing an alternative mode of delivery, technology can also enhance delivery. Lectures can be better illustrated and made more interesting with the help of presentation software. Technology is a tool that must be exploited in delivering university education.

## **CONCLUSION**

The ever-increasing changes brought about by technological advancement and globalisation have ushered in a transformation from the old manufacturing based economy to a new knowledge based economy. The fundamental issue facing real estate education today is its relevance to the professions as well as in the new environment. Academic institutions as well as professional bodies need to re-examine the type of real estate graduate that will fit the future work place and the education that will give the desired outcome. The real estate curricula will need to be flexible, such that it can incorporate new developments and update existing modules easily. There should remain a core of disciplines, which ensure professional competence. The curricula should include other general educational modules, as well as elective modules in disciplines from other faculties. These will help to broaden outlook and equip students with a broad base of knowledge that allow them to apply to changing situations. New educational paradigms such as life-long learning, problem-based learning and creative thinking must form the basis for the conduct of real estate education. Information technology tools must be exploited to enhance delivery and provide diversity.

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