The Future of Management Education
An Initiative of the Australian Business Deans Council

This project is supported by the Australian Government through the Department of Industry.
July 2014
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreword</td>
<td>5</td>
</tr>
<tr>
<td>Executive Summary</td>
<td>6</td>
</tr>
<tr>
<td>1 Introduction</td>
<td>9</td>
</tr>
<tr>
<td>Context and background</td>
<td>9</td>
</tr>
<tr>
<td>Challenges for management education</td>
<td>10</td>
</tr>
<tr>
<td>Technology and change</td>
<td>11</td>
</tr>
<tr>
<td>Engaged scholarship</td>
<td>12</td>
</tr>
<tr>
<td>Seeding the transformation journey – The Future of Management Education</td>
<td>13</td>
</tr>
<tr>
<td>2 The Future of Management Education Initiative</td>
<td>14</td>
</tr>
<tr>
<td>Objectives</td>
<td>14</td>
</tr>
<tr>
<td>Main components of the initiative</td>
<td>14</td>
</tr>
<tr>
<td>Scoping paper</td>
<td>14</td>
</tr>
<tr>
<td>Consultation workshops</td>
<td>15</td>
</tr>
<tr>
<td>Innovative Practice Trials</td>
<td>16</td>
</tr>
<tr>
<td>3 The Innovative Practice Trials</td>
<td>16</td>
</tr>
<tr>
<td>Overview</td>
<td>16</td>
</tr>
<tr>
<td>Judging Panel</td>
<td>16</td>
</tr>
<tr>
<td>Assessment</td>
<td>16</td>
</tr>
<tr>
<td>The Innovative Practice Trials</td>
<td>16</td>
</tr>
<tr>
<td>Additional Projects</td>
<td>17</td>
</tr>
<tr>
<td>4 IPT – Collaboratory to Develop, Prototype and Evaluate a Management Development Curriculum for the World</td>
<td>18</td>
</tr>
<tr>
<td>Introduction</td>
<td>18</td>
</tr>
<tr>
<td>Objectives</td>
<td>18</td>
</tr>
<tr>
<td>Implementation and emerging challenges</td>
<td>18</td>
</tr>
<tr>
<td>The Scenarios</td>
<td>18</td>
</tr>
<tr>
<td>Outcomes as measured against objectives</td>
<td>19</td>
</tr>
<tr>
<td>Lessons learned</td>
<td>19</td>
</tr>
<tr>
<td>The IPT contribution to management education</td>
<td>19</td>
</tr>
<tr>
<td>5 IPT – Trialling Two Paradigms of Industry Partnered Management Education</td>
<td>20</td>
</tr>
<tr>
<td>Introduction</td>
<td>20</td>
</tr>
<tr>
<td>Objectives</td>
<td>20</td>
</tr>
<tr>
<td>Methodology</td>
<td>21</td>
</tr>
<tr>
<td>Implementation and emerging challenges</td>
<td>21</td>
</tr>
<tr>
<td>Outcomes as measured against objectives</td>
<td>22</td>
</tr>
<tr>
<td>Lessons learned</td>
<td>22</td>
</tr>
<tr>
<td>The IPT contribution to management education</td>
<td>24</td>
</tr>
<tr>
<td>6 IPT – Developing Managerial Skills for the Complex Inter-disciplinary Interface: Management Education as an Experiential Living Laboratory</td>
<td>25</td>
</tr>
<tr>
<td>Objectives</td>
<td>25</td>
</tr>
<tr>
<td>Methodology</td>
<td>25</td>
</tr>
<tr>
<td>Implementation and emerging challenges</td>
<td>25</td>
</tr>
<tr>
<td>Outcomes measured against objectives</td>
<td>26</td>
</tr>
<tr>
<td>Lessons learned</td>
<td>26</td>
</tr>
<tr>
<td>7 Forum: Is Borderless Education the Answer?</td>
<td>28</td>
</tr>
<tr>
<td>Evolution or Revolution?</td>
<td>28</td>
</tr>
<tr>
<td>Management Education – the potential of MOOCs</td>
<td>28</td>
</tr>
<tr>
<td>Management Education – the vulnerabilities of MOOCs</td>
<td>29</td>
</tr>
<tr>
<td>Compete and Collaborate</td>
<td>29</td>
</tr>
<tr>
<td>Conclusion: Innovative Adopter or Thoughtful Laggard</td>
<td>29</td>
</tr>
<tr>
<td>8 Emerging Themes and Recommendations</td>
<td>30</td>
</tr>
<tr>
<td>Role and impact of the Innovative Practice Trials</td>
<td>30</td>
</tr>
<tr>
<td>Transforming management education</td>
<td>31</td>
</tr>
<tr>
<td>Building competitiveness and prosperity</td>
<td>31</td>
</tr>
<tr>
<td>Recommendations for the Future of Management Education</td>
<td>32</td>
</tr>
<tr>
<td>Proposed next steps for ABDC</td>
<td>32</td>
</tr>
<tr>
<td>References</td>
<td>34</td>
</tr>
<tr>
<td>Attachment 1 – Future of Management Education Scoping Paper</td>
<td>35</td>
</tr>
<tr>
<td>Attachment 2 - B/HERT Report on Consultation Workshops</td>
<td>52</td>
</tr>
<tr>
<td>Attachment 3 – IPT Report – Swinburne University of Technology</td>
<td>56</td>
</tr>
<tr>
<td>Attachment 5 – IPT Report – UTS</td>
<td>68</td>
</tr>
<tr>
<td>Attachment 6 – IPT Report – RMIT</td>
<td>75</td>
</tr>
<tr>
<td>Attachment 7 – National Forum Agenda</td>
<td>84</td>
</tr>
</tbody>
</table>
This publication sets out the background and results of a unique 18-month project on the future of management education, supported by the Australian Government through the Department of Industry. In highlighting the significance of this project, we noted that ‘Australian business and management education is currently at a critical juncture. Business schools and the education sector operate in a more globalised, rapidly changing environment and need to respond to a number of key challenges.’ These challenges include the demand for enhanced management, leadership and collaboration skills as part of a broad approach to improving Australia’s productivity performance, the need for deeper engagement and knowledge exchange between educational institutions, business and government and the pressure to build quality and relevance in the face of funding challenges, capacity and capability constraints, high dependency on international student fees and changing incentives for the higher education sector.

The project had its origins in the recommendations of Dr Terry Cutler’s 2008 Review of the National Innovation System, which highlighted the ‘challenging range of strategic, operational and integrative competencies required to lead innovative businesses’ and argued that ‘the capacity to develop these competencies needs to be expanded in Australia.’ The Review went on to propose that, ‘Deans of business schools could consider leading a discussion on management education and its role more broadly in education, training and innovation’. The Australian Business Deans Council (ABDC) developed this project not only as a response to the Cutler Review but also to reinstate the momentum established by the 1995 Karpin inquiry on leadership and management skills, Enterprising Nation. With funding support from the then Department of Education, Employment and Workplace Relations, a scoping paper was prepared which outlined the key challenges facing business and management education, and drew upon international management education initiatives as well as the views of business and research organisations in Australia. The project involved a series of consultative forums with business and other stakeholders, a national workshop on the potential impact of Massive Open Online Courseware (MOOCs) and three Innovative Practice Trials which were designed to prototype new and innovative approaches to the management education curriculum.

This project reflects the work of many individuals and organisations. We would first like to thank the DEEWR officers, now in the Department of Industry, who provided significant support and advice at the outset of this project. We must also acknowledge the role of ABDC President Professor Michael Powell, the ABDC Executive, fellow business deans and other colleagues who contributed their valuable time and expertise in the preparation of materials and through their participation in forums and workshops, particularly those who coordinated and monitored the Innovative Practice Trials. Finally, we would like to express deep appreciation to Business/Higher Education Roundtable (B/HERT) Executive Director, Dr Sharon Winocur and ABDC Executive Officer, Fiona Doyle, who undertook considerable work on the project to ensure it was completed successfully.

Professor Roy Green, ABDC Project Director

July 2014
Executive Summary

The Future of Management Education initiative was devised by the Australian Business Deans Council (ABDC) in collaboration with the Australian Government through the Department of Industry, which provided matching funding support for the initiative. The catalyst for the initiative was the growing consensus that some recalibration, and even possibly reinvention, was required in the design and delivery of management education, and this consensus was thrown into even sharper relief by the global financial crisis. Deficiencies in Australian leadership and management skills had been documented at least since the 1995 Karpin report, and there was increasing evidence that these accounted in substantial measure for lagging innovation and productivity growth in Australian businesses. The 2008 Review of the National Innovation System heightened the ‘challenging range of strategic, operational and integrative competencies required to lead innovative businesses’, and argued that ‘the capacity to develop these competencies needs to be expanded in Australia’. The urgency of doing so has since been elaborated in the context of international comparative data in the valuable series of Australian Innovation Systems Reports produced by the Australian Government which clearly links productivity performance to innovation capability and skills, including management skills.

Purpose of initiative

The purpose of the Future of Management Education initiative was not simply to replicate the by now abundant research on management capability but to engage practically with the evidence from the viewpoint of improvement and change in management education. To this end, the initiative comprised a detailed Scoping Paper, two consultative forums with business and the community and three Innovative Practice Trials (IPTs), which would provide opportunities for experimentation with new approaches to the business school curriculum. Combining rigour with relevance in management education, particularly through collaboration and teamwork, such approaches might be designed to advance the national productivity, innovation and skills agenda without losing sight of the need to integrate sustainability, social responsibility and ‘shared value’ creation into the curriculum. They would encompass new ways of responding to employer demands for generic as well as specialised employability skills among graduates, and to student demands for a well-grounded education, unique ‘boundary crossing’ skills and access to fulfilling career pathways, including the prospect of private and social ventures of their own.

The Scoping Paper outlines the background and evidence for the key challenges facing business and management education, including the relevance of MBAs and the range of skills that MBAs versus non-MBAs bring to organisations. Using the Scoping Paper as the basis of discussion, a series of consultative forums with business and other stakeholders were held and these in turn contributed to the development of criteria for allocating the three funded IPTs, which would prototype new and innovative approaches to the management education curriculum. In addition to promoting the IPTs, the ABDC held a national workshop ‘Is Borderless Education the Answer?’ in February 2013 on the potential impact of Massive Open Online Courses (MOOCs). The forum looked at what MOOCs mean to the global education community, in particular whether they amount to a ‘disruptive’ innovation or simply an evolution of existing trends, and the nature of the challenge they present to traditional learning platforms.

Innovative Practice Trials

Business school submissions to undertake IPTs covered a range of management education products and services within broad categories of leadership and management skills, including problem-solving, communication and creativity; management education in terms of specialised content and delivery; and business school engagement with business, not-for-profits and the vocational education and training (VET) system. Submissions were evaluated for selection on whether they met the criteria that they were innovative (novel and game-changing), engaged with business and/or the public and community organisations, and that the outcomes could realistically be achieved.

Swinburne University’s Faculty of Business and Enterprise created a ‘collaboratory to develop, prototype and evaluate a management development curriculum for the world’; Using a futurist methodology, a collaboratory of academics, industry representatives, government, relevant professional representatives and peak body leaders developed and tested a transformative model of management education based on values of sustainability to produce globally responsible leaders and developed a new curriculum map for management education offering an alternative to the standard MBA model.

The University of Technology Sydney’s UTS Business School trialled ‘two paradigms of industry partnered management education’ by developing the prototype subject ‘Integrated Business Consulting’ in collaboration with Fox School of Business (Temple University), where academic and business advisers work with postgraduate students using the disruptive model of business education partnerships, testing the U:Lab approach to design-led innovation and entrepreneurship, and evaluating these innovative approaches in a proof of concept that these approaches are sustainable for business schools in the long term.

RMIT University’s RMIT Business College’s project ‘developing managerial skills for the complex inter-disciplinary interface: management education as an experiential living laboratory’
showcased a new role for the university as a ‘living laboratory’ for a particular group of students to experiment with problem-based approaches to ‘wicked’ issues and developing management educators as designers and facilitators of evidence-based management learning opportunities to create graduates with management skills based on integrative thinking.

Adapting and changing
The future of management education in Australia will be determined by its capacity to adapt to a changing economic environment and to shape it through high quality research, an innovative teaching curriculum and deep engagement with business and other stakeholders. However, the demands of both employers and students are changing and require an increasing emphasis on ‘boundary-crossing’ skills that build on specialised knowledge but encompass such attributes as collaboration, communication, leadership, problem-solving and critical thinking. The IPTs played their part in interpreting these trends with a focus on innovation in management and management education, where future leaders are developed from shared knowledge across disciplines and are taught from multiple perspectives, including the integration of design thinking with business analytics.

The experiential learning programs provided students with the opportunity to have real live issues and problems to solve and provided academics with considerable research material. Business and industry engagement with the business schools was strengthened by the collaborative activities. There was agreement from business and the business schools that innovative leaders, as well as environmental sustainability and social impact, are essential to Australia’s economic competitiveness and prosperity and that the development and education of such leaders is the core responsibility of business schools. As the business world becomes increasingly complex, there is every indication from this initiative that industry will continue to support and rely upon the contribution of business schools, but only if they are able to respond to and anticipate major economic, technological and organisational changes. In this context, management education programs will deliver the managers, leaders and entrepreneurs who will drive future growth and transformation.

Future steps
Drawing on the substance and implications of the various elements of the Future of Management Education initiative, this report suggests that possible steps to take in the short to medium-term to broaden discussion, promote diffusion and adoption of new ideas, and anticipate new developments in business education and its changing external environment, might include the following.

1. Commitment to intelligence gathering and dissemination of best practice in innovative and experiential learning
Disseminate key outcomes of this initiative for consideration and possible adoption by ABDC member schools, with project and IPT directors to present and discuss key outcomes for business schools and ABDC Teaching and Learning Network members to consider ways of implementing key learnings.

Facilitate information sharing, promotion and dissemination of best practice in innovative and experiential learning in business education and research.

• Encourage ABDC members to share and promote innovative developments and best practice in business education and research, for example, presentation of successful innovative case studies at ABDC and network meetings, publishable video-clips and resources.

• Develop an ABDC online resource portal and newsletter to collate best practice resources in business education and research for awareness-raising, engagement and implementation.

2. Strategy for business and community engagement
Further establish links and alliances with key industry bodies to drive key strategic action items, as follows:

• Establish a network of deans to develop and implement a relevant industry engagement strategy, including promoting the role and contribution of Australian business education and research, within our universities, to government, industry and the community.

• Establish links with key industry bodies to not only improve perceptions of business education and research, but to identify common issues and explore ways to jointly achieve shared key objectives including joint initiatives, such as developing a repository of relevant Australian case studies or excellence awards for industry and community engagement.

• Support initiatives with key industry bodies to increase experiential learning opportunities and ultimately improve the work readiness of university graduates, expand their job opportunities as well as enhance outcomes for employers. For example, ABDC will be a key participant in the new Universities Australia led-initiative with business industry groups to increase work integrated learning opportunities.

3. Promotion of excellence in business education and research
Explore ways to support excellence of the research function, curriculum development and teaching delivery in Australian business schools including encouraging and benchmarking industry engagement, relevance and experiential learning.

• Encourage a more comprehensive model of measuring impact of (and improving) business research. Consider
developing a paper to identify core infrastructure required to support quality business research including succession planning recommendations to address issues of an ageing academic demographic and a shortage of PhD business graduates.

- Consider developing a model to identify core infrastructure required for innovative technology and disruptive learning and teaching techniques that better support analytical, problem-solving and experiential learning opportunities.

- Support three networks to address ABDC strategic priorities in research, learning and teaching and international education including key initiatives, such as developing a learning and teaching resource portal and maintaining an ABDC Journal Quality List.

- Support members to effectively meet national higher education standards through setting business discipline-specific learning standards. Subsequently consider assisting member schools with external benchmarking of student learning outcomes against these standards.

The ABDC’s Future of Management Education initiative has clearly highlighted the role of innovative leadership and management in Australia’s future economic prosperity, environmental sustainability and social progress. On this key message business and business schools are in complete agreement. The report has also identified the important challenges for business schools in both shaping and adapting to a more complex, globalised environment with new interdisciplinary and inter-professional educational models. These challenges are confronting but, as the IPTs demonstrated very successfully, through engagement with stakeholders, imaginative curriculum development, technology deployment and experiential learning, management education programs can deliver the leaders that are demanded by business and the community. It is this collaborative process in developing management and innovation capability that will transform Australia’s long-term prospects.
1 Introduction

That higher education is an important driver of economic competitiveness in an increasingly knowledge-driven global economy is well recognised and has led to significant attention devoted to the review of content and delivery of university programs across national agendas. Management education has been swept up in these policy reforms and at the same time has had to deal with the after-effects of the global financial crisis, which has shaken confidence in business leadership and operations.

The challenge for business schools worldwide must be to restore confidence, relevance and a sense of entrepreneurialism as they prepare their graduates to deal with increasingly complex organisations and careers. Through technology, information is now available to more people than ever before and this demand is projected to grow. Many business schools are in the process of reviewing their value proposition in the current technology-rich, international educational landscape. This task has become more complex because over the last five years this landscape has changed dramatically, especially in light of increasing competition for students and grants coupled with decreasing government funding.

Through technology, information is now available to more people than ever before and this demand is projected to grow

Professor Srikant Datar stated in his address to the Future of Management Education Forum that many business schools have already begun adopting new approaches to maintain their relevance in a rapidly changing business environment. He argued that:

Business schools need to do two things: reassess the facts, frameworks and theories that they teach (the ‘knowing’ component), while at the same time rebalancing their curricula so that more attention is paid to developing the skills, capabilities and techniques that lie at the heart of the practice of management and the values, attitudes and beliefs that form managers’ world views and professional identities (the ‘being’ component).

This project attempted to address many of these issues.

Context and background

In the 1950s, business schools were heavily vocational in approach and business education was a matter of mastering institutional detail and possibly being ‘apprenticed’ to successful practitioners. By the mid-1960s, a more ‘scientific’ approach was introduced, especially in the field of finance; doctoral programs were established and publication rates became important performance indicators. Since then, management education has undergone incremental change while mostly holding on to the notion of operating as a knowledge repository of leading business practices.

There is no longer a standard formula of management

Today, not only do we live in a business environment without borders, but also the management skills necessary to run a company such as Google or a technology start-up differ in scope and style from what has been traditionally taught in textbooks. There is no longer a standard formula of management, if there ever was one, and the relationship between the business and the business school is ever more important for the teacher and the student. All of this is happening in an environment where the practice of knowledge transfer, which historically has been confined to a physical lecture/tutorial format emanating from the experts to the students, is now available to anyone at any time and any location as long as they have access to the internet. This disruptive change in the education domain is not one that was foreseen by management education experts, or even driven by them, but a change that took shape largely through technological developments and interventions virtually imposed onto educational systems. This has led to a widespread belief that business has started to lead the way towards new complex management practices while business schools are playing catch-up. This has exacerbated the relevance gap between management and business schools.

Australia’s focus on management development was initiated in 1995 with the publication of Entering the Nation – Report of the Industry Taskforce on Leadership and Management Skills (the Karpin Report). This comprehensive report directly linked company performance to management practice, with considerable attention on the non-technical dimensions of management and the key role of innovation and creativity, people management, communication and negotiations skills, and change management. In the scoping paper to the Australian Business Deans Council (ABDC) Future of Management Education initiative, Hall, Agarwal and Green (2012) point to the currency of many of the original 28 recommendations and the fact that, despite their relevance, their implementation has been ‘patchy’.

1 The ABDC would like to acknowledge the contribution to this chapter of Dr Christopher Vas, Academic Director, Murdoch University.
Since then, consistent efforts have been pursued to preserve the development of an 'enterprising culture' among politicians, industry executives, academics and the broad community. Why management capability is crucial for Australia’s long term prosperity and sustained growth are highlighted in reports such as Venturous Australia, a 2008 review of the Australia's National Innovation System; Management Matters: Just How Productive Are We? and Workplaces of the Future, in 2009; and Leadership, Culture and Management Practices of High Performing Workplaces in Australia, in 2011. The burning platform driving this consideration is spelled out in the 2012 Australia Innovation Systems Report (DIISRTE 2012), which clearly links innovation with productivity and confronts the poor innovation performance of Australian business by international standards. This is a serious issue for Australia’s long-term prosperity. With projections of lower population growth and lower labour force participation rates, business and academia jointly have to invest in a quality education that will produce world class business leaders. The risk, responsibilities and rewards must be shared.

Creativity is needed to turn a bunch of knowledge into something useful otherwise it’s just a bunch of knowledge. Innovation was also identified as a core business school activity by the Association to Advance Collegiate Schools of Business (AACSB) International report in 2010. In the analysis, implementation is equally dependent upon leadership and management as it is on science and technology. This need for innovation is made even plainer in the words of Jack Andraka, a teenager who developed a new, rapid and inexpensive method to detect early signs of pancreatic cancer just using Google, who said creativity was needed to turn a bunch of knowledge into something useful otherwise it’s just a bunch of knowledge.

In accordance with Datar, the AACSB International report also refers to a balanced approach and emphasises the interdependence of the creation of new ideas (generally associated with technology) and their implementation (generally associated with management).

Challenges for management education

In accepting the premise that mature knowledge economies will dominate among prosperous nations in the coming decade and that innovation underpins their steady growth, a natural conclusion is that management education must be a major contributor to this transformation. All indications suggest that Australia’s future lies in being able to translate ideas, highly developed skills and knowledge into a sophisticated and competitive business sector. This is the means by which Australian business must position itself in order to compete internationally, particularly against the growing technological and business innovation emerging from India, China, South Korea and other developing countries in the Asia-Pacific.

If this is the scenario of the immediate future, then the commentary coming from executives and academics that current management practices are not suited to innovation are highly relevant. Indeed, it has been said that standard management practices, such as continuous improvement goal setting, may even be counterproductive to innovation and, instead, what is needed are bold goals for innovation to flourish (AACSB 2010). In this context, the fundamentals of management education are clearly in need of review and possibly revision. This presents a new set of opportunities for business schools to articulate the full potential for management and management education to support business through innovation. Management educators must prepare managers as leaders and decision-makers who are adept at dealing with uncertainty and understand that constantly changing landscapes succeed in a networked-knowledge economy; innovative performance will be improved by strengthening this management talent pool. It is not enough to create an economy that is ideas rich but execution poor; success resides in the application of breakthrough ideas. This extends the challenges facing business schools significantly.

The age-old adage of ‘people are an important asset’ has never been more real for Australia, in all organisations across all industry sectors. As the AACSB International report points out, the globalisation of innovation and the increasing geographic dispersion of knowledge, research and development requires new organisational structures and managerial capabilities (p.17). It also requires new forms of collaboration and levels of coordination. This is a management challenge where knowledge is dispersed across firms, industries, disciplines and countries. Managers need the skills and capabilities to exploit valuable knowledge and they need to manage the innovation process which relies heavily on collaboration and creativity. Management education for innovation needs to be designed to produce world leaders and may involve a very different approach to the curriculum.

Australia has about 1.5 million managers (12.5 per cent of the 11.5 million workforce) who are managing and leading a workforce of 10 million (Vas 2013). Research (Boedker et al. 2011) suggests that high performing workplaces can be 12 per cent more productive and 15.6 per cent more profitable if managers and leaders enhance their focus on employees, customer value-add, innovation and fairness. With almost 80

---

per cent of Australia’s labour force being led by managers and leaders of some shape or form in business, it is self-evident why management education is so critical. It also must be world class. Australia needs to achieve its productivity dividend through transforming human capital, ramping up technology to improve business connectivity and performance, and through innovation-led practices that can be sustained. These are the changes that will support making businesses competitive in the region and across the globe.

Managers need the skills and capabilities to exploit valuable knowledge

The challenge is thus two-fold. Firstly, transforming business education to prepare well rounded employees for organisations that operate across borders and disciplines and also instilling in future graduates the entrepreneurial mindset to create innovative organisations. The creativity to exploit skills and knowledge in different ways is just as important as gaining knowledge.

Secondly, business schools and businesses need to raise the level of meaningful engagement across the sectors in order to leverage the strengths and expertise available and thereby realise the full potential of talent. The business-education ecosystem must be re-created, which will also require embracing interdisciplinary efforts. In Australia, this means a much closer linkage between the business and other academic disciplines, particularly in the STEM areas.

Technology and change

Today, more than 30 per cent of the world’s population is connected to the internet, with the developed world averaging more than 65 per cent while Asia and Africa average less than 20 per cent (Centre for Internet Safety 2011). In actual numbers, Asia alone exceeds Europe, North America and Australia combined and access in the developing world is growing rapidly. Social network platforms like Facebook and Twitter have seen phenomenal growth in recent years. For example, quarter on quarter growth rates for Twitter grew from 500,000 tweets in 2007 to more than 2 billion in 2010. Twitter has just floated on the stock market and has done phenomenally well for a company that has yet to make a profit and has not even a well-developed business model. This provides some indication of the influence of technology as more of the world comes online. The Netherlands has just commenced an iPad pilot initiative in seven schools, replacing teachers and education content in classrooms with iPads that support individualised learning through various apps. The technology revolution is here and advancing onwards. Coupled with these technological advancements across social and educational domains, the world is also experiencing a massive surge in data and information – structured and unstructured. With the enormous volume of information commonly known as ‘big data’ in the public domain, businesses are starting to turn their minds to working with individuals that are not only good in management disciplines but who are also competent in blending data analysis and technology with decision making skills in such uncertain environments. Massive Open Online Courses (MOOCs) are probably the most discussed topic in university educational circles throughout the world today. This is understandable given the ‘perfect storm’ environment of global technology networking tools, especially social media, the ubiquitous presence of the internet among developed and developing countries, the social demand for advanced education anytime/anywhere, the rising costs of providing and acquiring advanced education, and the active involvement with some of the world’s most prestigious universities (Winocur & Coenen 2013). As a result, many of the issues surrounding MOOCs are well documented and were addressed throughout The Future of Management Education MOOC forum (Is Borderless Learning the Answer?) in March 2013 (see Chapter 7).

It has been suggested that MOOCs provide a sustainable value proposition for real-time lifelong learning that is well suited for businesses and individuals. For institutions, MOOCs can result in better allocation of scarce resources, scaled workflow patterns and lesser reliance on physical bricks and mortar infrastructure. The emergence of ‘flipped classrooms’ is quickly catching on, where individuals spend time engaging with learning content outside the classroom and face-to-face sessions are reserved for group work, networking and undertaking traditional ‘homework’ tasks that focus on the application of learning. At the same time, there is wide acknowledgement that MOOC technology is no panacea; it is another enabling development that will continue to evolve.

MOOCs provide a sustainable value proposition for real-time lifelong learning

Technology has seldom moved backwards, so it is a given that MOOCs are here to stay. It is about balancing this development with all other learning frameworks, balancing face-to-face interactions with those that take place over an online platform. This so-called trend of ‘technetisation’ (Vas & Koruth 2013) signifies the next wave beyond globalisation – technology penetration, the rise of social networks requiring a higher level of social intelligence, virtual connectivity, but also business-societal convergence. Hence the urgent need for adaptive thinking. These are characteristics that will become prominent as the future unfolds.
Possibly of even greater importance is that universities have now been joined in the marketplace by a wide array of non-traditional education players with quality, specialist knowledge and capabilities that range from research, teaching, coaching, assessment, accreditation, etc., which historically were exclusively provided by universities. The list of both profit and not-for-profit specialist providers expands daily. While this ‘unbundling’ of long-established activities, formerly conducted within the confines of universities, may be seen as ‘disruptive’ to higher education institutions, they are actually viewed, in sharp contrast, as enabling to the many new worldwide market entrants providing services and the many new registrants using them (Winocur & Coenen 2013). All of these factors need to be considered in the future of management education.

Universities have been joined by a wide array of non-traditional education players with quality, specialist knowledge and capabilities.

The online survey, See the Future Survey (2013), was conducted by CarringtonCrisp, with support from the European Foundation for Management Development (EFMD) and the Association of Business Schools (ABS), to gather data that would support the development of new business models needed to improve their public image and to better engage with society. These survey findings confirm many of the conclusions cited here. For example, respondents indicated that, with rising tuition costs, the return on investment for business education was harder to justify. It was felt that curricula needed to be refreshed so that contemporary issues demanded by students and employers, such as sustainability, ethics and corporate social responsibility, were incorporated into the study program. New schools opening in Asia and MOOCs enhanced the competition for student numbers and for attracting the best and the brightest. Employers even suggested that there would be benefit in learning another language as part of the study program. Most importantly, from the perspective of this project, is that while there is agreement that the role of business schools is primarily about jobs and providing students with the skills they need to succeed, students are also interested in learning to think creatively in order to deliver innovative outcomes. The survey respondents suggested that business schools are out of touch with the priority issues identified by business and society and improvements could be made by adopting more modern teaching techniques. The message is clear that business schools must review both content and delivery. Furthermore, in an increasingly networked and globally interdependent environment, it is also important for business schools to transform their graduate learning approach to change mindsets from being job-seekers to job-creators.

Engaged scholarship

The increasing focus of going ‘beyond the bottom line’ and developing new productive linkages between ‘society and business’ has been voiced by many, most recently evidenced in the Financial Times by some of the deans of leading business schools (Financial Times 2013). This development, popularly known as Porter’s ‘Shared Value’, is not simply an aspiration but a new way of achieving sustainable inclusive growth. Multinational corporations like Pepsi, Nestlé and Pfizer are all leading the pack in this regard. Australian companies also have sophisticated in-house ‘academies’ and talent programs to recruit and develop current staff. These activities should be the domains of business schools and should prompt further reflection on how best to re-establish the field of expertise to regain this educational space.

Business also has to reposition itself within society after the disasters of the global financial crisis

Business also has to reposition itself within society after the disasters of the global financial crisis. It also needs to better engage with the community and develop a more positive image of its contribution to a nation’s prosperity. This was one of the themes put forward by representatives of the Australian accounting profession in their submission on a national business curriculum. They were of the view that business policy and practice is generally poorly understood within the community. As the CEOs of CPA Australia and the ICAA stated:

The prospect of lifting awareness levels of business in society would serve the public interest over the long term. Business, in forming the umbrella under which the study of economics, finance and accounting is taught, presents the best opportunity for topics such as ethics and financial integrity, sustainability, Asia and Australia’s engagement with Asia, Indigenous issues to become meaningful within an applied and realistic framework. We see this approach as a necessary and sound long term investment in social capital which will better position Australia, both nationally and internationally, to deliver an innovation and enterprising agenda.

Business would benefit from becoming more directly involved in business school activities and competitions, mentoring students and small-medium enterprises to advance their operations and capabilities such that they become better integrated into global supply chains. They must see their involvement with business schools as a shared responsibility for the obvious reasons of improving the quality of the education for their future employees as well as being informed about the latest research and developments in management in Australia and internationally. Australian business engagement with universities generally ranks low among OECD countries and must be lifted significantly to achieve the outcomes identified above. Government should consider the adequacy of incentives for both business and universities for this type of engagement. This, in some ways, points to the cultural divide or the ‘knowing’ and ‘doing’ gap that exists between academia and business in not being able to remain relevant to each other’s needs.

Thus, much has to be accomplished by way of improving relationships, trust and credibility between business and academia. It is in this context that business schools and business need to reset their engagement frameworks - moving away from transactional relationships to engaged partnerships. Business schools need to re-establish their position as trusted experts for business. This aspiration must be matched with a movement that transforms perceptions and explores avenues for engagement and responsible stewardship to build new linkages.

Seeding the transformation journey – The Future of Management Education

The Future of Management Education initiative must be viewed as a starting point along a journey that creates a sustainable change framework. Within business schools the narrative for change management and innovation flows freely; yet the historic roots that frame the traditional academic structure are deeply entrenched and therefore pursuing a transformation agenda is a delicate process. Business schools have for long held in high esteem the curriculum, learning pedagogies and institutional philosophy that has created, for some, a significant brand value. However, recent market trends, evidenced through some of the business school rankings, reveal that it is a holistic learners’ experience. Professional networks, industry connections, employment opportunities, alumni, pre/post learning engagement, international outlook and faculty composition matter as much as the learning content. These are the criteria that are used in international rankings regardless of their importance to graduate learning outcomes. In fact, the AACSB suggests that rankings actually do a disservice to the quality of management education because the ultimate effect is one of homogeneity rather than diversity. The better the score against the set criteria, the higher the ranking. Business schools continue to wrestle with the basic questions of purpose, positioning and program design (Datar 2012).

The recurring theme from this overview is a need for management education to find the right balance in this complex landscape. Adaptive thinking, deep and meaningful industry networks, resource constraints-based innovation and technology underpinning institutional and learning changes will become core to the future landscape of management education. Business schools are a part of a university system and therefore are subject to the policies, funding models and performance indicators that are associated with higher education. But business schools also serve business and industry directly and need to operate in alignment with the latest developments in the marketplace. Because these competing forces may be difficult, if not impossible, to reconcile, there is value in clearing the deck to review the best way forward for management education. Anchoring innovation to the future of management education is both constructive and forward thinking. Business schools have an opportunity to build on their strengths and reputation, which should lead to a diversity of offerings and re-establish the expertise and professionalism some have claimed has been lost in recent times. The Innovative Practice Trials offered a sound basis for the commencement of this process.
The Future of Management Education Initiative

Objectives
The Future of Management Education initiative was developed to resume the momentum established by the 1995 Karpin inquiry on leadership and management skills, Enterprising Nation. Since the Karpin inquiry, a number of studies have reaffirmed the need for action. In Management Matters in Australia: Just how productive are we? (Green et al. 2009), a multi-university research team provided internationally-benchmarked data that helped pinpoint areas where management education can stimulate organisational innovation in Australia. The study found that:

- Australian management practices are only moderately above average when benchmarked globally
- Australian management tends to overrate its own performance against the benchmarks
- many Australian enterprises are stronger in operations management than people management; specifically, they lag in advanced people management practices including attracting, developing and retaining talent, identifying innovative but practical ways of developing human capital to improve performance and add value to organisations.

At the same time, the Australian Government was developing an innovation agenda which also sought to address a 'long-term weakness in business innovation and in collaboration between researchers and industry' (Green et al. 2009, p. 4). The Future of Management Education proposal sought to address a range of issues impacting on management education including:

- the trial of innovative management education practice to improve lagging management performance
- directly linking management education to the innovation agenda at the enterprise and organisational level
- a review of the purpose and key functions of business schools
- consideration of how management education can best respond to employer and industry demands for employability and generic skills
- how better relationships can be formed between business schools and industry.

One purpose of the Future of Management Education initiative was to establish and promote a vision for management education in Australia which is based on a shared understanding of the contemporary and future challenges facing the sector, the initiatives that will allow the sector to respond effectively and proactively to those challenges, and the contributions the sector can then make to enhancing innovation, productivity and economic performance.

Main components of the initiative
The Future of Management Education in Australia initiative comprised three components:

- a scoping paper
- two consultation forums
- three innovative practice trials.

Scoping paper
The Future of Management Education Scoping Paper (see Attachment 1) comprises a detailed discussion paper which outlines and establishes the background and evidence for the key issues confronting the future of management education. These include the relevance of MBAs and the range of skills that MBAs versus non-MBAs bring to organisations. The categories seen as being the most important to managerial work (managing human capital and managing decision-making processes) were found to be lacking in many MBA courses. It was also found that the reasons people undertake an MBA may be increasingly for the prestige of the degree rather than the skills learned.

Management education needs to be more business relevant
Many Australian managers lag their international counterparts in significant areas of management capability, and it is arguable that shortcomings in current management education offerings are contributing to this capability gap. For example, some have suggested that management education needs to be more business relevant, better integrated around contemporary business problems and challenges, and more directly attuned to contemporary innovation and productivity imperatives.

The scoping paper poses a range of questions around the knowledge that business schools should generate and the nature and type of relationships they should develop. The paper was disseminated to stakeholders and intended to be used in targeted consultation forums, stimulate debate and provoke the identification of further issues.
Consultation workshops
Two consultation workshops were held in Melbourne and Sydney in March 2012 and formed a broad consultation exercise with business and industry from which the criteria for the innovative practice trials were developed. The workshop participants comprised representatives from business, ranging from large multinational companies to Australian owned SMEs, industry associations, experts and practitioners, government and tertiary educators from the university and VET sectors.

There were several themes that emerged from the discussions. Theme One looked at the graduate skills of leadership and managerial skills. The importance of innovation, creativity and problem-solving skills, and the need for understanding of self and awareness of others to effectively lead were identified. Students need experiential opportunities to acquire effective strategies that work with others. Management as a profession in Australia does not value people enough. Business would benefit by lifting the quality of skills in graduates, including the 'softer' communication and interpersonal skills to create a broader graduate who transitions into a 'lifelong reflective manager'.

Theme Two focused on management education in terms of its content and delivery. The relevance of the MBA, the value of the business school product and whether Australian business schools should be more differentiated were questioned. The view that management education needs to address 'what is happening in the real world', including a clear focus on ethics and values, avoiding silos and using an interdisciplinary approach which is linked to science, engineering design, etc., was expressed. It was acknowledged that students are fundamentally different to many of the academic teaching staff in that they have grown up with the internet and better understand the more dynamic nature of business. Short downloadable training modules which could make up a complete course were identified as one alternative to the traditional business school model.

Theme Three involved the engagement between business and business schools. There was general consensus that greater connectivity and more business engagement with the schools would be beneficial for many reasons including increasing opportunities for experiential learning.

The report on the workshops is attached (see Attachment 2).

Innovative Practice Trials
The Innovative Practice Trials (IPT) provided opportunities to develop and test innovative approaches to management education that would otherwise not have been pursued in the business schools. This 'additionality' component was considered essential to the success of these trials designed to support creative, effective and internationally competitive programs that, upon demonstrated success, can be adapted in the curriculum and related management education activities of business schools.

The IPTs provided opportunities to develop and test innovative approaches to management education

It was intended that submissions for the Practice Trials cover all forms of management education products and services delivered through business schools including, but not limited to, undergraduate and postgraduate offerings, executive education and bespoke courses. It was expected that submissions for the Innovative Practice Trials would be designed to address one or more of the dimensions of management education innovation addressed in the consultation workshops: the Graduate Skills of Leadership and Management; Management Education including Content and Delivery; Business/Business School Engagement.

The Innovative Practice Trials are outlined in greater detail in the next section.
3 The Innovative Practice Trials

Overview
Submissions for the Innovative Practice Trials (IPT) were open to ABDC's 39 members. However, collaboration within the educational institution, with external educational providers, and/or with external stakeholders, was welcomed.

It was intended that IPT submissions cover all forms of management education products and services delivered through business schools within the broad categories of:

- **Graduate Skills** – leadership, management problem-solving
- **Management Education** – content, delivery
- **Business School Engagement** – business, non-profits, VET.

These categories were not meant to be exclusive and proposals were required to address one or more of the broad areas identified. Within each of the categories, it was envisaged that the submissions would represent a range of innovative practices including teaching and learning, professional development, research collaboration and dissemination and networking innovations.

Judging Panel
The Judging Panel was formed from The Future of Management Education Steering Committee comprising key stakeholder groups including selected high-profile business representatives with an interest in the future of management education.

Assessment
In assessing the submissions, the Judging Panel was mindful of the extent to which the projects developed management innovation by:

- teaching and cultivating key skills associated with the creative application of solutions, entrepreneurship and ‘integrative thinking’ which encourages thinking across knowledge gaps and domains
- focusing on management research through implementation and diffusion of new ideas and/or practice-oriented interdisciplinary research
- engaging with their communities, including the businesses in their region and beyond, through a range of entrepreneurship activities.

Submissions were evaluated on the following criteria:

1. **Innovative** – Is the project novel and ambitious? Does it aim to create value through new curriculum approaches, modes of delivery and interaction? Has the status quo been challenged? Is the project ‘game-changing’, dealing with key challenges of the day?

2. **Engagement** – Have business and/or public and community organisations been involved in the design of the project? Will they be involved in implementation and/or evaluation of the project? Do they support the projected outcomes?

3. **Outcomes** – Can the outcomes of the project be realistically achieved? Can it be replicated by others? Is the project likely to result in improvements in graduate skills, management education and/or business engagement? Will the project benefit the business education sector as a whole?

The Innovative Practice Trials
Submissions to participate in the IPTs were received from five different institutions from which the independent judging panel selected the following three projects.

1. **Collaboratory to Develop, Prototype and Evaluate a Management Development Curriculum for the World**
   Swinburne University’s Faculty of Business and Enterprise proposed a collaboratory to develop, prototype and evaluate a management development curriculum for the world:
   - Using a futurist methodology, a collaboratory of academics, industry representatives and government, relevant professional representatives and peak body leaders develop and test a transformative model of management education based on values of sustainability to produce globally responsible leaders.
   - The collaboratory represents an open-source meta-space which can be established anywhere, virtual or real, within companies or communities or within a business or management school.
   - Develop a new curriculum map for management education offering an alternative to the standard MBA model.

2. **Two Paradigms of Industry Partnered Management Education**
   The University of Technology Sydney’s (UTS) Business School proposed trialling two paradigms of industry partnered management education:
   - Developing the prototype subject ‘Integrated Business Consulting’ where academic and business advisers work with postgraduate students using the disruptive model of business education partnerships in collaboration with Fox Business School (Temple University).
   - Testing the U:Lab approach to design-led innovation and entrepreneurship; U:Lab is an interdisciplinary framework based on the idea that innovation occurs between people and is a product of opportunistic interactions.
The prototype U:Lab approach will inform a number of subjects in a new postgraduate degree.

- Evaluation of these innovative approaches in a proof of concept that these approaches are sustainable for business schools in the long term.

3. Developing Managerial Skills for the Complex Interdisciplinary Interface: Management Education as an Experiential Living Laboratory

RMIT University’s RMIT Business College proposed developing managerial skills for the complex interdisciplinary interface: management education as an experiential living laboratory.

- The IPT showcased a new role for the university as a ‘living laboratory’ for a particular group of students to experiment with problem-based approaches to ‘wicked’ issues.
- Developing management educators as designers and facilitators of evidence-based management learning opportunities to create graduates with management skills based on integrative thinking.

Additional Projects

The panel recommended that two additional projects be undertaken as these would strengthen the IPT objectives and contribute to The Future of Management Education initiative.

1. Borderless learning: How does Australia grab the brightest and compete with the best?

Massive Open Online Courseware (MOOC) is emerging as global facts-of-life and as potential opportunities for and threats to our traditional educational models. Other than the obvious financial ramifications for all involved parties, this is the evolution of multi-media education within the context of the technologies that can be employed and the emergence of a different type of student capability and mindset.

The rise of Coursera and EdX has major implications for traditional university education, in general, and management education, in particular, because of its adaptability to online delivery. This is a topic that is fundamental to changing educational practices and was not considered in any of the submissions.

The panel recommended a thought leadership forum be conducted in March 2013 to begin the conversation about how Australia will position itself in this new era of online international education.

2. Exploiting the synergy among the IPTs funded

The synergies among the three IPT projects which allow learnings and insights to be documented can advance and transform management education to deal with the issues of tomorrow. In sharing information in project development and implementation, the three IPTs were asked to provide responses to the following two questions:

- How do the collective IPT findings answer the question ‘what step changes should those involved in management education make now to transform management education for the future’?
- How do the outcomes of these three IPTs advance Australia’s productivity agenda in transforming capabilities and human capital, particularly in reference to intangible assets such as entrepreneurial managers, empowered employees, leadership, among others?
4 IPT – Collaboratory to Develop, Prototype and Evaluate a Management Development Curriculum for the World

Introduction

Professors Irene Tempone and Eddie Blass from the Faculty of Business and Enterprise, Swinburne University of Technology spearheaded the university’s IPT submission, Collaboratory to Develop, Prototype and Evaluate a Management Development Curriculum for the World.

Swinburne University was a sponsoring co-author of the 50+20 Agenda, a collaboration of business schools and interested parties that came together to challenge the role of management education from the starting point that the current economic model of unrestricted growth and consumption is obsolete. The 50+20 Agenda project outlines its philosophy of the collaboratory involving a circular space that is open to concerned stakeholders for any given issue. It represents an open-source meta-space: a facilitated platform based on open space and consciousness building technologies. Once understood, a collaboratory can be established anywhere, virtual or real, within companies, communities, or within a management school. Its primary strengths lie in enabling issue-centred learning, conducting research for a sustainable world, and providing open access between academia and practice.

A collaboratory represents an open-source meta-space

Objectives

The objectives of this Innovative Practice Trial were to:

• establish a ‘collaboratory’ of academics from across the university, industry representatives, and government and peak body leaders to explore the notion of a management education for the world

• develop a curriculum for the development of responsible leaders for a sustainable future drawing on the outcomes of the collaboratory

• test the curriculum ideas with current and future students and future employers

• prototype elements of the curriculum for testing in the current ‘classroom’

• disseminate an ‘alternative model’ to the current management education offering to encourage debate and be a trigger for change

• contribute to the further dissemination and development of the 50+20 Agenda to develop management education for the world in partnership with the Global Responsible Leadership Initiative (GRLI) and the Principles for Responsible Management Education (PRME).

A two-day retreat, utilising futures methodologies such as scenario planning, a range of interventions and curriculum ideas were prototyped and tested with current and future students and employers. The short film of the launch of the 50+20 Agenda at Rio was used to open the retreat. A third day allowed for reflection, reconsideration, refinement and commitment to a course of action completed the collaboratory process before evaluation and dissemination.

All four scenarios took a futurist view, assuming the year was 2030 …

Implementation and emerging challenges

While the discussion was insightful and positive, gaining commitment to action from organisations and faculty proved difficult. To this end, the project team decided to conclude the trial by making a video message to business schools about the direction they should be following into the future.

Four scenarios were developed. The details of these can be found in Attachment 3 together with the script of the video, which can be viewed at http://www.youtube.com/watch?v=MMao3yXxNnc.

A paper, which provides an overview of the IPT and can be found in Attachment 4, was presented to the Global Responsible Leadership Initiative (GRLI) General Assembly in Paris in June 2013.

The Scenarios

All four scenarios developed took a futurist view, assuming the year was 2030.

Scenario 1 focused on The Corporate Business School of the Future, which is largely in decline. MBAs are no longer seen as being as relevant as employers were finding MBA graduates to be too theoretical and generalist and lacking the practical skills of change management and collaborative working. Study was seen as being optional and undertaken on a part-time

---

6 Professor Blass is now located at the Learnings Innovation Hub, University of New England.
8 Principles for Responsible Management Education (PRME) is an accord or set of principles that a number of institutions have signed up to and it represents a set of core standards with regards to values underpinning management education.
9 Global Responsible Leadership Initiative formed by the European Foundation of Management Development (EFMD) and the United Nations Global Compact (UNGC) as a collaborative organisation where business schools and industry discuss issues around responsible leadership (see www.grli.org)
The Future of Management Education

19

basis as business education was gained within the workforce. The benefits of developing talent within the workforce is realised socially, economically and, with regards to knowledge management and development, within the organisation.

Scenario 2 focused on The Collaborative Partner Providing a Service where business schools have all but disappeared. Most MBAs are a bridging qualification for non-business graduates who are working in commercial environments. The PhD is seen as adding credibility to published outcomes, but it is not a barrier to entry to the academic workforce. Rather, the group facilitation skills to hold and manage a collaborative space become the entry hurdle.

Scenario 3 was predicated on the increasing prominence and utilisation of Massive Open Online Courseware (MOOC), with the top 25 global business schools in the world rankings offering free business and management education, together with TED talks, and the expansion of executive coaching and consultancies offering online programmes, leaving the traditional business school model in decline. The latest ideas and research is easily accessible. Enrolment, assessment and certification for MOOC programs are now managed through a centralised national accreditation body. Assessments are personally designed to draw on the student’s work/life situation to ensure immediate relevance and application of learning. Academics are under pressure to manage their own MOOC. Industry can access a range of free top-end learning materials and use them as and how they wish within their organisation.

Scenario 4 outlined a Business as Usual situation where traditional courses are still taught but are now very targeted because of the competition from alternative corporate, private and online programmes. A PhD remains the main requirement to be an academic.

Outcomes as measured against objectives

The objectives to establish a collaboratory of academics from across the university, as well as industry, government and peak body representatives, and to further contribute to the 50+20 Agenda were mostly achieved. A paper (see Attachment 4) was delivered at the GRLI General Assembly in Paris in June 2013 where feedback was positive and the 50+20 Agenda steering group started to reflect on some of the issues that stemmed from the retreat. The paper outlines how the collaboratory was designed and the methodology behind the project. It was recognised that other evaluation was premature as there was the need to develop the innovations first. A video was made, see http://www.youtube.com/watch?v=MMAo3YxXrNo, which will be posted on both the 50+20 Agenda website and is available for the ABDC’s use.

While the objectives included developing and testing a curriculum for the development of responsible leaders for a sustainable future drawing on the outcomes of the collaboratory, and prototyping and disseminating elements of the curriculum, no single curriculum was developed but rather guidance for curriculum design in terms of the message in the video script. Swinburne representatives thought, in hindsight, that it was probably naïve and unrealistic to consider a single curriculum outcome as this defied the point of the project. Hence, the messages offered in the video script were the contribution to the achievement of these outcomes.

The GRLI paper outlines how the collaboratory was designed and the methodology behind the project.

Lessons learned

The key learning for the project team was around the difficulty in changing the Business School without complete management buy-in. Hence the role of the Dean was seen as being paramount, and if the Dean of the School does not believe in the change, it does not matter how hard the faculty staff push in this direction, the change will be blocked as it requires a fundamental shift in commitment in the thinking of the faculty. This, in turn, requires the support of the DVCA, the VC and so forth. The project team’s view was that this is not just about business schools but about management education in the future, academic identity, the idea of the University, and a fundamental challenge to the traditional Business School paradigms that drive the way they operate.

The IPT contribution to management education

The project team saw the messages in the film script and related video as being their contribution to management education – see http://www.youtube.com/watch?v=MMAo3YxXrNo – in addition to the four scenarios that were developed, which can be used in other workshops to help consider these issues.
Introduction
The University of Technology Sydney (UTS) Business School postgraduate programs, led by Associate Professor Christine Burton, developed a project titled Trialling Two Paradigms of Industry Partnered Management Education.

The University was in the process of revising its core postgraduate programs and exploring new programs. As part of this program redesign, UTS Business School looked at the alignment of its core strengths with the University’s mission and vision. The UTS Business School’s unique position in the Sydney marketplace is as a ‘can-do’, industry-connected, practice-oriented institution. In ‘owning’ this space and to stay ahead of the competition, UTS Business School needed to better understand its offering to business and how it could make itself an indispensable education partner for industry. This was especially urgent given that many corporations, disenchanted with what business schools were supplying, had developed their own internal universities (Rademakers 2005) and the exclusivity of universities as transmitters of knowledge came under pressure with the development of Massive Online Open Courseware (MOOCs).

At an international level, the contribution of business education and the type of graduates produced was scrutinised following the global financial crisis. For business schools to be sustainable and relevant to corporations, more complex approaches to problem-solving and decision-making need to be embedded within the courses they offer. These offerings included developing soft skills of managing others and self-management, communication skills, influence, teamwork and collaboration as well as leadership. The integration of soft and hard skills meant that traditional ways of problem-solving could be critiqued and alternative and emerging perspectives brought to the forefront.

The opportunity to participate in the Future of Management Education initiative and associated IPT program presented a channel through which UTS Business School could tackle the complexities of contemporary business education challenged on many fronts by the rise of corporate universities, MOOCs and the mistrust generated by the perceived role of business education in contributing to the global financial crisis.

Objectives
The objectives of the IPT were developed on the premise that a can-do business school, such as UTS, would have experiential learning as fundamental to innovative practices. In searching internationally for best practice, UTS Business School noted that Fox School of Business (Temple University, Philadelphia) had been delivering a consultancy approach to business education through its capstone subject Enterprise Management Consulting (EMC) for 10 years using a unique methodology that seemed more authentic to any we had identified previously.

Fox School of Business’s subject aimed to bring a holistic bearing to problem-solving in dynamic situations for clients that range from start-ups to large not-for-profits to branded global companies. UTS Business School recruited Associate Professor Jim Hutchin from Fox School of Business to assist in adapting EMC to an Australian environment.

The specific objectives of the project were to:

- develop the prototype subject Integrated Business Consulting (IBC) incorporating academics and business advisers working together for a range of industry clients and working globally across business schools to develop best practice methodologies
- develop the prototype U:Lab approach to innovation and entrepreneurship as a methodology that will inform a number of subjects in a new postgraduate degree
- provide a proof of concept that innovative approaches are sustainable for business schools in the long-term
- discover how global business schools can work cooperatively in spreading a unique methodology in live consultancies.

These objectives arose from a nascent collaboration that UTS Business School was beginning to pursue with Fox School of Business in investigating a disruptive model of business education which challenged the dominance of case study approaches to management education and extended the current concepts and practice of live case studies and consultancies with industry. While it is common practice for students to undertake live case studies, these are usually led by academics and tend to replicate the Harvard case study method but in a live situation. In collaboration with Fox School of Business, UTS recruited project managers drawn from industry (usually at the C-Suite level and often on retirement track) who guide, mentor and work alongside students to solve a complex industry problem sourced from industry. While the approach is anchored by an academic, project managers...
act as support resources for students and academics. UTS sourced additional industry advisers to give robust feedback to students at certain points in the subject. This model is a distinguishing feature of the Fox/UTS live consultancies but is intensive to administer and its sustainability for UTS was uncertain.

Methodology
The methodology for the pilot project was to:

- consult with global corporations, start-ups and not-for-profits in identifying suitable projects for students and businesses to solve
- identify suitable problems that may be solved across two or more business schools working collaboratively in different countries (for example, start-ups that wish to enter foreign markets; global companies that have global common issues)
- invite industry representatives to assess student solutions as they progress
- provide a testing ground for corporations and companies to evaluate the attributes of students in problem-solving, and aptitudes for innovation and entrepreneurship.

Implementation and emerging challenges
Because this was a pilot project and needed a proof of concept, UTS invited targeted students to participate in the new subject ‘Innovative Business Consulting’. Eighteen students (3 teams of 6) were selected on the basis of their Grade Point Average and were drawn from across all postgraduate programs: MBA, EMBA and specialist Master of Business degrees. They were further filtered on the basis of ‘time to completion’ of the degree; those chosen were in their final one or two semesters. This ensured that all students had knowledge in at least one or all areas of accounting, finance and marketing which were deemed critical if they were to engage in real problem solving.

The subject was team-based using a tool called SPARK which monitored the process of student groups. Students self-assessed their own contribution and the contribution of their teammates. The assessment can be viewed by all team members and the academic; academics can monitor and intervene where any indication of ‘free riding’ seems to occur but the expectation is that students police their own performance before a critical event occurs.

Three clients, including a start-up/early stage company, a large not-for-profit company and a global brand, were chosen for this project giving students exposure to different types of businesses with different types of problems. Selecting clients was a prolonged process where UTS needed to gain the client’s trust and ensure they were prepared to share sensitive information. Clients understood that this was a trial project and also understood the importance of the problem being a significant one for them.

Students self-assessed their own contribution and the contribution of their teammates.

Live cases require considerable thought in relation to legal issues that need to be dealt with as simply as possible while not exposing the business school, clients or students to risk. Nonetheless, UTS found that issues such as non-disclosure, intellectual property, conflicts of interest were complex. Academics from the Management Discipline Group were recruited to shadow Jim Hutchin with a view to succession. The intent was to build confidence among these targeted academics and to provide a research opportunity, believing that there were two ‘built-in’ research components in this subject: the development of a case study from the work undertaken which could then be reported in the management literature; the development of a pedagogical paper on the impact of experiential learning using this methodology. Recruiting academics proved particularly challenging.

The second challenge was in relation to the recruitment of project managers. UTS sought people who had a willingness to share their knowledge, expertise and business experience, an ability to listen and to take advice from the client and other industry advisers who are brought into the project at two stages in the subject, a generosity of spirit and a genuineness to help students become the best they could be and a commitment to stay the course of the subject with little commensurate payment for the time invested. Their role was one of coaching, guiding and ensuring that students had considered all possibilities.

The third challenge was recruiting advisers; they were ultimately recruited from personal contacts in industry. Industry advisers were asked to robustly critique and challenge two milestone student presentations. The first student presentation concentrated on background research: scope of the industry; challenges facing the industry as a whole; particular challenges facing this client; identification of the problem; options for solutions. The second student presentation deeply engaged with the problem and presented strategic solutions. Both presentations were delivered to the client after revisions based on industry adviser feedback. The students were required to present a defensible proposition.
that was challenged by the advisers. Industry advisers, like project managers, needed to be generous and willing to engage with students on a constructive level. Nonetheless, in their professional capacity, these industry advisers were at ease with frank, forthright and uncompromising debate and were expected to bring this to bear in critiquing the work of the students. Students were aware that this was a necessary rigorous process if they were to present back to the clients confidently.

UTS has embedded IBC as a co-capstone subject and anticipates trialling another version of the subject aimed specifically at entrepreneurs.

Outcomes as measured against objectives

The prototype subject ‘Integrative Business Consulting’ (IBC) was developed and a range of clients secured. One client was a start-up alternative energy company exploring ways for breaking into a foreign market. Students at UTS worked on this problem alongside students from Fox School of Business. Both concluded similar ways in which the client could expand its product.

At an academic level the global connection was strengthened with two academics visiting Sydney at the commencement of the subject (TL Hill and Jim Hutchin), with Jim Hutchin remaining for the semester.

The subject is now in its second phase of piloting with considerable success and unexpected beneficial outcomes built from the first stage. In revising the flagship Executive MBA (EMBA) program, UTS has embedded IBC as a co-capstone subject and anticipates trialling another version of the subject aimed specifically at entrepreneurs, which will align with the Entrepreneurship Strategy developed in the Executive Education arena of the UTS Business School and which will be offered in the MBA program.

UTS developed the prototype U:Lab approach to innovation and entrepreneurship to a much lesser extent. U:Lab underwent revisions in its operations throughout the period of the grant. The approach to design thinking and entrepreneurship is now embedded in a new one year MBA based on entrepreneurship.

In terms of a proof of concept that innovative approaches are sustainable for business schools in the long-term, sustainability for this type of program within a business school presented significant internal barriers. These were the:

- **costs** associated with running the program in paying a stipend to project managers (three) and the costs associated with industry advisers’ evenings
- **small numbers** in the class compared to other subjects (because this is a hothouse environment of up to 24 students)
- **costs** associated with recruiting clients (mostly in terms of time investment), although this has longer term benefits and is a critical investment if business schools are to be relevant to industry needs
- **cultural shift** within the business school – there was some scepticism over the value of the IBC subject in teaching management education, centring on the ability of academics to engage with industry at a sufficiently deep level to grow projects.

The last point in particular has proved complex and has resulted in significant debate within the Business School. Cost has also been an issue but, as importantly, there was considerable disquiet about the risk associated with potential reputation erosion should students not deliver professional grade results. There was also concern as to whether UTS could maintain a client base. The latter two issues (reputation and client base) have subsided to some extent as academics have seen the results of the projects and understand that the academic involved was both adept at industry engagement and client recruitment and was acutely aware of the risks associated with this type of program.

**UTS is investigating ways to develop a global component of the EMBA that capitalises on the global strengths of each business school**

Discovering how global business schools can work cooperatively in spreading a unique methodology in live consultancies was one of the most successful parts of the project alongside the development of IBC as a flagship subject within its flagship EMBA program. Associate Professor Jim Hutchin joined UTS Business School as the Director of the EMBA program on a three-year contract. The UTS Business School continues to work closely with Fox School of Business in joint client projects and is investigating exchange programs between EMBA students in this subject. The UTS Business School is also investigating ways in which both schools can work together to develop a global component of the EMBA that capitalises on the existing global strengths of each business school.

**Lessons learned**

The value of the IBC program is demonstrated in an accompanying film, which can be viewed at: [http://www.youtube.com/watch?v=I-G4qyVKW8](http://www.youtube.com/watch?v=I-G4qyVKW8), where clients, project managers and students give clear views on what they experienced. Student feedback on the subject was also canvassed through the Subject Feedback Survey.
The student comments were overwhelmingly positive:

- **This subject has been one of the best experiences I have had throughout my education. It has proven to be challenging in the most positive way and I feel that it has delivered on its goals of developing my strategic mindset and analytical capabilities. It was an effective capstone subject that I think will drive the university to greater heights.**

- **As a new subject this was a wonderful opportunity to learn in a truly unique environment. Jim is an exceptionally gifted communicator and his experience in guiding this subject in the Fox Business School context was an immense asset in this first round. Course structure including weekly deliverables and team structure (please see improvements section) is appropriate and reflective of work pressures and co-operative working relationships necessary to succeed in business. The role project managers and mentors provided was vital and the role Jim played in ensuring they were focused and able to provide guidance through the course was terrific.**

- **The course as a whole provided the type of learning experience I have been looking for throughout the EMBA experience but unfortunately have rarely found. By bringing together all the learnings from 10 previous courses and providing an opportunity to apply them to an actual business problem in real time was a first class learning experience.**

- **The ability to gain practical experience with real clients and solving a real problem is the highlight of this subject. The course was well led by Jim Hutchin, a superb lecturer with ample experience to guide students and teams through different problems or issues. The structure of the course seems well balanced course work and practical. The advise r sessions were invaluable to the team for feedback, whilst the support of the PM and mentor was very crucial to the format working. The team would not have achieved the results they did without the support, and expert guidance of mentors and the PM. For a pilot run it was highly successful.**

- **The opportunity to work on a real client brief, with all the political chaos that ensues, with all the complications regarding getting data. Learning to deal with people that perhaps don't want to be dealt with and give news to people that perhaps aren't going to be that happy about what you're saying. Learning to stand up to someone double your age with double your experience, including decades within the organisation that you first googled a handful of months ago, to tell them what's wrong with their organisation, and what you think they need to do about it. Fantastic opportunity - really truly thank you.**

The one standout criticism was the workload. It is unlikely that UTS can reduce the workload and maintain the quality of the subject. Students argued that this subject is ‘worth’ two subjects given the intensity of their involvement. Therefore, UTS acknowledged the need to manage students’ expectations of the workload and that students need to understand the benefits derived outweigh the short-term pain associated with time requirements.

The ability to gain practical experience with real clients and solving a real problem is the highlight of this subject

The project team noted the irony of teaching cultural change (the way we do things here) and experiencing how they bring this about in a business school is salutary. Some saw IBC as a threat to their status as embodying exemplary ways of teaching and failed to recognise that IBC presented a different way of teaching management education not a replacement of some of the effective ways in which academics also practiced experiential learning. The innovative features of IBC were seen as costly and carried potential reputation risk, without considering the additional income accruing to the subject from clients (in future) or the dedication of the project managers and the academic in ensuring that work delivered to clients was of an acceptable standard.

Through its Executive Education offering, UTS aspired to work with companies on a long term and strategic basis, and build a more enduring relationship that extends beyond Executive Education. To create a virtuous circle, UTS Director of Executive Education and Jim Hutchin, and/or the Associate Dean, involved each other in meetings wherever appropriate.

As a result of this collaborative approach, UTS Business School began an interesting and innovative relationship with one of the global consultancy companies which resulted in unforeseen benefits, including the development of a unique partnership with the consultancy company training UTS students for client work. They now train their own high level staff in coaching and mentoring and these people are mentors for the IBC subject as part of their training and host trial presentations for students. The professional environment stimulates a professional consultancy experience that meets industry adviser expectations and prepares students for engagement that goes beyond the classroom. Quite unexpectedly, two of the people with whom UTS worked at the consultancy company are now interested in undertaking a PhD with UTS.

This project highlighted the importance of the intrinsic satisfaction that project managers, in particular, derive from the work they do with students. They are seeking an exchange from the university that goes beyond payment. UTS has sought to retain its talented and committed project managers by offering them unique events, such as the opportunity to network with CEOs. An Adjunct Professorship was offered to one project manager who sits on a number of boards of large not-for-profit companies and offered these companies as
clients. The intellectual stimulation, the opportunity to network with others and the sense of developing young professional minds is critically important to all the project managers involved in the program.

The interesting and innovative relationship with one of the global consultancy companies resulted in unforeseen benefits for UTS

The IPT contribution to management education

The pilot subject contributed to how management education can be crafted in future. It has shown how business schools can be relevant to industry in multi-dimensional ways. UTS Business School’s IBC has become a platform where enduring industry partnerships have been created. While this subject has brought a significant return on investment (time and money), it is highly intensive and, in its current format, will remain boutique. However, the subject becomes symbolic in terms of authenticity in teaching and practical relevance to industry. The format is difficult to imitate because it is reliant on specific attributes personified by individuals employed on the program. This reliance on human capital is also a weakness, particularly in relation to succession planning in an environment that privileges research over engagement and teaching.

Integrated Business Consulting (IBC) as part of the IPT program demonstrated that:

- Experiential education is demanded by students and is of value to industry.

- The unique approach of IBC, where companies and individuals in companies are engaged on a number of levels (from project managers to industry advisers to clients), has an in-built ability to expand. This expansion goes beyond the boundaries of the subject to spread to other areas such as Executive Education, student internship/placements and research engagement.

- Building personal relationships and contacts within industry is critical to the success of the program and underscores how important growing a sense of ‘family’ is between UTS Business School and industry. The seamlessness with which Executive Education and the EMBA can work with industry has proved unexpectedly successful and indicates how industry can move with ease across such offerings.
The aim of the RMIT University’s School of Management IPT project Developing Managerial Skills for the Complex Inter-disciplinary Interface: Management Education as an Experiential Living Laboratory led by Professor Sandra Jones, was to identify the impact of an innovative approach to management education on student learning. The objective of the RMIT IPT was to develop and test a novel and creative approach to management education for undergraduate students designed to cultivate graduates with the cognitive and creative skills to exercise critical thinking and judgements in identifying and solving problems with intellectual independence (AQF 2011).

Objectives
The objectives of this project were to:

• develop a process through which universities could become living laboratories working collaboratively with an organisation
• develop a new form of university/industry partnership to engage management academics, students and industry partners in a joint venture to explore approaches to respond to complex ‘wicked’ challenges faced by industry in a ‘safe-fail’ learning environment
• develop a student-centred learning approach to engage students across disciplines working collaboratively
• have students graduate with the management skills base needed to address the critical emergent issues of businesses operating in complex and changing environments
• facilitate skills development for management educators as designers and facilitators of innovative approaches to management education.

Methodology
The project was underpinned by an action-learning, action-reflection, problem-based methodology that links universities and industry partners. An action-learning, action-reflection, problem-based methodology that links universities and industry partners into a continuous cycle of learning. Learning engagement (Jones 2013) is designed to link theoretical knowledge to industry practice through application and engagement of students, knowledge is shared across disciplines through opportunities for integration of cross-disciplinary knowledge, and new knowledge is discovered from the learning interaction between students, academics and industry to assist organisations to deal with complex issues. This methodology enabled continuous change, modification and development of a proposal for action, lessons learnt for managing complex issues, cross-discipline teamwork skills development and identification of emergent managerial skills as they developed.

This methodology was used to underpin two interlinked cycles of activity. First, the design of the learning activity by management academics working with industry representatives and second, students engaged in the learning process.

Stakeholders involved in the RMIT IPT included students, management educators and industry partners. RMIT engaged an Early Career Academic (ECA) to ‘shadow’ the academic leaders of the IPT. One sessional academic educator was responsible for the group of students engaged in the IPT as well as for several other tutorial groups enrolled in the Strategic Management unit, which provided the potential to identify any difference in the learning experience of the IPT and the non-IPT tutorial groups.

The project team was keen to engage an industry partner who was passionate about partnering with students

Implementation and emerging challenges
The project team found the additional time involved in designing and implementing innovative approaches to management education presented a challenge, particularly in the current climate where the focus is on research outputs by academic staff for the purposes of reward and recognition.

In terms of workload, there was the need to allocate additional time and planning to ensure that:

• internal university policy and systems requirements were met (including obtaining ethics approval for research associated with the IPT)
• all students were treated equitably
• all stakeholders were involved in planning and ongoing communication.

The project team discussed the IPT with several industry partners from the private, government and not-for profit (NFP) sectors. While it was explained that the expectation of industry input would be structured to limit demands on their time, there was an expectation of engaging with students periodically over 12 weeks and being available for a final student presentation of their findings. The project team was keen to engage an industry partner who was passionate about partnering with students and supported the aim of the IPT which was to develop students’ skills in responding to real-world complex problems rather than have students act as consultants who identify a viable solution for the organisation.
Students enrolled in a third year course in Strategic Management – as part of the Bachelor of Business Management and the double-degree Bachelor of Engineering/Bachelor of Business Management – were invited to self-nominate to participate in the IPT. The IPT was limited to 25 students who were required to meet certain selection criteria.

The project highlighted that in addition to discipline knowledge, management educators need to have the skills to facilitate student learning. The IPT highlighted the need to assist students as they develop effective groups, become comfortable with the ambiguity associated with complex real-world problems and seek to use theory as part of a problem-based approach to learning.

A further related challenge was on the additional demands on students. The enormity of the task placed additional pressure on students beyond that of a typical single semester (12 week period) course and led to an increase in student anxiety. Students referred to an increased sense of responsibility in delivering on a project that was so real because it involved a real organisation. In addition, the group-work basis of the larger assessment tasks caused concern for students who were unskilled in developing strategies to respond to ‘social loafing’.

The IPT’s ‘living laboratory’ learning environment needed to use a variety of communication channels between students, between students and industry partners, and between students, academics and industry partners. The issue of what skill sets are required of management academics involved in innovative approaches to management education arose.

In order to overcome the difficulty of assessing student skill development over a single semester, the project team obtained RMIT ethics approval to design and implement a student survey of their experience in the IPT and held several focus groups (with the industry partner, the teaching team and the IPT project team).

Outcomes measured against objectives

The ‘living laboratory’ worked effectively to engage management educators, industry partners and students in a collaborative approach to developing student skills. However, the focus on a complex problem appears to have been less relevant; the emphasis on students using a problem-based approach to a real-life problem with industry input was more important. Given the positive feedback, the design of the IPT has been extended to form a permanent learning design feature of Strategic Management. In Semester 2 2013 an industry partner from the private sector was involved in a similar collaborative Learning Laboratory process and is planned to continue in 2014.

Management educators were positive about the level and form of student engagement across disciplines; however, students were more divided in their feedback. While the management student cohort was positive about the level of sharing knowledge across disciplines, engineering students were less positive. Perhaps the choice of industry partner or the problem identified needs to change to achieve cross-disciplinary knowledge sharing. Further, the project team recognised that a more guided approach by the management educators may be needed to facilitate student exchange of disciplinary knowledge.

The ‘living laboratory’ worked effectively in a collaborative approach to developing student skills

While the difficulty of objectively identifying improvement in student employability skills from one particular IPT is recognised, student self-analysis was positive about the skills they developed in critical thinking and problem solving. This was not the case for self-identification of the development of group-work skills, although students recognised that they had developed negotiation and conflict management skills. Perhaps there is a need to identify the various elements that contribute to positive group work skills.

There was evidence that management educators require new skills sets to facilitate the approach to learning undertaken in the IPT.

Lessons learned

The living laboratory concept forms a strong basis upon which a new form of collaboration between management educators and industry can provide a more authentic learning environment for students. It creates a learning environment that enables students to use theories of management to address strategic and complex issues within a ‘safe-fail’ environment. At the same time, it provides industry with the opportunity to experience and explore the knowledge of new graduate recruits.

Management educators need to be willing to engage with industry to identify the challenges they face currently. Industry representatives need to recognise the importance of engaging with management educators and students as part of a constructive learning and skills development process and commit time to provide detailed information on the challenges they face. This also requires a further move away from seeing students working on problems as virtual consultancies.

While the IPT provided a valuable learning experience with students responding positively to the real-world, problem-based learning environment, the stretch challenge for students requires several adjustments to the design. The additional demands on students suggest that such learning
environments need to be located in the last year of an undergraduate degree, perhaps as a ‘capstone course’, with skills development gradually scaffolded as part of a learning pathway during earlier years of the undergraduate degree. It also suggests that such a learning experience warrants greater credit than a single semester, single unit of study.

The online environment provides considerable opportunities to add value to the face-to-face learning engagement. However, while a technology learning platform and communication software enhances the learning environment, it does not replace the importance of the face-to-face learning environment. Indeed, innovative management education of the kind designed for this innovative trial requires more, rather than less, face-to-face engagement to facilitate skills development.

Innovative management education requires more, rather than less, face-to-face engagement to facilitate skills development.

Management educators engaged in designing and implementing innovative management education opportunities require a greater time allocation, as well as new skill sets, to effectively support student learning. The key challenge of time commitment was identified throughout the IPT as necessary for developing ECAs to be able to design and deliver such a learning approach. The associated graduate advances in skills for emergent complex issues also require more development and evaluation time to allow them to be more broadly applied, industry relevant and funded by universities already required to deliver on many fronts.
7 Forum: Is Borderless Education the Answer?

The IPT judging panel recommended a thought leadership forum for the Australian Business Deans Council (ABDC) and stakeholders on the implications of Massive Online Open Courseware (MOOC) for management education. In this context, the Business/Higher Education Round Table (B/HERT) proposed to the ABDC that a forum be conducted to examine the key issues surrounding the latest online learning technology developments in the education ecosystem. The forum was intended to generate discussion and assist the ABDC to evaluate the utility of such developments and, in particular, the value proposition of MOOCs for business and management education.

B/HERT, the Australian Business Deans Council and Macquarie University School of Business and Economics hosted a national forum, ‘Is Borderless Education the Answer?’ on 6 February 2013. Keynote speakers, Andrew Ng, co-CEO and co-founder of Coursera and Tom Hockaday, Managing Director, ISIS Innovation, addressed a gathering of university business deans and business and industry representatives. The forum looked at what MOOCs mean to the global education community and how they may disrupt traditional learning platforms and what they have to offer to the end user i.e. the student.

The forum looked at what MOOCs mean to the global education community and traditional learning platforms

The following sections are a summary of the Commentary Paper which outlines the presentations made during the ‘Is borderless learning the answer’ forum and which can be found on the B/HERT website at http://www.bhert.com/activities/2013-future-of-management-education-in-australia.

Evolution or Revolution?

Discipline-based knowledge and learning pathways are in constant development. It is the age of integrated, real time learning: accessible at anytime from anywhere. Both the providers and recipients of tertiary education are seeking a return for their efforts. Contemporary skills and knowledge in the pursuit of enterprising endeavour is the prevailing imperative. Therein lays the value proposition!

Tertiary education institutions are required to compete globally. One driver of meeting this competition is to scale-up by collaborating both locally and internationally. Implementation of collaborative initiatives such as MOOCs will involve structural reform, strategic resource allocation, updated governance practice and new IT platforms at the institutional level.

In December 2010, B/HERT produced Issue 29 of its B/HERT News periodical, the title being Entrepreneurship: Creative Construction. What emerged from the articles was the importance of the ecosystem and the positive effects that disruptive change can bring to the individual, the economy and social equity. And so it would appear with the development of MOOCs. It is not content that is endangered here but the context. Virtualisation offers customisation, democratic access and self-empowerment. Disruptive change is not a new phenomenon. Indeed, there is no alternative to change, and MOOCs/online education is certainly not change for change sake.

Management Education – the potential of MOOCs

With Australia pursuing a demand-driven model for its tertiary education sector, the provision of infrastructure is growing steadily as a percentage of both operating and capital expenditure. While recognising the expenditure (capital and operating) required to deliver tertiary education and the costs borne by the student in terms of fees, course materials, living/accommodation expenses, value is an issue for all parties.

Pursuing an amalgam of content in an on-demand/just-in-time world by world-class presenters does have value! And the question of awarding academic credit is increasingly focused on the how as opposed to the if.

In discussing how MOOCs might impact the future of management education, the following issues were considered:

- Compared to professions such as medicine and law, jurisdictional requirements for certification as a manager do not exist.
- MOOCs present a sustainable value proposition for lifelong learning and real time up-skilling.
- MOOCs could force employers to re-evaluate the role of in-house training programmes and/or corporate universities.
- Students can learn at their own pace with interim assessment (mastery learning and the benefits of retrieval practice).
- MOOCs present the opportunity for tertiary education providers to leverage their brand and adjust their value proposition - customised content at scale.
- MOOCs may deliver improved return on capital and reduce the risk of capital employed for tertiary education providers.
- MOOCs allow for improved institutional resource allocation (human capital) and scaled workflow patterns - i.e. an efficiency dividend to multiple points on the value chain.

---

11 The ABDC would like to acknowledge the contribution to this chapter of Christopher Goldsworthy, Asst. Executive Director, B/HERT and Lou Coenen, Lecturer, University of Western Sydney.
• MOOCs offer optionality in the business model and project risk management.
• As technology continues to improve, the online learning context will also improve in terms of the level of interaction and collective learning.

It is not clear whether MOOCs are a disruptive process or a cost effective learning methodology.

Management Education – the vulnerabilities of MOOCs

It is not clear whether MOOCs are a disruptive process (short lifespan and flawed learning mechanism) or a cost effective learning methodology which is capable of imposing fundamental change on the system. Part of the ‘proof of concept’ process will be validation of outcomes. Blended learning is an established pedagogical model that incorporates the acquisition of lifelong learning skills, a framework for individual maturation through the on-campus experience, and the tactility of the teacher/student relationship and the learning environment.

Considerations included:
• As in business there will always be a role for face-to-face interaction and dissemination of content in the education sector.
• The provision of content is easy; it is linking to context that is difficult.
• Technology is simply an enabler; the customer experience is the differentiator.
• Students enter university as dependent learners therefore establishing a floor for retention. As a learning mechanism, point-in-time assessment is effective.
• A continued emphasis on work-integrated learning (WIL) is where knowledge is articulated and applied in a practical and value-adding environment.
• Return on Investment (ROI) is what students base their decision on - what assists their lifelong earning capacity.
• Where does the value of a brand sit in a MOOC world, from the institutional and student perspectives?
• What courses are marketed as a ‘status good’ as opposed to an ‘on-demand’ qualification? Institutions need to choose. Does the perceived value lie at the under- or post-graduate level?
• What trigger points influence the prospective student’s decision – brand, pricing, convenience, network/alumni, mode of learning or other?

• Whilst not ‘bricks and mortar’, there are still infrastructure costs in delivering an online course to 50,000 students. As the content becomes richer and assessment tools are introduced, the complexity/cost of the technology infrastructure required will not necessarily be marginal.

Compete and Collaborate

A changing landscape presents opportunities. The provision of education is not niche but there are ‘white spaces’ in the offing. And so it is that non-traditional providers of education are becoming more common be they consultancies, corporates, recruitment firms etc. One only has to consider the strategic investments that companies such as Seek, The Washington Post and Bloomberg have made to appreciate how fluid the evolution of the tertiary education sector is.

Whilst change can be disruptive, by its nature it offers opportunities for realigning an institution’s value proposition with market incentives. With any dynamic change there is often dislocation between expectations, implementation and deliverables. It is about competitive advantage for all stakeholders (i.e. tertiary education providers, students, employers). Ancillary issues such as intellectual property, social equity, and ethical governance regarding the integrity of MOOC certification need to be given due recognition and consideration by all.

Conclusion: Innovative Adopter or Thoughtful Laggard

Evolving an operational paradigm requires foresight, boldness and quality control. Change from outside the tertiary education system is not being ignored. Indisputably the need for evolution in the delivery of tertiary education and the flow-on benefits were identified some time ago. The levers of social and market incentives are increasing the velocity of this change in the development of online education offerings. Such progress may become exponential with the ever increasing level of digital interactivity achievable.

The possibilities are still taking shape… will MOOCs one day be the iTunes store for tertiary education? The best ‘personal learning environment’ remains the primary consideration for the individual. The capability and availability of MOOCs and online learning are here today and students will seek out what is best for them. It’s not about delivering courses to the masses cheaply - it’s about actually teaching better.

The forum program can be found at Attachment 7. The commentary paper that resulted is available on the B/HERT and ABDC websites at http://www.bhert.com/ and http://www.abdc.edu.au/ respectively. Access to the individual presentations is available at www.bhert.com.
8 Emerging Themes and Recommendations

If a clear message has emerged from this project, it is that the future of management education in Australia lies in its capacity to adapt to a changing economic environment and to shape it through high quality research, an innovative teaching curriculum and deep engagement with business and other stakeholders. It is widely acknowledged that business schools have been largely successful over many decades in preparing generations of graduates for the world of work with specialised discipline knowledge across the functional areas of management in organisations. However, the demands of both employers and students are changing and require an increasing emphasis on ‘boundary-crossing’ skills that build on specialised knowledge but encompass such attributes as collaboration, communication, leadership, problem-solving and critical thinking. In particular, students value opportunities to develop these attributes not just to become more employable but to start their own business and social ventures. The Innovative Practice Trials were designed to put these trends and opportunities to the test, and were accompanied by a MOOCs workshop to explore the role of new learning technologies in this context.

The future of management education in Australia lies in its capacity to adapt to a changing economic environment

Role and impact of the Innovative Practice Trials

The inclusion of the Innovative Practice Trial component in the Future of Management Education project was based partly on recognition of the importance of designing creative, effective and internationally competitive programs and on the desire to adapt tested innovative approaches to the curriculum and education activities of business schools. Each of the three IPTs successfully satisfied these objectives. This final chapter documents the synergies and insights drawn from these trials so that management education and stakeholders can benefit from the results. Specifically, the IPT judges asked the following questions:

1. How do the collective IPT findings answer the question ‘what step changes should those involved in management education make now to transform management education for the future?’

2. How do the outcomes of these three IPTs advance Australia’s productivity agenda in transforming capabilities and human capital, particularly in reference to intangible assets such as entrepreneurial managers, empowered employees, leadership, among others?

This chapter considers the issues that emerged from the implementation of the IPTs and their significance to the review of management education.

All three programs relied on direct business involvement in order to carry out the IPTs. Securing partners to participate in the trials varied among the projects. What emerges from the reports is that for these teaching or research relationships to develop and be sustained, business schools need to be able to articulate clearly why they exist and what they are offering business in today’s educational environment. The perception within the corporate sector is that the expertise available from the business school, or the insights to be gained from knowledge exchange, has somewhat diminished. A convincing case to potential business/industry partners had to be made in each instance and it had to be presented clearly and succinctly. The case needed to:

• overcome a lack of understanding about business school curriculum objectives or research interests
• dispel any perceived gap between business and business education
• demonstrate a highly responsive demand driven approach that related directly to business needs.

What did attract attention was a focus on innovation in management and management education where future leaders are developed from shared knowledge across disciplines and are taught from multiple perspectives, including the role of design thinking. Developing a convincing case was considered essential.

A focus on innovation in management education

where future leaders are developed from shared knowledge across disciplines and are taught
from multiple perspectives

There was consensus among all participants about the value of experiential learning. This approach was seen to offer discernible educational benefits to the students and business outcomes to the partners. Experiential learning is a process that allows students to become involved in projects that are both meaningful and relevant. This type of approach was also described in the ‘collaboratory’ discussions where industry representatives preferred content to be less conceptual and more situational and environmental specific to facilitate innovation while remaining grounded. The educators’ value is not in the content but in enabling and exploring opportunities – the methods of knowledge generation and impact. Participants recommended using material that was immediately valuable in informing business strategy and behaviour. Of particular interest were the new alternative business models that allow for a greater intersection of business and society. There is a need in management education to focus on economic, social and environmental ‘shared value’ and a role for some degree
of intuitive reasoning as well as rational analytical concepts in decision-making. This approach was used in the collaborative for the development of the alternative scenarios describing future business schools.

Coincidentally, the experiential learning exercises in the two IPTs resulted in precisely what the Swinburne University of Technology collaboratory called for, i.e. the testing of an educational framework that taught students to generate solutions of sustainable value in a socially responsible manner. However, the two practice based IPTs identified some common challenges in designing and implementing innovative trials to management education. Foremost was the difficulty in recruiting academics to become involved. The investigators attributed their colleagues’ reluctance to take on additional educational responsibilities to the heavy emphasis on research outputs, which is what universities increasingly recognise and reward. Management educators were hesitant to take on any further work which also required specific skill sets. Both IPTs required collegial assistance in advising and mentoring practice students.

These two specific examples represent a wider problem for business schools because of the apparent incompatibility of management education steeped in practice and university priorities that often revolve around a strong research agenda, though such incompatibility need not be the case. Federal funding models and research measurement exercises tend to reward research outputs more generously than teaching programs despite the fact that both areas are core components of business education. However, the two IPTs demonstrated the possibility of successfully integrating innovative teaching models with active research methodologies and outcomes.

Transforming management education

The experiential learning programs of the UTS- and RMIT-led IPTs achieved their objectives (chapters 5 and 6). Student feedback was very positive, particularly because of the opportunity to have real live issues to solve; business and industry engagement with the business schools was strengthened by the collaborative activities. Both business schools intend to continue with the program within their respective management education programs. In addition, they have research outcomes and case study material that allows an evaluation of the IPTs.

The collaboratory discussion, led by Swinburne University, compared some of the different attributes of business and business schools. In particular, they contrasted what underpins the two career paths: the academic relies on subject knowledge and the business executive relies on business knowledge combined with outstanding facilitation skills. They emphasised that good group facilitation skills were essential to hold and manage a collaborative space. The importance of supplementary skill sets also featured in the other two IPTs. UTS academics were invited to participate in order to improve their industry exposure; project managers were sought to coach, guide and support the students. The requisite attributes included a willingness to share their knowledge, expertise and business experience; an ability to listen and to take advice from the client and other industry advisers. Industry advisers were required to robustly critique and challenge two milestone student presentations.

There is agreement that innovative leaders are essential to Australia’s economic competitiveness and prosperity

RMIT also raised the issue of developing the skills of management educators as designers and facilitators of innovative approaches to management education and found that new skills sets are required of management educators to facilitate the approach to learning undertaken in the IPT. The students were overwhelmingly positive in being involved in authentic learning environments in both of these cases. However, they voiced concern about the mismatch between the workload, which was intensive, and the credit points allocated to the subject. This requires review for future programs.

Building competitiveness and prosperity

In referring to the second of the two questions at the beginning of this chapter, some conclusions about how the outcomes of the IPTs advance the national productivity agenda are discussed. Importantly, there is agreement from business and business schools that innovative leaders are essential to Australia’s economic competitiveness and prosperity, as well as environmental sustainability and social impact. The development and education of such leaders is the responsibility of the business schools. As the business world becomes increasingly complex, there is every indication from this review that business welcomes the contribution of business schools. The caveat, however, is to articulate convincingly how management education models will address the high tech, increasingly globalised environment that is in play, together with the need to operate in an interdisciplinary, inter-professional setting. The hurdles associated with developing a management education framework that is both responsive to business and satisfies higher education accountabilities are confronting. Nevertheless, through continued engagement and consultation with business, which was demonstrated through the successful IPTs, management education programs can ultimately deliver the leaders that are demanded by the business sector. It is this collaborative process in management education leading to increased
leadership capacity that will ultimately transform the nation’s productivity and future growth and prosperity.

More specifically, the step changes that emerge require business schools to take on board the issues raised repeatedly in this review. Business generally champions innovation, relevance and practice to be high on the teaching agenda. Their commitment and active involvement is critical for future success, and business schools must respond accordingly and become indispensable educational partners for business and the wider community. Once again the right balance must be achieved and the cultural divide, the ‘knowing’ and ‘doing’ gap, that exists between academia and business must be addressed and hopefully overcome.

Business generally champions innovation, relevance and practice to be high on the teaching agenda

Recommendations for the Future of Management Education

No single set of recommendations can reflect the diversity of approaches among business schools in Australia, let alone internationally, but some salient points do emerge from this project for further consideration by industry, government, universities and, above all, by business schools themselves. Our overall recommendations are as follows:

1. Business schools need to dispel any misunderstanding or confusion about their role and set out clearly and succinctly what they are offering business and the community in today’s educational environment. They need to constantly reposition themselves as the experts in educating and developing globally oriented future leaders.

2. Business schools and industry must deepen collaboration to develop innovative models that are experiential and relevant and promote the interaction of business and society. Management educators must have the necessary skill sets to design and facilitate creative approaches to education delivery and the learning experience.

3. Business schools should take the initiative and develop, in collaboration with partners, leading edge management intervention programs which combine analytical with integrative and design thinking, and infrastructure that connects technology and online resources in award programs and executive education.

4. Business schools must recognise that graduate attributes can no longer be confined to areas of specialised knowledge but must also include the broader boundary-crossing skills of collaboration, problem solving and entrepreneurial thinking that are essential for transformational approaches to management.

5. Business partners need to engage actively with business schools in all aspects of management education including teaching, learning and research activities and, in the process, grow the competitive edge that characterises a knowledge economy. These innovative models will also maximise students’ educational experiences.

Proposed next steps for ABDC

There is a number of steps that can be taken in the short to medium term to broaden discussion, promote diffusion and adoption of new ideas and anticipate new developments in business education and its changing external environment. Such steps, subject to agreement and available resources, might include the following.

1. Commitment to intelligence gathering and dissemination of best practice in innovative and experiential learning

Disseminate key outcomes of this initiative for consideration and possible adoption by ABDC member schools, with project and IPT directors to present and discuss key outcomes for business schools and ABDC Teaching and Learning Network members to consider ways of implementing key learnings.

Facilitate information sharing, promotion and dissemination of best practice in innovative and experiential learning in business education and research.

• Encourage ABDC members to share and promote innovative developments and best practice in business education and research, for example, presentation of successful innovative case studies at ABDC and network meetings, publishable video-clips and resources.

• Develop an ABDC online resource portal and newsletter to collate best practice resources in business education and research for awareness-raising, engagement and implementation.

2. Strategy for business and community engagement

Further establish links and alliances with key industry bodies to drive key strategic action items, as follows:

• Establish a network of deans to develop and implement a relevant industry engagement strategy, including promoting the role and contribution of Australian business education and research, within our universities, to government, industry and the community.

• Establish links with key industry bodies to not only improve perceptions of business education and research, but to identify common issues and explore ways to jointly achieve shared key objectives including joint initiatives,
such as developing a repository of relevant Australian case studies or excellence awards for industry and community engagement.

- Support initiatives with key industry bodies to increase experiential learning opportunities and ultimately improve the work readiness of university graduates, expand their job opportunities as well as enhance outcomes for employers. For example, ABDC will be a key participant in the new Universities Australia led-initiative with business industry groups to increase work integrated learning opportunities.

3. Promotion of excellence in business education and research

Explore ways to support excellence of the research function, curriculum development and teaching delivery in Australian business schools including encouraging and benchmarking industry engagement, relevance and experiential learning.

- Encourage a more comprehensive model of measuring impact of (and improving) business research. Consider developing a paper to identify core infrastructure required to support quality business research including succession planning recommendations to address issues of an ageing academic demographic and a shortage of PhD business graduates.

- Consider developing a model to identify core infrastructure required for innovative technology and disruptive learning and teaching techniques that better support analytical, problem-solving and experiential learning opportunities.

- Support three networks to address ABDC strategic priorities in research, learning and teaching and international education including key initiatives, such as developing a learning and teaching resource portal and maintaining an ABDC Journal Quality List.

- Support members to effectively meet national higher education standards through setting business discipline-specific learning standards. Subsequently consider assisting member schools with external benchmarking of student learning outcomes against these standards.

The ABDC’s Future of Management Education initiative has clearly highlighted the role of innovative leadership and management in Australia’s future economic prosperity, environmental sustainability and social progress. On this key message business and business schools are in complete agreement. The report has also identified the important challenges for business schools in both shaping and adapting to a more complex, globalised environment with new interdisciplinary and inter-professional educational models. These challenges are confronting but, as the IPTs demonstrated very successfully, through engagement with stakeholders, imaginative curriculum development, technology deployment and experiential learning, management education programs can deliver the leaders that are demanded by business and the community. It is this collaborative process in developing management and innovation capability that will transform Australia’s long-term prospects.
References


Winocur, S & Coenen, L (2013), The Virtual University: Where to go from Here? in E Evans, R Burritt & J Guthrie (eds), The Virtual University: Impact on Australian Accounting and Business, Centre for Accounting, Governance and Sustainability and the Institute of Chartered Accountants Australia, Adelaide/Sydney.
Attachment 1 – 
Future of Management Education Scoping Paper

Richard Hall
Renu Agarwal
Roy Green

March 2012

The Future of Management Education initiative is being undertaken by the Australian Business Deans Council with funding support from the Department of Innovation, Industry, Science, Research and Tertiary Education (DIISRTE) under its Workforce Innovation Program.

The Scoping Paper will be the basis of a broad consultation exercise which will encompass two workshops with business leaders in Sydney and Melbourne. The initiative proposal was supported by key industry and professional associations, including AIG, B/HERT, ICAA and Society for Knowledge Economics, and now has the additional participation of the BCA, ACCI, AIM, CPA Australia, AHRI, APESMA, AMI and the Australian Business Foundation.

The consultation exercise will be followed by a call for expressions of interest by business schools to participate in ‘innovative practice trials’, which enable the development and delivery of new curriculum and learning concepts. The results will be summarised in a final report in 2013 with a view to disseminating and diffusing best practice in business and management education.

A Project Steering Committee is in the process of being established with key stakeholders in the initiative, including DIISRTE, and a Project Management Group is also being established, comprising interested ABDC deans and the Lead Project Consultant.

Roy Green, Project Director (University of Technology Sydney)
Richard Hall, Lead Project Consultant (University of Sydney)
Renu Agarwal, Research Consultant (University of Technology Sydney)

Purpose and overview of the scoping paper

This Scoping Paper will provide a brief introduction to some of the key issues related to the future of business and management education in Australia. It is designed essentially to stimulate debate and provoke the identification of further issues, including those affecting us in a global context, rather than to provide a comprehensive or definitive overview.

While the rationale for an assessment of the challenges facing management education in Australia might be framed in different ways, reflecting the different interests of stakeholders, this paper grounds these challenges primarily in the need for Australian management education to better contribute to enhanced management and leadership capabilities. It is clear from international research and experience that these are the basis of improved business and organisational performance and productivity, which in turn contributes to long-term economic prosperity and social cohesion.

The paper is a response to the 2008 Review of the National Innovation System, Venturous Australia, which noted the ‘challenging range of strategic, operational and integrative competencies required to lead innovative businesses’ and argued that ‘the capacity to develop these competencies needs to be expanded in Australia’. The Review suggested that, ‘Deans of business schools could consider leading a discussion on management education and its role more broadly in education, training and innovation’ (Cutler 2008: 57).

The paper also builds on two Australian Government sponsored research reports on management and workplace innovation – a 2009 report on management practice and productivity, Management Matters in Australia – Just how productive are we? (Green et al 2009) which was part of a global study of 16 countries, and a further 2011 report on high performance work and management systems, Leadership, Culture and Management Practices of High Performing Workplaces in Australia (Boedker et al 2011) which has provided impetus to a broader national debate on the ‘workplace of the future’.

‘Management education’ is understood broadly to encompass education and development for managers. While many providers contribute to formal management education and while most management education is provided informally, on-the-job, in-house or through various short courses and seminars, the primary focus of this project is management education provided by university business schools. This includes not only MBAs, postgraduate coursework degrees and executive education activities, but also for many business schools undergraduate programs and various outreach, collaborative and business engagement activities.

Similarly, while the customary focus for business and management education programs has been management and leadership in private sector corporations, it is recognised in this paper that these programs must also encompass management and leadership in public sector, community and not-for-profit organisations. It is also recognised that management education takes place increasingly in a global context, and more specifically for Australia in the context of the ‘Asian Century’.

The paper is structured as follows:

Management Performance and Capability

Innovation agenda: this section summarises key contributions to the development of an innovation agenda for Australia which have informed recent public policy initiatives and research focussing on organisational innovation.
Management capability: while there has been little attention to Australian management capability since the 1995 Karpin review, the evidence in this section suggests that many of the issues remain salient today, with new challenges emerging.

The Role of Management Education

The relevance of MBAs: in recent years there has been a sustained debate about the relevance, value and purpose of MBAs. This section reviews that debate and highlights some of the ways in which MBAs might need to be reformed and reinvented.

Role of business schools: business schools are actively considering their identity and mission and, in some cases, reviewing the focus of their research, education and engagement activities.

The environment for business schools: this section overviews some of the environmental conditions under which business schools operate now and in the future, including the role of institutional, regulatory, competitive and technological influences.

Engagement with business: there have been widespread calls for business schools to deepen their engagement with business, but there is also much to be gained from a deeper engagement of business with business schools. This section also considers the role of executive education in driving research and innovation.

Management education in Australia: the limited evidence on the quality and effectiveness of management education is reviewed in this section. Despite examples of excellence, there remains considerable scope for improvement in the quality and relevance of the education and development offered by business schools.

Firm and sectoral management development: the data and evidence reviewed in this section suggests that, overall, Australian managers would benefit from greater participation in and engagement with business and management education.

Innovations in management education: innovations are occurring but will need to be intensified across program content and curricula, teaching and learning methods and partnerships and interactions with businesses and other external stakeholders. This section also notes innovations at some of the world’s leading business schools.

Conclusion and Key Questions

Key questions for the future of management education: this section summarises the debates and evidence relating to trends and opportunities in Australian management education, and it poses a series of questions that business schools and their industry and broader community stakeholders might fruitfully address.

Management Performance and Capability

While Australia was one of the OECD leaders in productivity growth in the 1990s, it slipped back in the early 2000s to being a laggard (Eslake 2011). This was a key factor in the setting up by the Australian Government of the Review of the National Innovation System, led by Dr Terry Cutler, which noted that ‘Australian productivity went from growing substantially faster to growing substantially slower than the OECD average’ (Cutler 2008: ix). As we can see from the data set out in Appendix 1, this productivity slowdown has major implications for the competitiveness of Australia’s trade-exposed industries and services, especially in the current context of a commodities boom with its associated terms of trade and exchange rate effects.

Figure 1: Multifactor Productivity based on hours worked 1995-2011

There is a number of drivers of productivity growth including investment in new technologies and skills, infrastructure development and regulatory reform, but it is increasingly recognised that management and innovation capability in enterprises is critical to creating long-term growth and jobs. While the World Economic Forum’s most recent Global Competitiveness Report 2011-12 identifies Australia as an advanced ‘innovation-driven’ economy, ranking 20th out of 142 countries for overall global competitiveness, it is instructive to note that Australia ranks comparatively poorly on innovation, technological readiness, business sophistication, infrastructure and goods market efficiency (WEF 2012: 102).

Innovation agenda

However, in recent years in Australia, a series of reports and government initiatives have contributed to an emerging innovation agenda. As well as the Review of the National Innovation System, the reports have included sectoral studies of the automotive, TCF and pharmaceutical industries, and reviews of the CRC program and Australian Higher Education. In response to these reports, the Government in 2009

The *Powering Ideas* report highlights and seeks to address Australia’s ‘long-term weakness in business innovation and in collaboration between researchers and industry’ (Australian Government 2009: 4) by promoting seven National Innovation Priorities. Most have direct implications for higher education: funding for ‘high-quality research’; a strong base of skilled researchers; the dissemination of ‘new technologies, processes and ideas’; encouraging a ‘culture of collaboration’; and developing ‘international collaborations on R&D.’ While they also have implications for the approach of business schools, the emerging focus of *Powering Ideas* on innovation at the enterprise and organisational level is perhaps the most significant dimension of the innovation agenda that will drive management education priorities in the near future.

The Cutler Review of the National Innovation System noted that ‘many government workplace and innovation programs in Australia are directed at technological or scientific innovation while only a few are directed at strengthening innovation management inside organisations, including leadership and culture… The challenge is how best to promote successful adoption and diffusion of high performance work systems in both the public and private sectors’ (Cutler 2008: 58). In its white paper *Powering Ideas*, the Government signalled that innovation policy would take up the challenge of developing management and innovation capability at the enterprise level:

One future focus of the Australian Government’s industry and innovation policies will be on building innovation capacity and performance at the enterprise level… Government support for business innovation… must recognise the complexity of the innovation process and the different forms that innovation can take. (Australian Government 2009: 44, 45)

The white paper emphasised that innovation means more than public research or business R&D, important though these are. It increasingly denotes a broader concept of ‘organisational innovation’ which includes:

- Development and adoption of new business models
- Improved technology absorption and integration
- Agile, engaged and collaborative workplaces
- Cultivation of workplace, enterprise and sectoral innovation which is incremental and continuous as well as breakthrough
- Innovation in all sectors and industries — low tech as well as high tech, services as well as manufacturing, small as well as large
- Openness amongst managers and decision-makers to diverse sources of knowledge and creativity
- Stronger, deeper and broader collaboration, networking and knowledge-sharing between firms, public agencies and educational and research institutions.

**Management capability**

The 1995 Karpin Report highlighted the significance of management capability and development for company performance. The report emphasised non-technical dimensions of management and the key role of innovation and creativity, people management, communication and negotiation skills, and change management. In its 28 recommendations the Report advocated a national approach to the development of an ‘enterprising culture’ based on entrepreneurship, leadership development, enhanced diversity management, the implementation of a management competencies framework, and various improvements to management schools and management education. IBSA’s (2001) systematic evaluation of the implementation and impact of the Karpin Report recommendations suggested that the implementation of the recommendations has been ‘patchy’ and it is notable that where some progress has been made, it has typically been the result of ‘market forces’ rather than coordinated national implementation.

The IBSA report indicated that many of the shortcomings in Australian management capability identified in Karpin are still relevant today and have yet to be addressed. The interest in renewing the effort was raised most prominently at a Business/Higher Education Roundtable conference in 2007 where ‘an alliance of senior industry representatives and educators is pressing for a comprehensive review of business education to align it with the corporate landscape of the 21st century’ (*Australian Financial Review*, March 19 2007), on the basis of an influential report by the Business Council of Australia and Society for Knowledge Economics (BCA/SKE 2006).

In addition to noting the issues and recommendations in the Karpin review, the IB SA report identified nine areas where further challenges have emerged or deepened since the report’s publication:

- Leadership: ‘The short-term approach of leaders to the businesses they command [sic] is seen as a major problem’
- Sustainable development: ‘…a prominent issue in 2008, it has lost its prominence… since the global financial crisis’
- Innovation, entrepreneurship and ICT: ‘Australian has not been very successful at building a large cohort of world class innovation-based organisations, outside the resources sector’
- Management education: ‘…business schools are out of touch with the real and practical needs of the management community…’
• Diversity: ‘…little progress has been made in the past 20 years and… the situation is not acceptable’

• Global influences: ‘…there was criticism of our poor skills in languages other than English, and in understanding foreign business cultures and how to manage ethical dilemmas in other cultural contexts’

• People management: ‘…commentators continually stressed that people issues are the biggest challenge for managers and executives’

• Risk and volatility: ‘…there is more uncertainty in the business environment now than ever before…’

• Australian demographics and culture: ‘…the age-old challenge of creating effective workplace cultures, remains a critical one for organisations. With generations Y and Z in the workforce, this challenge takes on new forms…’

The report Management Matters in Australia: Just how productive are we? (Green et al 2009) which benchmarked Australian manufacturing management in 18 dimensions of performance against 15 other countries, found that Australian managers lagged their counterparts in a number of these dimensions, especially people management and ‘instilling a talent mindset’. While they generally measured up in large international firms where the calibre of management practice was uniformly high across all countries in the study, they lagged most in smaller companies and in subsidiaries with limited plant autonomy. Poor management calibre was closely associated with low educational attainment and it was noteworthy that Australia has one of the lowest proportions of tertiary qualifications among its managers of any in the international sample and that managers tended to overrate their own performance.

The report confirms the finding of other studies (Work Foundation 2005) that even a small improvement in management performance has a major impact on productivity and other measures of firm performance. For example, a single point increase in the 5 level management scoring grid is associated with an increase in output equivalent to a 56 per cent increase in the labour force or a 44 per cent increase in invested capital (Green et al 2009: 14). This finding led the authors of the global overview to conclude that Governments can play their part in encouraging the take-up of good management behaviour and that ‘doing so may be the single most cost-effective way of improving the performance of their economies… Relentless improvement in educational standards is also essential. Better-managed firms need more highly skilled workers and they make better use of them, while better educated managers will be a key component of the performance transformation’ (Bloom et al 2007: 10).

In sum, the Australian Management Matters study has significant implications for the discussion of the future of business and management education, reiterating the concerns of the earlier Karpin Report with its finding that Australian firms were much weaker in people management than operations management. In particular, these firms lagged in advanced human resource practices, including attracting, developing and retaining talent, and in identifying innovative and practical ways of developing their human capital to improve performance and add value to organisations.

A further report by the Society for Knowledge Economics on Leadership, Culture and Management Practices of High Performing Workplaces in Australia, based on a study of 78 companies and more than 5600 employees in the services sector, found that high-performing workplaces ‘prioritise people management as a key priority, involve their people in decision making processes; are more responsive to customer and stakeholder needs; encourage a high degree of
responsiveness to change and learning orientation and enable their staff to fully use their skills and abilities at work’ (Boedker et al 2011). As a result, they were up to 12 per cent more productive and three times more profitable than their peers, and performed better in many ‘intangible attributes’ such as encouraging innovation, leadership and a fair workplace environment.

The report reinforces the fundamental point that improved people management skills, including the constructive engagement of workforces, will be critical to the development of high performance workplaces. The study identified five management practices associated with such workplaces:

- Higher levels of responsiveness to changes in stakeholder and customer networks
- Higher levels of employee participation in decision making processes
- Higher levels of behavioural and skills flexibility in employees
- Good use and quality of information, communication and technology
- Excellence in attracting and retaining high quality people

The significance of the SKE report does not just lie in its analysis. The foreword cites the Productivity Commission’s recognition that ‘Whatever the measurement challenges, an increase in overall productivity depends on the performance of individual firms, and on the competitive pressures that results in better performing firms and industries prevailing over others’ (Productivity Commission 2010). Consequently, it states, ‘This report is a call to action. It provides clear evidence that improving Australia’s productivity – or effectiveness at work and performance of our workplaces – is and will be largely a function of our commitment to develop leadership and management capabilities across all organisations in our economy. It is time to invest in this vital and undervalued lever of Australia’s productivity performance.’

Likewise, Booz & Co’s Global Innovation 1000 study of the world’s biggest R&D spenders found there was a more statistically robust relationship between firm performance and the strategic alignment of culture and corporate goals than with R&D spending, however measured. The study noted that the elements that make up a truly innovative company include ‘a focused innovation strategy, a winning overall business strategy, deep customer insight, great talent, and the right set of capabilities to achieve successful execution’. However, the study went on to point out that ‘more important than any of the individual elements… is the role played by corporate culture the organization’s self-sustaining pattern of behaving, feeling, thinking, and believing – in tying them all together’. The key problem is that in only about half of all companies surveyed does corporate culture support their innovation strategy, and about the same proportion report that their innovation strategy is ‘inadequately aligned’ with overall corporate strategy.

The data from the Booz & Co study clearly show that ‘companies with unsupportive cultures and poor strategic alignment significantly underperform their competitors’.

It concludes that if more companies could gain traction in closing both the strategic alignment and culture gaps to better realize these goals and attributes, not only would their financial performance improve, but the data suggests that the potential gains might be large enough to improve the overall growth rate of the global economy.

Finally, the Australian Institute of Management’s 2012 Australian Management Capability Index further highlights areas where Australia’s management capability profile is in need of upgrading and development. Based on senior managers’ self-assessment of capability across ten drivers of management capability, the study of 252 respondents from a range of private and public sector organisations resulted in an overall management capability score of 71.1 out of a possible 100 (see Table 1). However, the areas where Australian management is most clearly under-performing in this study are people management, visionary and strategic leadership, innovation and organisational capability, which again resonates strongly with the findings of Karpin as well as the subsequent studies referred to above.

The Karpin Report also called on Australian management to develop a stronger global orientation and to develop greater cross-cultural skills critical for increasing engagement with Asian markets in particular. AIM’s capability index suggests that there is still much work to do on this front: when the 10 drivers of management capability are disaggregated into their 47 subcategories, it is revealed that Australian management scored lowest (by some margin) on the subcategory: ‘Management demonstrates an international/ global perspective and has a good understanding of global markets and global thinking’. The average score on this item was just 52.0.

It is clear that Australia is facing a major productivity challenge and that building management and innovation capability, particularly at the organisational and enterprise level, will be key to meeting that challenge. The evidence suggests that Australian management can make a major contribution to the development of innovation, productivity and organisational performance. Since the landmark Karpin Report in 1995, progress in improving management capability across Australian organisations has been patchy and new challenges have emerged, especially in strategic leadership, people management and the management of innovation and creativity. The next section considers the role of management
education in meeting the needs for enhanced management capability, greater innovation and improved economic performance.

**Table 1: Australian Management Capability Index 2012**

<table>
<thead>
<tr>
<th>Category</th>
<th>Capability Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrity and corporate governance</td>
<td>85.7</td>
</tr>
<tr>
<td>Financial management</td>
<td>76.8</td>
</tr>
<tr>
<td>External relationships</td>
<td>74.1</td>
</tr>
<tr>
<td>ACMI (Average overall score)</td>
<td>71.1</td>
</tr>
<tr>
<td>Results and comparative performance</td>
<td>70.9</td>
</tr>
<tr>
<td>Performance leadership</td>
<td>70.5</td>
</tr>
<tr>
<td>Application of technology and knowledge</td>
<td>70.4</td>
</tr>
<tr>
<td>People leadership</td>
<td>69.1</td>
</tr>
<tr>
<td>Visionary and strategic leadership</td>
<td>68.0</td>
</tr>
<tr>
<td>Innovation—products and services</td>
<td>67.3</td>
</tr>
<tr>
<td>Organisation capability</td>
<td>66.2</td>
</tr>
</tbody>
</table>

*Source: Australian Institute of Management (2012)*

**The Role of Management Education**

Debates about the role of business schools and MBAs have occurred ever since the establishment of the first business schools in the US in the late 19th and early 20th centuries. The seminal Ford Foundation and Carnegie Corporation reports in 1959 argued that business school programs tended to be too narrow, too vocational and lacking in academic rigour. The reports advocated a more scholarly and ‘scientific’ approach to the development of business school curricula and recommended that business schools base themselves more clearly on the traditional model of academic disciplines. A stronger emphasis on analytical courses, research, theory-based scholarship and alignment with the established disciplines of economics, statistics, social psychology and applied mathematics resulted (Datar et al 2010: 76). The growing tendency for business schools to value academic rigour set the context in which, over time, business schools and their MBAs would come to be criticised for a lack of relevance.

**Relevance of MBAs**

In recent years there has been extensive debate as to the role of business schools and management education and, in particular in relation to the relevance, value and purpose of the MBA. These debates have crystallised a number of recurrent themes. MBAs (and, to some degree, management education more generally) have been criticised for being:

1) too focussed on technical skills to the relative exclusion of generic/soft skills and attributes
2) too focussed on narrow views of the role of business (short-term profit maximisation and shareholder value) to the relative exclusion of social considerations
3) too fragmented or segmented into technical areas that are not sufficiently integrated
4) too universalist in the assumptions of the application of models, concepts and theories to diverse contexts
5) too theoretical and lacking in business relevance in the sense that what is taught is not sufficiently attuned to current and future business problems.

The first criticism, in particular, was central to the Porter and McKibbin report (1988) in the US which argued that business schools needed to improve their teaching of management, leadership and other interpersonal skills. Most criticisms of management education in Australia have also highlighted this alleged shortcoming. For example, several reports and submissions over the past decade have documented considerable employer dissatisfaction with Australian graduate skills (ACCI 2002, BCA 2006, BIHECC 2007). Generally these claim that graduates lack employability skills or generic skills, amounting to an inability to satisfactorily apply skills and knowledge in workplace and organisational settings. While there is debate as to these employability and generic skills, communication, teamwork and problem-solving skills are routinely mentioned as is the ability to manage change and demonstrate dexterity across different business contexts.

Most recently the BCA has argued that:

The challenges involved in adapting to new and changing workplaces… require effective generic skills. Generic skills including communication, teamwork, problem solving, critical thinking, technology and organisational skills have become increasingly important in all workplaces… These are the skills that enable individuals to build effective working relationships and undertake collaborative tasks and projects. These skills equip individuals to fully utilise their discipline-specific knowledge and technical capabilities in the most effective way. (BCA 2011: 8)

In the US, where the debate about the relevance and value of the MBA has been most pronounced, Bennis and O’Toole (2005) have argued that ‘MBA programs face intense criticism for failing to impart useful skills, failing to prepare leaders, failing to instil norms of ethical behaviour – and even failing to lead graduates to good corporate jobs.’ They attribute these failings to a number of factors:
• The dominance in business schools of the ‘scientific model’ according to which schools and academics measure themselves according to the rigour of their scientific research rather than according to a ‘professional model’ under which relevance to management and business might be more important. The results include an obsession with publishing in ‘A-list business research journals’ which are of limited direct value or relevance to business.

• Professors who are more adept at designing curricula and teaching methodological and scientific rigor than in ‘dealing with multidisciplinary issues in the classroom’. As a result curricula do little to contribute to a better understanding of the complexities which underlie most business decisions, and the ways in which discipline-based knowledge needs to be integrated in order to inform business decision-making.

In Managers, not MBAs, Mintzberg (2004) also argued that too much management education was conducted in the classroom and lacked sufficient attention to implementation and the practice of management. He also suggested that MBA curricula were too tightly focussed on the functions of business rather than on the broader art and craft of management. These critiques echoed some of the earlier criticisms levelled by Pfeffer and Fong (2002) who pointed to a lack of alignment between the skills learned at business school and the impact of those skills on the real world of business.

In their comprehensive review of MBAs, Datar et al (2010) attribute many of the contemporary problems with the MBA to what they call the ‘two cultures’ problem: a business school culture dominated by a concern with rigour which has become estranged from a business culture more concerned with relevance. Their research revealed that while business leaders often complained of the lack of relevance of MBA curricula, this was disputed by most deans. The authors concluded that:

Although examples of relevant research can be readily identified, we believe that more needs to be done to build useful and usable models that bridge the gap between academic business school research and the knowledge needs of practicing managers (Datar et al 2010: 78).

They also concluded that MBAs typically excelled at teaching analytical skills but that this was not sufficient:

Why? Because students learn analysis but not action. They develop skill in attacking problems, but learn little about implementing solutions. They become knowledgeable about business but remain untouched in the art and craft of management. ‘MBA education,’ one dean argued, ‘is creating technocrats, people with a great toolbox who are not able to accomplish the things that organizations need them to accomplish’ (2010: 79)

Datar et al (2010) argue that business schools need to reassess the facts, theories and models they teach (the ‘knowing’ component) and ensure that there is also more emphasis on, and thus a better balance with, the skills, capabilities and techniques of management (the ‘doing’ component) and the values, attitudes and beliefs that inform managers’ worldviews (the ‘being’ component). More specifically the authors argue that, across MBA programs in general, there appear to be eight unmet needs:

• gaining a global perspective
• developing leadership skills
• honing integration skills
• recognising organisational realities
• acting creatively and innovatively
• thinking critically and communicating clearly
• understanding the role, responsibilities and purpose of business
• understanding the limits of models and markets.

Despite the fact that there can be seen to be significant convergence in the many criticisms of business schools, and their MBA programs, the conclusions have been debated and indeed disputed by some. For example, Datar et al make it clear that claims of irrelevancy were disputed by many deans they interviewed. Satisfying demands for relevance is no easy thing. Rubin and Dierdorff (2009) have pointed to certain contradictions surrounding the claims of irrelevancy. They note, for example, that while recruiters call for greater development of the more generic, people skills they continue to recruit largely on the basis of technical skills (Rynes at al 2003). They also note that business school students often appear resistant to learning generic skills, citing a strong preference for the development of the technical skills that are perceived to be most important to hirers (Rubin and Dierdorff 2009: 209).

It also remains the case that MBAs are valued by many employers. GMAC’s 2010 Corporate Recruiters Survey, for example, concludes that according to the survey responses, an MBA is the “gold standard” and “guarantee of quality” as well as a company’s “long-term investment”. The GMAC used Dierdorff and Rubin’s model of managerial competencies (18 factors) to ask employers how they would rate the performance of their MBAs compared to their employees without MBAs in the same roles. The majority of employers reported that their MBAs demonstrated higher or much higher ability in respect of the following competencies:
Innovation and Learning:

Innovation and Intellectual Capital Development:

In terms of relative emphasis, MBA curricula tended to be more heavily weighted to courses focussing on other competencies (managing administration and control, managing the task environment, managing logistics and technology); competencies that are relevant, but less critical to the actual performance of managerial work.

While MBAs might indeed still be relevant, the reasons for their relevance may have been changing. A number of commentators and researchers have noted that media rankings of business schools and MBAs programs exert a significant effect on student choice and business school policy and curriculum decisions (Morgeson and Nahrgang 2008). It is possible that highly ranked MBA programs might be valued by recruiters for their screening and selection role. ‘The top business schools attract intelligent, hard-working, accomplished students, who have already displayed an interest in business or an aptitude for leadership – exactly the qualities that companies are looking for’ (Datar et al 2010: 82). In this respect Datar et al note the regularity with which business school informants reported a notable decline in student engagement with MBA curricula, over time, and over the length of the degree. Students are simply less engaged with the material because it is the graduation from a highly ranked MBA program that counts, rather than the skills learned in the program.

Some support for this is provided by Rubin and Dierdorff’s research on the relevance of MBA curricula to managerial competencies. While it might be assumed that higher ranking MBAs have more relevant curricula, they found that ‘MBA programs ranked in BusinessWeek’s top 30 were no more likely to require relevant coursework than multiple randomly sampled comparison groups’ (2009: 217). This underlines the so-called ‘pedigree effect’ thesis (Pfeffer and Fong 2002).

Role of business schools

The rigour and relevance debate places the role of the business school in sharp focus and raises the question of whether such a dichotomy exists in practice or whether rigour and relevance can both be achieved. AACSB International (2010) in its recent review of business schools and innovation takes a broad perspective and sees the ‘core activities’ of business schools and their contribution to innovation as encompassing:

- **Innovation and Learning:** business schools can develop management innovation by teaching and cultivating key skills associated with the creative application of solutions, entrepreneurship and ‘integrative thinking’ which encourages thinking across knowledge gaps and domains.

- **Innovation and Intellectual Capital Development:** management research, including the invention, implementation and diffusion of new ideas, as well as the testing, codifying and organising of management knowledge, can make a vital contribution to innovation. Business schools also have a key role as a hub for research

• managing strategy and innovation (analysing data and information, thinking creatively, developing objectives and strategies)
• decision-making processes (information processing, decision-making, problem-solving, judgement of relative quality)
• strategic and systems skills (complex problem solving, systems analysis, financial management and resource management)
• knowledge of general business functions
• learning, motivation and leadership
• generative thinking.

However, respondents rated MBAs as no better or worse than non-MBA employees with respect to the following competencies:

- knowledge of human behaviour and society
- knowledge of technology, design and production
- social orientation, including cooperation, concern for others and self-control
- conscientiousness, including dependability, attention to detail and integrity.

There was also no statistically significant difference between MBAs and non-MBAs on other relevant competencies: managing tasks, technologies and human capital; foundation skills; operations skills; interpersonal skills; and communications. Overall these data would seem to confirm that MBAs are better trained in analytical and technical skills than in people management, social skills and ethical values.

The research undertaken by Rubin and Dierdorff (2009) also sheds further light on the extent to which current US MBA curricula might be seen to be ‘relevant’. They studied the MBA curricula from 373 US business schools assessing the units in those programs against the six managerial behavioural competencies generated from their previous research. On the one hand, they found that MBA programs are broadly relevant in the sense that the vast majority of MBA programs require students to take at least one course on each of the six competencies. They concluded therefore that ‘when defining relevancy in terms of the requirements of managerial work, MBA programs accomplish much of what they set out to do, namely to deliver content relevant to general managers’ (2009: 218).

On the other hand, they found that the two specific competency categories that managers had nominated as the most important to managerial work (managing human capital and managing decision-making processes) tended to be the least covered in terms of required course coverage. In terms of relative emphasis, MBA curricula tended to be more

businessWeek's
on innovation being well placed to undertake practice-oriented and interdisciplinary research.

- **Innovation and Outreach**: business schools engage with their communities, including the businesses in their region and beyond, through a range of activities including business plan competitions, social entrepreneurship, community-based student consulting projects and business incubators.

This analysis builds on detailed empirical research by MIT and Cambridge University on what business expects from universities, with relevant implications for business schools in particular. Richard Lester’s model (2006), which guided the research, identified four sets of functions of universities in this context:

- **Educating people**: at undergraduate, postgraduate, mid-career, executive levels
- **Problem-solving for industry**: through contract and cooperative research, consulting, and incubation services
- **Adding to the stock of codified knowledge**: through publications, patents and prototypes
- **Providing public space**: coordinating networks, meetings and conferences, mentoring and exchange programs, alumni networks, industry liaison and curriculum development committees.

The significance of public space and the related ‘informal contacts’ between universities and industry for business innovation was highlighted by the results of a survey of 3500 companies in the US and UK by the Cambridge-MIT research team (see Figure 4). Companies clearly valued graduate recruitment and scholarly publications, but rated informal contacts more highly as a source of innovation capability and performance.

Inevitably, business schools, like the universities which house them, will perform differently in all these areas and must make choices about their strategic positioning within constraints of resources and capability. The Advanced Institute of Management Research report on the *Future of Business Schools in the UK* (AIM Research 2006) investigated these choices and proposed four different elements of the approach business schools can take, though none are mutually exclusive and most business schools will combine these elements into their own distinctive approach:

- The first approach is that of a **social sciences school** which has a contribution to knowledge as its primary focus, with incentives to publish in top ranked, peer reviewed academic journals
- The second approach is a **liberal arts school** which aims to ensure that managers and leaders are not just technically competent, but also have the ability to think critically about the world in which they act
- The third approach is a **professional school** which is more practice-based and tends to focus on graduate employability and the improvement of management, financial and organisational skills
- The fourth approach is a **knowledge economy school** which focuses on the development of management knowledge, and the commercialisation of scientific and technological discoveries from the wider academic community.

It seems likely that business schools might want to make a significant contribution in terms of all four approaches. The question may well be one of relative balance and emphasis. If the prevailing critiques of business schools and MBAs are right, then it suggests that schools might consider less emphasis on the social sciences school approach and more emphasis on one or more of the following approaches: the professional school approach in which more business-relevant skills would be taught; the liberal arts school approach in which students would develop more critical capacity, more ethical acuity, and a broader view of business to the benefit of organisations and communities; and/or the knowledge economy school approach in which research and innovations of more apparent and immediate application to business were encouraged.

While Australian business schools may well seek to excel equally across all four approaches identified by the AIM Research paper, this does raise the question of the feasibility and desirability of having all business schools in a relatively modest-sized higher education market such as Australia’s seeking to excel on similar dimensions and seeking to offer a similar set of competencies, programs and services. It might be more desirable to have greater diversity in terms of offer and relative emphasis across Australian business schools than is currently the case.
Environment for business schools

The aspirations and opportunities for business schools are shaped and constrained by the institutional regulatory policy and competitive environments in which they operate. In Australia, relevant environmental conditions include:

- The relationship of business schools to their broader universities, including the common imperative of generating surpluses for redistribution across the university; the need to align with broader university strategic goals, the requirements to adhere to centrally mandated policies, processes and practices.

- The role of the new Tertiary Education Quality and Standards Agency (TEQSA) and the implications of its quality assessment of universities against the Higher Education Standards Framework including standards for providers, qualifications, teaching and learning, research and information.

- The role and impact of the Excellence in Research for Australia (ERA) exercise under which research excellence in each university is evaluated across defined fields of research. Research outputs in high ranking academic journals are central to the assessment process and in its current form ERA will increasingly drive academic behaviour in the direction of publication in academic journals.

- The role of accreditation agencies such as AACSB, EQUIS and AMBA as well as a host of professional bodies in requiring certain offerings and practices that shape, encourage and sometimes constrain business school aspirations and strategies. There is an emerging tension between standards compliance and the scope for innovation in business schools.

- The trend to closer articulation between the vocational education and training (VET) sector and universities. The Bradley Review of Australian Higher Education (2008) advocated a more integrated tertiary education sector and the Australian Qualifications Framework (AQF) review has promoted articulation between the sectors.

- The relationship between business schools and other providers and stakeholders in the management education area. Bodies such as the Australian Institute of Management (AIM) and the Australian Institute of Company Directors (AICD) as well as professional bodies of practising managers have a long history in management education. Business schools and the sector as a whole needs to consider the extent to which competition and/or partnership with these bodies is optimal.

- The changing information and communications technology (ICT) environment in which business schools will compete in delivering their programs. ICT advances have already globalised much management education, and the National Broadband Network will facilitate greater use of online learning and teaching materials, techniques and approaches.

- Increasing constraints on government funding alongside increasing demands to enrol more students, which has driven universities to aggressively pursue international student fee income. Over time, Australian business schools have become dependent on this source of income and a recent decline in international student enrolment has introduced serious financial challenges for many universities and their business schools.

Different business schools will undoubtedly have different views of their optimal environment. It is envisaged that the relative impact of various constraints and ideas concerning an enhanced environment for business schools, will be highlighted by the experiences of the ‘innovative practice trials’ being undertaken as part of this project.

Engagement with business

Much of the claim that business schools and their programs are increasingly irrelevant to business is associated with the view that there is insufficient engagement between business schools and businesses. While there is a lack of data and systematic analysis of the levels of such engagement in Australia, the reports associated with the emerging innovation agenda and some of the evidence referred to in the next section, suggest that a deeper and more purposeful level of industry-business school engagement is overdue in the Australian context.

Engagement might include some of the following activities often undertaken by business schools:

- Facilitating the recruitment of graduates by business
- Business projects for students
- Guest lectures from managers
- Business representation on school boards of advice
- Provision of scholarships
- Joint research projects/ ARC Linkage
- Consultation over curricula, course design, materials
- Work integrated learning
- Internships as part of curricula
- Commercialisation of research
- Case studies.

To what extent are these fairly conventional strategies capable of being extended to deepen engagement? More radical strategies might be needed to deepen business engagement with teaching, business education and research. Business schools and businesses might need to consider mutually beneficial incentives to encourage business managers
to spend time working in business schools and to create opportunities for business school faculty to spend time working in businesses. From the university perspective it is notable that sabbaticals are still based on the assumption that faculty will spend time working in another university; is there scope to promote the idea of industry or business sabbaticals?

It is likely that executive education has a critical role to play in the deepening of business school – business engagement. Given that successful executive education is predicated on a very clear understanding of market need (especially in the case of open programs) and an often very high level of financial and time commitment on the part of business (especially in the case of tailored and custom programs), this is a field where engagement is deep and lasting partnerships are valued. Despite there being some prominent Australian business schools with extensive executive education programs, anecdotal evidence would suggest that the Australian market is relatively small and unsophisticated in comparison with the US and Europe. And in some economies, such as Brazil, executive education is indeed the principal form of management education undertaken by business schools (Bradshaw 2012).

One of the few readily available studies of the business school executive education market (Spearly and Baker 2005 for UNICON and Penn State Executive programs) surveyed 23 Fortune 500 companies. The report presents a sobering picture of corporate attitudes to business school executive education. While universities were reportedly valued for:

- breadth and depth of content expertise;
- research providing insight into best practices and alternative strategies;
- program design;
- teaching experience;
- learning methodologies;
- flexible, cost effective solutions.

They were also often viewed as:

- impractical; having an academic perspective without corporate experience;
- using off-the-shelf designs and charging for development of materials that already exist;
- being over-priced, often due to reputation;
- having a short-term perspective resulting in a lack of effort and commitment to building deep relationships (Spearly and Baker 2005).

Respondents to that study also saw the market for executive education to be shifting from ‘education’ towards ‘consultation to support implementation… based on deep partner relationships’. There are clearly major opportunities for business schools to extend their engagement with businesses through executive education. It is also likely to be one of the most promising areas in which research insights can be translated into business process and management innovations, and where genuine business and management can be implemented and evaluated in partnership with business clients. Many business schools, however, probably face significant challenges in terms of faculty development and institutional investment in order to realise these opportunities.

Management education in Australia

Systematic evaluation of the overall quality and effectiveness of management education has been rare since the Karpin report. Given the complexity and diversity in the range of management education offerings and the difficulties in gathering reliable and accurate expenditure data from organisations, in particular, this is unsurprising.

As noted above, the implementation of the Karpin recommendations has been patchy and only one key recommendation, a national training program for frontline managers, was implemented nationally with the Frontline Management Initiative (FMI) led by the Australian National Training Authority (ANTA). The initiative, delivered through the VET system, was estimated to have led to the training of approximately 250,000 frontline managers through public programs and a similar number through private programs (IBSA 2011: 19). Other recommendations designed to promote a more coordinated approach to management education – the development of a management competencies framework, the introduction of people and quality programs modelled on the UK’s Investors in People program, the national accreditation of management schools and the establishment of the Australian Council for Management Development – were either not implemented or only ‘lightly implemented’ (IBSA 2011).

In 2003, an Australian Institute of Management survey estimated that only 10 per cent of management education in Australian was conducted via ‘formal programs’. On the basis of that survey one researcher commented in 2004 that ‘it would seem that Australian universities currently only have a minor role to play in meeting these [management education] needs’ (Holian 2004: 398). Overall the weaknesses and criticisms that have been levelled at management education in the US and Europe in recent years seem relevant to the Australian situation. Key persistent criticisms of management education, and university courses more generally, pertain to relevance and quality.

The 2010 ACCI National Workplace Skills Survey provides some data on employer satisfaction with universities (if not business schools or management education specifically). Respondent employers were, overall, slightly more satisfied with universities than with private or public vocational education providers. However the areas where employers were most dissatisfied
with universities are telling: employers rated universities relatively poorly in terms of the relevance of courses (3.8 out of possible 7) and the quality of graduates (3.5 out of possible 7). On the other hand universities were highly rated for their flexibility.

There have also been widespread calls for Australian management education to make a stronger contribution to developing the innovation capacity of Australian organisations, management and workforces. Building innovation capacity implies the need for management education to better develop the following skills:

- ‘communication, teamwork, problem solving, entrepreneurship and leadership’ skills as well as ‘strong technical skills’ (BCA/SKE 2006)
- ‘knowledge management skills including a capacity to stimulate knowledge management practices including knowledge sharing, strong incentives to retain talent, alliances for knowledge acquisition and the development of knowledge management policies’ (BCA/SKE 2006).

The BCA’s 2011 report Lifting the Quality of Teaching and Learning in Higher Education argues that universities need to produce graduates who have:

- ‘discipline-specific ‘in-depth knowledge and up-to-date technical skills’
- ‘international capabilities’ including adaptability to international environments and diverse teams
- ‘the ability to think independently, critically analyse issues and problems, and to adapt thinking and analytical skills to different contexts and new problems’
- ‘generic skills including teamwork, problem-solving, communication, and the ability to utilise technology and to engage in self-directed learning’.

Business schools have attempted to respond to these challenges through the introduction and integration of learning goals, curricula and assessment that purport to recognise and develop a range of generic skills and attributes, although the implementation of these initiatives has been ‘haphazard’ (Jackson 2009: 214). The BCAs report calls for an improvement in Australia’s higher education quality and advances four priorities designed to achieve this:

1. Rewarding effective teaching and learning outcomes through various institutional incentives and performance funding initiatives;
2. Improving the relevance of courses through increased engagement with business over curriculum, supporting the work of B/HERT and its promotion of best practice, enabling institutions to specialise with centres of excellence, and increasing the internationalisation of course content;
3. Developing strategies to ensure sustainable growth of Australia’s international education industry by reforming visa requirements, improving English language proficiency, and improving interaction between domestic and international students;
4. Developing a ‘demand-driven’ system which is more responsive to business and community stakeholders through initiatives including ‘supporting Skills Australia to lead annual consultations with industry, higher education and government regarding national higher education priorities’.

The Australian management education system needs to do more than just develop the management skills of managers so that they can help encourage and stimulate innovation. It also needs to actively promote genuine collaboration between business and business schools. There is clearly an enormous potential for business schools to do much more here: the 2003 ABS Innovation Survey found that only 27 per cent of innovating firms had any form of alliance or collaboration in place, and that only 6 per cent of innovating businesses reported any collaborative links with universities, governments or research institutions.

More recent data suggest little improvement: according to 2008-09 data only 2.4 per cent of innovation-active businesses in Australia collaborated with universities, although this was an increase from 1.6 per cent in 2006-07. Overall, however, relatively low levels of collaboration and networking between industry and research institutions remains a ‘consistent weakness in the Australian innovation system compared with other OECD countries’ (DIISR 2011: 82). While specific data on collaborations between business schools and business is unavailable, it is apparent that there is considerable scope for improvement.

**Firm and sectoral management development**

Relatively little recent data on management development activities undertaken by Australian firms is available. The limited Australian data that is available suggest that managers are more likely to be involved in work-related training and/or education of some kind than other occupational groups. For example in 2005, 48 per cent of managers were involved in work-related education or training compared to 41 per cent of all employees (HILDA data in Watson 2008). However, the education and training rate was higher for ‘professionals’ (57 per cent). Estimates from the 2009 ABS Survey of Education and Training indicate a higher level of participation of managers in ‘non-formal work-related courses’ – 74 per cent of managers – however, this was no greater than the average for all employed persons in that survey.

Data from the 2009 ABS Survey of Education and Work indicate that although managers have higher than average levels of
attainment of formal post-school qualifications (67 per cent of managers held such a qualification), the level is lower than that for professionals (91 per cent) and technicians and tradespeople (69 per cent), and only slightly higher than that for community and personal service workers (66 per cent). Despite the relative paucity of data, this suggests that up to approximately three-quarters of Australian managers participate in work-related training or development of some kind and that about two-thirds hold a post-school qualification.

Compared with other forms of formal vocational and professional education, formal training in management and commerce remains a very popular option; however the relative share of all vocational and professional training in this field, as a percentage of all formal training appears to be static, or declining. In 2005, 28.5 per cent of all formally recognised certificates, diplomas and bachelor’s degrees were in management and commerce; however by 2009 this had fallen to 26.0 per cent. The fall was greatest amongst the share of all postgraduate qualifications (graduate certificates, diplomas and postgraduate degrees): 33.1 per cent of all postgraduate qualifications were in management and commerce in 2005, whereas 28.8 per cent were in 2009 (ABS 2010).

However, these data cannot be taken as clear evidence of any absolute decline in the popularity of management education and training. Indeed recent ABS surveys suggest that the share of persons (as distinct from the share of qualifications) in management and commerce has remained relatively steady (at around a quarter) since 2001 (ABS 2009).

As the AIM data noted above suggest, universities’ share of the management education market is not especially large, at least from the perspective of the proportion of all management education undertaken through formal university programs. It also remains the case that Australian managers tend to have relatively low rates of tertiary qualification attainment in comparative terms. The Management Matters study (Green et al 2009) revealed that only 44 per cent of Australian manufacturing managers held a degree, ranking Australia in 13th place amongst the 15 countries included in the comparative study.

Innovations in management education

In response to the many challenges facing management education in Australia and overseas business schools have clearly been innovating, reviewing curricula, trialling new teaching methods and approaches, and working and engaging differently with students, alumni delivery partners and businesses. Without systematically assessing all the innovations currently underway in Australian business schools it apparent that innovations in content and curricula, learning and teaching methods and engagement have included the following:

Innovations in program content and curricula:
• integrative thinking
• critical thinking
• generic skills development
• design thinking
• ethics and ethical decision-making
• sustainability
• international and global business issues.

Innovations in teaching and learning methods and approaches:
• experiential learning
• Innovation Labs and Entrepreneurship Labs
• action learning projects
• critical reflection/ critical reflexive practice
• use of personal developmental portfolios
• e-learning, blended learning
• virtual teamwork and collaboration assignments.

Innovative partnerships, forms of engagement and collaboration:
• intra-university collaborations between business schools and other departments and schools
• business projects for Not-For-Profits, NGOs, community groups
• student consulting projects
• international collaborations and joint venture partnerships between business schools.

In recent years many of the world’s leading business schools have been embarking on significant reforms and innovations designed to address many of the criticisms and weaknesses identified over the past decade. Some prominent examples include:
• The Advanced Leadership Initiative at Harvard Business School involving collaboration between different schools designed to bring together diverse faculty and students to develop multi-disciplinary solutions to complex social, political and economic problems.
• The development of cross-disciplinary areas (CDAs) of research and teaching in decision-making and negotiation and strategy at Columbia Business School, and integrated teaching curricula at Ivey, Stanford Graduate School of Business and Yale School of Management.
• The use of Field Immersion Experiences for Leadership Development in the Harvard MBA. The program involves students working in teams of six in developing markets with multinationals or local companies.
• The introduction of thinking and communication courses in MBA courses including Stanford's Critical Analytical Thinking course, Yale's Problem Framing course and Washington University's Critical Thinking for Leaders course.

• The required Multidisciplinary Action Projects (MAP) course in the University of Michigan's Ross School of Business MBA which involves students working intensively over a seven-week period with a range of collaborators on international and US business projects.

• The introduction of required ethics and corporate social responsibility courses such as New York University's 'Professional Responsibility: Markets, Ethics and Law' course and Wharton's 'Ethics and Responsibility' course.

• The adoption by INSEAD of an intensive, one-year MBA based on the cultivation of a global mind-set allowing movement across campuses in France and Singapore with the opportunity to complete some study at Wharton.

• Using the principles of integrative and design thinking as an organising conceptual framework for the MBA at Toronto's Rotman School of Management, Weatherhead School of Management and Imperial College Business School (in conjunction with Design London).

• The introduction of 'innovation labs' for students to develop new ventures, undertake problem-solving with companies and engage in creative exercises, at Stanford's d.school, Rotman's DesignWorks, MIT's Design Lab, and Aalto University's Design Factory.

• The engagement of students in consulting projects with external companies, exemplified by University of Connecticut Business School's edgelab and Fox School of Business' Enterprise Management Consulting (EMC) program.

These, of course, are only some of the examples of innovations underway in many overseas business schools. AACSB, EFMD and the Financial Times Business Education section regularly feature stories concerning business school and MBA program innovations. They also imply, in the words of international management thinker Peter Lorange, that 'the business school of the future is different'. For Lorange, this will mean 'a paradigm shift from an integrated hierarchy to a networked model… characterized by speed, agility and rapid adaptability, rather than by bureaucracy, silos and axiomatic force' (Lorange 2012). However, the real point is that the discussion on the future of management education is now open to new ideas and approaches.

Conclusion and Key Questions

Management capability and performance is a key factor in the productivity and competitiveness of organisations. However, many Australian managers lag their international counterparts in significant areas of management capability, and it is arguable that shortcomings in current management education offerings are contributing to this capability gap. For example, some have suggested that management education needs to be more business relevant, better integrated around contemporary business problems and challenges and more directly attuned to contemporary innovation and productivity imperatives.

For business schools in Australia the challenges are many and are associated with their mission and purpose, their engagement with business, their relationship with other faculties and schools inside the university and other business schools outside the university, their value proposition to students and business clients, the capacity and the incentives perceived by their faculty, their institutional environment and of course, their program design, curricula and pedagogical approach.

Key questions for the future of management education

Some of key questions for the future of management education in Australia might be considered in terms of the skills and attributes that business schools seek to develop, the knowledge that business schools might generate, and the relationships that business schools might cultivate.

Skills and attributes that business schools should teach and develop

How should management education be responsive to employer and industry demands for employability and generic skills? To what extent should management education focus on:

• the specific skill sets sought by employers
• the competencies defined by industry sectors and professions
• technical skills
• employability skills
• generic skills
• higher-order cognitive skills?

How can the ability to transfer skills, knowledge and attributes from the business school context into the workplace and enterprise context be measured and assured in light of Mintzberg's (2005) claim that management skills cannot actually be taught in a formal educational setting?

To what extent, and how, should management education seek to develop specific management skills and dimensions of learning such as:

• integrative thinking
• experiential learning
• design thinking
• reflexivity
• ethics
• entrepreneurship
• innovation.

**Knowledge that business school research should generate**

How can stronger, deeper, more effective and more durable research collaboration between industry (individual firms, clusters, industries, regions) and business schools be cultivated and used to inform research programs and priorities?

How can business schools best ensure the effective diffusion of the results of their research to firms and industries, including improvement of leadership, culture and management practices in workplaces?

How can Australian enterprises be encouraged to focus on, invest in and develop a more structured approach to the development of their management capabilities?

What role can business schools have in assisting enterprises to generate a better understanding of their management performance, and what incentives are needed for Australian enterprises to invest in improved management and leadership practices?

How can business schools enhance their role in the testing, evaluation, assessment, codifying and interpretation of contemporary organisational practices, including management practices, to improve the utility and timeliness of research knowledge and findings for enterprises?

How can business schools reconcile the implications of new quality initiatives (which reward publications in high ranked academic journals) with demands to focus more strongly on practice-oriented, business-relevant research?

**Relationships that business schools should develop**

What forms of engagement between industry and business schools work best in ensuring that management education meets the demand not only for specialised domain knowledge but also ‘boundary-crossing’ skills?

To what extent and how should business schools encourage Work Integrated Learning (WIL) programs, ‘living labs’ and industry involvement in curricula design and delivery?

What role should executive education play in the development of deeper business engagement and sustained business innovation?

In what way can business schools best engage with institutional and government-supported opportunities for research knowledge diffusion and research collaboration?

How should business schools develop links with government agencies, and with the communities of which they are a part, including NGOs and ‘third sector’ organisations?

What does the ‘business school of the future’ look like, and how would its approach, impact and relationships be different?

**References**


Appendix 1:

Productivity and competitiveness

The OECD has identified Australia as having experienced ‘particularly strong deceleration in labour productivity growth’ from the late 1990s (OECD 2008: 7). Figure 5 confirms that Australia’s labour productivity performance in the 1990s was exceptional and that Australia has returned to below average labour productivity growth in the 2000s. Figure 6 indicates that Australia’s multifactor productivity, which grew by 1.3% in the
1990s, fell by 0.8% in the 2000s, placing Australia at the bottom end of the rankings of advanced countries. This structural deterioration in Australia’s economy has been masked by the gains from an unprecedented commodities boom.

In this context, Figures 7 and 8 show that a strong productivity performance is crucial to Australia’s international competitiveness, particularly if we are to continue to be a high wage economy, as unit labour costs are growing much faster than in other advanced countries. There are also further challenges for all advanced countries as global economic power shifts to the faster growing emerging economies (Hawksworth and Tiwari 2011). As well as addressing infrastructure needs, workforce skills and the regulatory environment, building management and innovation capability will be a major factor in the improvement of Australia’s productivity performance.

The Productivity Commission has noted that, ‘in the past Australia has benefited from terms of trade increases and increasing labour force participation. However, these factors cannot be relied upon in the future for economic prosperity because of changing international circumstances and the ageing of the population’ (Productivity Commission 2008: 5).

In addition, the high dollar has increased pressure on trade-exposed industries and services, like manufacturing, tourism and education.
Attachment 2

B/HERT Report on Consultation Workshops

Background and Purpose
The Australian Business Deans Council (ABDC) is conducting The Future of Management Education initiative which is supported by the Department of Industry, Innovation, Science, Research and Tertiary Education. There are three major components to this initiative:

1. The Future of Management Education Scoping Paper which provides a brief introduction to some of the key issues related to the future of business and management education in Australia\(^{12}\). The paper is designed to stimulate debate and provoke the identification of further issues.

2. Two **consultation workshops** which form a broad consultation exercise with business and industry and from which criteria for the innovative practice trials will be developed; and

3. **Innovative Practice Trials** which enable the development and delivery of new curriculum and learning concepts designed to enhance productivity through strategic capability-building in firms and organisations.

This report outlines the major themes that emerged from the two consultation workshops for consideration in development of the Innovative Practice Trials grants program.

The Workshops
Two workshops on The Future of Management Education were held on Monday, March 19 2012 (Melbourne) and Tuesday March 20 2012 (Sydney). The workshop participants comprised representatives from business, ranging from large multinational companies to Australian owned SMEs, industry associations, experts and practitioners, government and tertiary educators from both the university and VET sectors. The workshop agenda is at Appendix 1.

Professor Srikant Datar opened the sessions by describing the model he developed at Harvard Business School to address the leadership needs of the 21st century\(^ {13}\). The decline in enrolment in management education both in the US and in Australia reinforces the timeliness for the ABDC to be conducting this review.

Professor Datar’s address generated discussion about the issues identified in the Scoping Paper.

Issues Raised
- Business school offerings are too homogenous; there is a need for greater differentiation among the schools; should schools specialise in leadership, technical skills, academic and research?
- Business is more reluctant now than in the past to sponsor MBAs because there is a view that the programs are not meeting expectations. This gap needs to be filled to overcome cynicism about the value of the MBA so that business is confident about the product;
- Management education needs to be conducted at all levels instead of focussing on CEOs and senior managers; SMEs are particularly overlooked by the business schools and many would benefit from management education; SMEs should become the modal group instead of multinational CEOs;
- Abolish the undergraduate business degree and replace it with a graduate program only offered on a part time basis for people currently working in business; business/management academics should be required to spend a minimum of two weeks per year working in business;
- Because there are no stand-alone schools of business, most MBAs are now offered through university faculties and colleges; these very big faculties can be complex for students;
- Innovation is happening in business but the challenge is to get it into universities;
- Interdisciplinary and continuous learning are essential approaches to management education; industry/professional participation in the curriculum is important and combining academic education with coaching and mentoring add value;
- The leadership industry is very fragmented in Australia; there is a need for longevity of focus of many firms; there are opportunities for business schools to conduct research identifying which interventions make a difference;
- Turning knowledge into value i.e. management consulting is a growth area and needs to be globally transferable;
- Australia needs to improve its Management Effectiveness and Innovation. People who need the help most see themselves as too busy for development activities. Free, quality, micro-sized (under 20 min.) on-line / downloadable relevant training modules which make up a more complete “course” have proven effective in drawing viewers. These on-line, on-demand modules provide opportunities for easily scalable, readily available, and easily updatable courses. They would be created to allow target audiences to use “time gaps” e.g. commuting / Facebook time to gain relevant knowledge in specific topics on a variety of communication platforms (PCs, tablets, smartphones,
etc.). Creation costs should be low much of the required materials should directly derive from parts of existing courses or are be able to be licensed;

• Engaging with industry and its diversity is the key to innovation.

The following major themes emerged from the workshop discussions.

**Theme One: Graduate Skills**

**Leadership:**
Business recognises the importance of innovation and creativity to its success. Innovation and problem-solving skills are strategic elements of leadership. Reference was made to Stanford Design School in terms of their approach to innovative thinking and problem-solving and to the Harvard case method which teaches students to understand people who are very different from themselves. Understanding self and awareness of others is critical because in business, as in life, imposing one’s will onto people does not lead to achieving lasting outcomes. Students need experiential opportunities to acquire effective strategies that work with others. Management as a profession in Australia does not value people enough. What is needed are well rounded executives. The increasingly greater focus on people and how executives manage and lead change within organisations is indicative of changes within corporate structures around the world. In contrast to leaders of organisations who previously held high authority and no content, we now see a shift to leaders with low authority and high content.

Many universities approach leadership development in one dimension but business is desperate to link with integrative thinking. Group managers up to CEOs need to understand how to manage from a corporate perspective. This means business schools need to teach from all the major business transition points. This is particularly important in that multinational organisations now operate in a dynamic global environment with consequential domestic impacts which leaders must be able to address effectively. Business schools have an opportunity to take a very active role in this approach.

**Managerial skills:**
Business would benefit by lifting the quality of skills in graduates. Managerial skills need to be able to contribute to productivity. These include the ‘softer’ communication and interpersonal skills to create a broader graduate who transitions into a ‘lifelong reflective manager’. Graduates as future managers need to demonstrate confidence for negotiation that is critical in the service industry. Strategic thinking needs strengthening as does learning how to grow talent. Australia, however, teaches technical skills very well. Most successful MBAs undertake their degrees after they have developed their technical skills.

While there are business schools in Europe, there are countries where degrees other than MBAs are favoured for business education (e.g. in Germany, Switzerland). Most people come to management from an engineering background where project and leadership skills are offered. Graduates start in junior positions to become promoted with experience. This approach to work is like a living laboratory. The Europeans have an inherent respect for knowledge and lifelong learning. They appreciate the need to be analytical to understand the assumptions underlying theories and critical thinking including the ability to be able to make an argument in a written document. Both interdisciplinary learning and continuous learning are considered essential and are highly valued.

Business graduates operate in a global market. A review of Australia’s major CEOs and senior executives would demonstrate a high proportion not educated in this country. A disproportionate high number of Australian executives attend the Harvard Advanced Management Program. Is it because they are not finding the product they want in Australia? Our business schools need to produce world class graduates if they are to be competitive. Benchmarking against the world best is important, particularly if China and India start developing Harvard quality schools.

**Theme Two: Management Education**

**Content:**
There is a business perception of a decreasing relevance and diminished value of the MBA graduate. MBA degrees and executive education programs are no longer considered ‘tickets to the game’; there is concern that the MBA has become commoditised and executive education is a revenue generator.

This perception may be a product of a mismatch of expectations between business and business schools. In a time poor world, it is a luxury to send someone to do an MBA and therefore a sponsored MBA graduate must be able to add value. Management education needs to address ‘what is happening in the real world’. This includes a clear focus on ethics and values, avoiding silos and using an interdisciplinary approach which is linked to science, engineering design, etc. Students are educated consumers and expect to be treated as such.

Is the current model for the business school relevant as we move forward? Because business isn’t one thing, it is important for the schools to be clear about who the customers are and their issues. Business schools also need to be clear about the value of their product. Business, for example, often wants a bespoke solution which may be why leadership programs are frequently developed internally or they go out to consultants. This ‘connectiveness’ is critical and would benefit
from input from a range of individuals. Should Australian business schools be more differentiated and focus on future leaders or technical skills or academic leadership?

Just as a manager is the sum of the people they manage, a business school is the sum value of its staff and students. In this context, business educators are not the font of knowledge and should consider a move towards facilitation of learning. Learning and development pathways are more desirable than a rigid program.

For business, speed is now essential in decision-making as well as in keeping pace with constant change. Management education needs to address how managers best deal with constant change and the ability to respond dynamically to the needs of stakeholders on the one hand, while at the same time embedding the importance of reflection and integrative thinking on the other. These critical issues are important for inclusion into the curriculum and also present as excellent research opportunities. For example, firms’ longevity of focus and their long term pathways are both excellent teaching topics and potential research programs for business schools in terms of what interventions work best in what types of organisations.

As Australia is part of the Asia-Pacific region, cultural thinking must also be part of the business curriculum. Dislocated pieces of information need to be coherent and challenging. The value of ‘disruptive thinking’ is that it forces the question ‘does that apply to all cultures?’ This is increasingly important in a global business environment.

Delivery:
Business schools comprise a new generation of students that are fundamentally different than the academic staff teaching them. They grew up with the internet (Generation ‘C’ i.e. Click) and operate very differently. Business (some) also operates differently as a result of the internet and the use of multidisciplinary teams. Are educational delivery models responsive to this generation? Are the schools able to offer educational programs in a variety of formats from differing platforms? Have delivery models been reviewed and if so, what works best? Can management education deliver to those who don’t want to interact with a traditional university?

One approach worthy of consideration is the development of a free, quality, micro-sized (under 20 minutes) on-line / downloadable relevant training modules which make up a more complete “course” and have proven effective in drawing viewers. These on-line, on-demand modules provide opportunities for easily scalable, readily available, and easily updatable courses. They would be created to allow target audiences to use “time gaps” e.g. commuting / Facebook time to gain relevant knowledge in specific topics on a variety of communication platforms (PC’s, Tablets, Smartphones, etc.).

Theme Three: Business/Business School Engagement

Engagement between business and the business schools is largely based on supply and demand of students. A better metric of engagement is the level of participation by business in the national debate. Why is business/industry engagement with the business schools not better? Why are the relationships stronger in the US and UK? Is it the case that business/industry doesn’t know that there are forums for engagement?

Every business school has an advisory board with business/industry representation. Are board members well informed about management education and do they ask the right questions? Are universities listening to the advisory board members? Engagement is particularly poor with the SME sector about the value of business education. Do the business schools fully appreciate the extent of the investment in management education for the SME sector? Should business education be part of apprenticeship training and bridge the gap between higher education and the vocational sector? Does business really understand what the different business programs deliver? When is a short course the right choice compared to a graduate diploma?

There is general consensus that greater connectivity and more business engagement with the schools would be beneficial for many reasons including increasing opportunities for experiential learning. For example, academics struggle to drive projects involving internships because of the poor links with industry. Programs such as these offer skill development and skill utilisation. Deep and effective relationships between the business schools and industry would contribute to balancing rigour and relevance.

The Innovative Practice Trials

The Innovative Practice Trials provide opportunities to develop and test innovative approaches to management education that would otherwise not have been pursued in the business schools. This ‘additionality’ component is essential to the success of these trials designed to support creative, effective and internationally competitive programs that, upon demonstrated success, can be adapted in the curriculum and related management education activities. It is intended that submissions for the Practice Trials cover all forms of management education products and services delivered through business schools i.e. undergraduate/postgraduate offerings, executive education, bespoke courses etc.

Based on the results of the consultations, submissions for the Innovative Practice trials should be designed to address one or more of the following dimensions of management education innovation:
1. **Graduate Skills**
   - Leadership
   - Management

2. **Management Education**
   - Content
   - Delivery

3. **Business/Business School Engagement**

   It is envisaged that the selected bids would represent a range of innovative practice including teaching and learning, research collaboration and dissemination and networking innovations. Only new projects will be eligible for consideration.

   Five Innovative Practice Trials will be selected on merit by the independent ABDC Steering Committee that will be formed. Each successful project will be awarded $40000 along with matching funds committed by the institution’s business school. Guidelines and submissions forms will be developed based on the selection criteria approved by the ABDC.

   In assessing the submissions, the Steering Committee/Judging Panel will be mindful of the extent to which the projects can develop management innovation by i) teaching and cultivating key skills associated with the creative application of solutions, entrepreneurship and 'integrative thinking' which encourages thinking across knowledge gaps and domains; ii) focus on management research through implementation and diffusion of new ideas and/or practice-oriented interdisciplinary research; iii) engage with their communities, including the businesses in their region and beyond, through a range of entrepreneurship activities.

   Submissions will be evaluated on the following criteria:

   1. **Innovative** – is the project novel? Does it to create value through new products or services, new business models or processes? Has the status quo been challenged? Is it contemporary and dealing with leading edge issues of the day e.g. sustainability, globalisation, cultural diversity etc.?

   2. **Interdisciplinary** – Does the project involve colleagues from different disciplines/organisations?

   3. **Engagement** – Have business/industry been involved in the design, implementation or evaluation of the project? Do they support the outcomes?

   4. **Outcomes** – Has the project achieved its outcomes? Can it be replicated in other settings? Is it adaptable to cover SMEs, start-ups? Not-for-profits?

   In addition, each submission must address how the project will be evaluated including appropriate outputs and outcomes and timelines for achievement; and a communication plan that will ensure the project will be widely disseminated. The Steering Committee/Judging Panel reserves the right to request further information if necessary.
IPT - Collaboratory to Develop, Prototype and Evaluate a Management Development Curriculum for the World

**Professors Irene Tempone & Eddie Blass**

**Faculty of Business and Enterprise,**

**Swinburne University of Technology**

**Introduction**

The Innovative Practice Trial (IPT) submission, *Collaboratory to Develop, Prototype and Evaluate a Management Development Curriculum for the World*, is located in Attachment 6. In addition to this report, a video has been prepared based on the outcomes of the collaboratory. This video is available on [http://www.youtube.com/watch?v=MMao3YxXrNo](http://www.youtube.com/watch?v=MMao3YxXrNo). The script of the video has been included in Attachment 7. Attachment 8 provides the workshop comments that were raised and formed the basis of the scenarios developed in this final report. The paper in Attachment 9 was presented to the Global Responsible Leadership Initiative (GRLI) General Assembly in Paris in June 2013.

**Objectives**

The objectives of this innovative practice trial were:

- To establish a 'collaboratory' of academics from across the university, industry representatives, and government and peak body leaders to explore the notion of a management education for the world.
- To develop a curriculum for the development of responsible leaders for a sustainable future drawing on the outcomes of the collaboratory.
- To test the curriculum ideas with current and future students and future employers.
- To prototype elements of the curriculum for testing in the current 'classroom'.
- To disseminate an 'alternative model' to the current management education offering to encourage debate and be a trigger for change.
- To contribute to the further dissemination and development of the '50+20 Agenda' to develop management education for the world in partnership with the GRLI and PRME.

A list of senior executives from a broad range of industry sectors was drawn up and invited along with a cross-section of faculty. The industry respondents were very reliable with everyone turning up for the first workshop who said that they would. This included private and public sectors, transport, utilities, consulting and professional services. The mix in the room was approximately 50% industry and 50% academic, and of the academics, 50% were from the faculty of Business and Enterprise and 50% were representative of other faculties in the university (e.g. design, education, ICT). We were overwhelmed with the generosity of the industry attendees with their time, enthusiasm and engagement. Their vision on where the university could go in the future far exceeded the boundaries the university sectors seems to be putting on itself.

**Implementation and emerging challenges**

While the discussion was insightful and positive, gaining commitment to action from organisations and faculty proved difficult. There was a nice focus on language and culture in some of the discussion but this pushed the problem away from the immediate parties to schools and other parties. Part of the issue may be that the 'problem' is seen as too big for any one party to resolve alone, but gaining commitment to movement in a direction in itself was troublesome. To this end, the project team decided to conclude the trial by making a video message to Business Schools about the direction they should be following into the future.

The following scenarios were developed through the collaborator. They should be read in conjunction with the video.

**Imagine the year is 2030...**

**Scenario 1: The Corporate Business School**

Following the global financial crisis, the old business schools model no longer met industry needs. Employers no longer viewed holding an MBA as a premium as they were finding MBA graduates to be too theoretical and generalist, ‘know it all’, and lacking in the practical skills of change management and collaborative working. Graduates were generally finding well-paying jobs very competitively sought; no longer did a ‘business degree’ virtually guarantee a job and the value of the degree was diminished. Securing employment became more of a priority for the younger generation than having a degree – studying became an ‘add-on’ you could do afterwards. Student debt was a real concern especially if further study did not result in a salary payoff.

---

14 Professor Blass is now located at the Learnings Innovation Hub, University of New England.

15 Global Responsible Leadership Initiative formed by the European Foundation of Management Development (EFMD) and the United Nations Global Compact (UNGC) as a collaborative organisation where business schools and industry discuss issues around responsible leadership (see www.grli.org)

16 Principles for Responsible Management Education (PRME) is an accord or set of principles that a number of institutions have signed up to and it represents a set of core standards with regards to values underpinning management education.
Business Schools are no longer the cash cow of the university; they were shrinking their offerings by 2020 and by 2025 many were unviable and shutting courses. Those that survived did so by embedding themselves within industry partners to offer business education within the workforce, drawing on the organisation's training staff and managers as part of the 'delivery team' while the traditional business academic had reduced relevance.

As such, business and management education is now offered within corporate organisations, industry bodies, peak bodies/professional associations and government agencies rather than remaining exclusively within the university per se. Many of the traditional business academic workforce retired early or took redundancy; those who can survive in this new world of 'relevance' are now employed by the new deliverers earning good salaries and are regarded as 'thought leaders' in their fields, publishing open source articles on the web to disseminate their ideas widely and seeking almost instant impact. This is a highly exciting, responsive and innovative environment for these ex-business school staff to be working in.

The career path to becoming a 'business academic' is now one of years of work experience and part-time study culminating in the development of a knowledge, skill and expertise base that is seen as important enough to sustain in the development of the next generation coming up through the organisation. There is fluidity to the 'academic workforce', and the PhD is not an essential hurdle to entry, but rather a way of celebrating a significant contribution to a field of practice.

For industry, the benefit of developing talent within the workforce is realised socially, economically and with regards to knowledge management and development within the organisation. As staff 'graduate' they contribute directly to the development of the organisation and ultimately give back to the organisation their wisdom and ideas through the development of others if they reach 'academic' status.

Imagine the year is 2030 . . .

Scenario 2: The Collaborative Partner Providing a Service

As the job market becomes ever tighter after the GFC, business graduates are finding it harder and harder to find work. They are graduates of business, but business of what? By 2015, business schools started to offer some double degrees with other faculties, e.g. design and marketing; engineering and management, ICT and finance; and by 2020 business faculties offered few standalone degrees at all and mainly offer adjuncts to other discipline areas. What was formerly the old business school has now become the collaborative hub of interdisciplinary activity, bringing together ideas from across the university to create unique offerings by combining other disciplines knowledge and practice bases with the mechanics and tools of business.

Postgraduate offerings have expanded as single degree holders from other faculties realise the need to integrate their professional knowledge base with business, leadership and management understanding and practice. The MBA has now been reinvented as the bridging qualification for non-business graduates who need that 'conversion' knowledge in order to succeed in a commercial world. Sectorial MBAs have also developed for the public sector and not-for-profit sectors recognising the different needs in these domains.

The role of the academic has shifted to an interdisciplinary domain and those former business school staff who continued to work in limited silos found themselves redundant by 2020. Those remaining have well developed facilitation skills and work with industry partners to manage interdisciplinary student groups working on consulting type projects. This is a fast moving, highly charged workplace generating lots of industry solutions and innovations rather than refereed journal outcomes, and research is practically orientated rather than theoretical.

The career path to becoming an academic is a combination of a subject knowledge base and business knowledge base, combined with outstanding facilitation skills. Communication skills and the ability to extol complex ideas to audiences with no prior knowledge are key. The PhD is seen as adding credibility to published outcomes, but it is not a barrier to entry to the academic workforce. Group facilitation skills to hold and manage a collaborative space become the entry hurdle.

For industry the 'product' of the graduate immediately adds value to their business by being able to apply business principles to their organisational context and specialism. Some organisations even go so far as to set projects annually for students in order to test the talent in advance of a round of recruitment events. This new way of operating allows them to do this so students are constantly being evaluated as to the value they can add to an organisation.

Imagine the year is 2030 . . .

Scenario 3: The Public Academic Champions the MOOC

The explosion of MOOCs by 2015 saw most of the top 25 global business schools in the world rankings offer 'free' business and management education, and combined with TED talks, the expansion of executive coaching, and the
The Future of Management Education

consultancies offering online offerings (e.g. The Deloitte Academy on Qantas), the offering of the university business school started to look dull and lacklustre. Students started asking what value they were getting from attending their course.

Many lecturers started using the materials available on the web in their mainstream teaching, and the ‘public academic intellectual’ appeared. By 2020, traditional business enrolment numbers were dropping significantly and the model of provision needed to change rapidly if ‘second tier’ schools were to remain viable.

An online offering has developed collaboratively between universities which promote the public academic intellectual MOOC with the opportunity for enrolment, assessment and certification through a new centralised national accreditation body which started awarding degrees in 2025. Online tutorials/coaching can be booked with ‘academics/pracademics’ at a cost related to the online reputation level of the person involved. Pricing is not standardised but market based.

Assessments are personally designed to draw on the student’s work/life situation to ensure immediate relevance and application of learning. MOOC presenters and designers are given ‘celebrity status’ and they receive adequate remuneration for their teaching but the real money is to be made in executive coaching and tutorials. For the non-celebrity academic the hours are long and the pay is relatively poor.

The business schools that survive have models that collaborate well, are at the cutting edge of technology and head-hunt academic celebrities to promote their MOOCs. Publication of ideas is almost instantaneous and peer review occurs after publication through public review rather than prior to publication.

The career path to becoming a business academic within this model is a peculiar hybrid of the old and new. Academics are still expected to have a PhD and this is still the biggest hurdle to entry. There is also the added requirement of technology enablement such that the academic can manage their own MOOC. The better they manage the MOOC, the more successful they are likely to be in their career.

For industry, the situation is bliss. They can access a range of free top-end learning materials and use them as and how they wish within their organisation. Staying up to date with the latest ideas is relatively easy and highly accessible, and the opportunity to gain academic credit is an option that can be taken up within a prolonged time period. This separation of learning and assessment means that organisational needs can be met as and when they arise, with the individual need for accreditation being satisfied in a timeline that better suits the individual concerned.

Imagine the year is 2030……..

Scenario 4: Business as Usual

The university continues to hone the business school model and it continues to offers traditional face to face learning supported with online materials and a learning management system.

School reputation is key, alumni loyalty is vital for the tier 2 schools and the competition is fierce. Courses are business discipline based and students’ progress from UG to honours or PG and potentially PhD. Full time PhD’s are the norm of the PhD offering and many PhD students are overseas students. The potential future domestic academic workforce is therefore decreasing.

The portfolio of courses offered by schools has had to become very targeted as the market is saturated with alternative corporate, private and online offerings in addition to this more traditional mode of study.

Students in 2030 are less interested in sitting in a classroom to learn so the physical business school provision has shrunk in response to shrinking demand. The academic workforce has stagnated as an academic career is not particularly attractive to young graduates and successful PhD students tend to return to industry to develop their careers. Publications still take approximately 2 years to come out after submission and are largely theoretical in nature.

The career path to becoming a business academic is relatively unchanged from that in 2010, with the PhD being the main hurdle to entry, plus the individual’s ability to teach and hold the attention of a group of people. Promotion then depends on publications in peer-reviewed journals and grant funding applications.

For industry this model is providing a stream of graduates for them to employ but they are questioning the value a graduate brings them over a non-graduate. Having a business degree does not accelerate an individual into the talent pool but the knowledge base still does have a value in preparing individuals for promotion.

Outcomes as measured against objectives

Outcomes 1 and 6 have largely been achieved. A paper was delivered at the GRLI General Assembly in Paris in June where feedback was positive and the 50+20 steering group started to reflect on some of the issues that stemmed from the retreat; other evaluation premature – need to develop the innovations first. In addition, a number of universities are joining together to form a Community of Responsible Action (CoRA) under the auspices of the GRLI to share the responsibility of embedding the 50+20 agenda within Australian Business Schools. Members of this CoRA will include Griffith, QUT, Swinburne
and UNE. In addition, the video being made will be posted on both the 50+20 website and be available for the ABDC to use as they wish.

Outcomes 2-5 were moderated as no single curriculum was developed but rather guidance for curriculum design in terms of the message in the video script. In hindsight, to consider a single curriculum outcome was probably naïve and unrealistic as the narrowing of focus into a single curriculum defies the point of the project. Hence the messages offered in the video script are therefore the contribution to the achievement of outcomes 2-5.

Lessons learned
The key learning for the project team has been around the difficulty in changing the Business School without complete management buy-in. Hence the role of the Dean is paramount, and if the Dean of the School does not believe in the change, it does not matter how hard the faculty staff push in this direction, the change will be blocked as it requires a fundamental shift in commitment in the thinking of the faculty. This in turn requires the support of the DVCA, the VC and so forth. This is not just about Business Schools – it is about management education in the future, academic identity, the idea of the University, and a fundamental challenge to the traditional Business School paradigms that drive the way they operate. This proved too much for many.

The IPT contribution to management education
There follows the film script and related video http://www.youtube.com/watch?v=MMao3YxXrNo. The messages in this script are our contribution to the future of management education. In addition, there are four scenarios that were developed for the workshop that can be used in other workshops to help consider these issues. These are also included earlier in this chapter.
The Future of Management Education

Intro Typed Screen
This video script stems from 3 days' work by a group of academics across faculties and industry representatives who gathered over a 3 month period of time to explore the future of management education if we were to develop Globally Responsible Leaders in the future. These leaders would not only be the 'best in the world' but would also be the 'best for the world.' The project was funded by the ABDC and we would like to thank and acknowledge the sponsors and participants (list the companies who took part who wanted acknowledgement – EB)

(This starts with the 'diagnosis of the situation' – would like students to recite these lines)

- We need to develop an education system that builds accountable, outcome-driven and relevant leaders.
- Business schools need to focus on aligning the curriculum with the students' and business' needs to be relevant.
- But organisations do not go to universities and business schools for new skills development – they look elsewhere.
- So business schools need to articulate 'why they exist' given the 'new' models of business education emerging.
- A number of groups around the world, such as the 50+20 project, the Globally Responsible Leadership Initiative and the B-Team, are questioning the model of business education and whether it is sufficient for Business Schools to develop leaders who are the 'best in the world,' rather than the 'best for the World.'

Show Logos on Video
The role of business in society is critical so our challenge, going forwards, as Business Educators is to represent this from multiple perspectives.

We need to build on the current system of reporting to include social impact and environmental impact to enable individuals (including shareholders) to make informed decisions.

Show Multiple Perspectives Graphic/ Drawing
Business Schools need to get the results they want in terms of accountability, outcomes, relevance and responsibility. They need to report economic cost, social cost and environmental cost in everything that they teach.

Content needs to be less conceptual and more situational and environmental specific, to facilitate innovation while remaining grounded; and be immediately valuable in informing strategy and behaviour.

In business schools we concentrate too much on the critical rather than opportunities. It's a switch off. We need to reverse the message.

If the business education process required the final question to be 'where are the opportunities in this?' we may model making a difference possible, making knowledge and skill available to the world rather than questioning and critiquing its value.

In the knowledge economy there are no secrets – the educator's value is not in the content, but in enabling and exploring opportunities in the knowledge.

Physical location for learning spaces and business education is irrelevant.

The MOOC paradigm opens up the opportunities and challenges for developing globally responsible leadership.

Components of enabling and exploring process are: collaboratories; mentoring; assist with networking; distributed leadership behaviours.

Copy Collaboratory Diagram in here/ Benchmarking

There is much recognition of the problem but little action.

Show Headlines/Articles that criticise business education in its current form
We need to start facilitating the change.

(now the desired future starts to emerge – what we will need to do – would be good if academics recite this section)

- We need to look at what we report on and develop criteria for accountability.
- We need to better use the multi-industry opportunity that already exists in our classrooms.
- We need to facilitate the conversation around globally responsible leadership in everything that we already do.
- We need to help our students find relevance and bring about change by enabling them to let go of the idea of certainty.
- We need to ask appreciative questions as well as critical.
- We need to include alternative business models in the curriculum to the dominant capitalist discourse.
- We need to look for opportunities and innovation in our research outcomes.
- We need to shift towards a literature base that interfaces business and society.
- We need to facilitate conversations in social networks to mobilise our alumni.
• We need to inform the future shareholder about economic, social and environmental costs and impact so they can make informed decisions about how they want their investment portfolio to behave.

• We need to work collaboratively instead of competitively to raise the Australian business community of the future.

**Graphic insert here**
*(and what will see if we have done well is - would be good if business partners recite these)*

- Globally responsible leaders will be humble communicators who make decisions based on values as well as rational logic.

- Globally responsible leaders will be reflexive, innovative and visionary, who are able to cope and work with failure as much as with success.

- Globally responsible leaders will be embedded in networks as they seek collaborative advantage over competitive advantage.
Introduction

Swinburne University was a sponsoring co-author of the 50+20 agenda which was a collaboration of business schools and interested parties that came together to challenge the role of management education from the starting point that the current economic model of unrestricted growth and consumption is obsolete. The 50+20 Agenda describes a vision for the transformation of management education, in which the common tenet of being the best in the world is revised in favour of creating businesses that are designed and led to achieve the best for the world. The agenda suggests three new roles of management education. First, to refocus education to ensure that we educate and develop globally responsible leaders; second, to transform research into an applied field, with the clear purpose of enabling business organizations to serve the common good; and third, to add a new role for management educators to engage in the transformation of business and the economy by joining the ongoing public debate. As such, the 50+20 vision is represented by the philosophy of a collaboratory – an open space for action learning and research.

Swinburne received funding from the Australian Business Deans Council to run a ‘practice innovation trial’ in the form of the creation of a collaboratory, bringing together a range of academics across disciplines, representative parties from industry, peak bodies and government agencies, with the purpose of exploring, in particular, objective one above: to refocus education to ensure we educate and develop globally responsible leaders. The short film of the launch of the 50+20 Agenda at Rio was used to open the retreat and individuals were invited to share their reaction to the film.

The 50+20 project outlines their philosophy of the collaboratory involving a circular space that is open to concerned stakeholders for any given issue. It represents an open-source metaspace: a facilitated platform based on open space and consciousness building technologies. Once understood, a collaboratory can be established anywhere, virtual or real, within companies, communities – or within a management school. Its primary strengths lie in enabling issue-centred learning, conducting research for a sustainable world, and providing open access between academia and practice. The collaboratory offers a powerful alternative for public debate and problem solving, inclusive of views from business and management faculty, citizens, politicians, entrepreneurs, people from various cultures and religions, the young and the old. Everybody must have a voice, hence the need for a transdisciplinary approach.

Drawing on Open Space Technology, the process requires little formal preparation. Harrison Owen suggests that a detailed agenda, plan, reading materials etc. in advance can detract from the process, and it is better simply to have a compelling theme and committed group with a leader to facilitate the process. ‘Open Space Technology is effective when real learning, innovation, and departure from the norm are required. When you aren't quite sure where you are, and less than clear about where you are headed, and require the best thinking and support from all those who wish to be involved, Open Space Technology will provide the means.’

A collaboratory is conducted without formal separation between knowledge production and knowledge transfer, while focusing on visceral real-life issues and providing solutions that are driven by issues, not theory. Participants in a collaboratory employ problem-solving tools and processes that are iterative and emergent. Proposed solutions are directly tested, contested and modified while supporting both knowledge production and diffusion, which occur in parallel.

The stated objectives of the innovative practice trial were:

1. To establish a ‘collaboratory’ of academics from across the university, industry representatives, and government and peak body leaders to explore the notion of a management education for the world.
2. To develop a curriculum for the development of responsible leaders for a sustainable future drawing on the outcomes of the collaboratory.
3. To test the curriculum ideas with current and future students and future employers.
4. To prototype elements of the curriculum for testing in the current ‘classroom’.
5. To disseminate an ‘alternative model’ to the current management education offering to encourage debate and be a trigger for change.
6. To contribute to the further dissemination and development of the ‘50+20 Agenda’ to develop management education for the world in partnership with the GRLI and PRME.

---

20 The European Foundation of Management Development (EFMD) and the United Nations Global Compact (UNGC) as a collaborative organisation where business schools and industry discuss issues around responsible leadership. See www.grli.org
21 Principles for Responsible Management Education (PRME) is an accord or set of principles that a number of institutions have signed up to and it represents a set of core standards with regards to values underpinning management education.
Design and Collaboratory Methodology

The design of the workshop was informed by two main bodies of theory. Adam Kahane’s work on transformative scenario planning\(^{22}\) which recounts a series of change initiatives that started out looking at problems that appeared on first sight too big to solve. Kahane has brought together groups opposing ends of the spectrum to resolve issues that appeared unresolvable by creating scenarios for the future in which every stakeholder had a stake and appreciated how their stake impact both positively and negatively on each other. Through this process, stakeholders started to take responsibility for not causing harm to each other and mutually beneficial futures were created. This process of sharing responsibility for different stakeholders was one we sought to emulate in the collaboratory as industry and academia recognised the planet as a stakeholder that also needed a voice.

The second body of theory we drew on for methodology, which focussed more on the process of taking the individuals into a transformative space was Otto Scharmer’s Theory U\(^{23}\). This work outlines the social technology of presencing which is a necessary state for individuals to reach in order to achieve transformative change. This is achieved through diving down a U, requiring the individual to open their mind first, then open their heart, before finally opening their will. At the point of open will the individual can be present and a group engaging in presencing can bring about powerful, transformative change together.

The third element contributing to the design of the process was the information for moderators of collaboratories issues by the 50+20 project itself. This stated that the basic set up of a collaboratory is always circular, with an inner circle embedded within an outer circle. The inner circle was seated on ‘benches’ which we formed by putting two chairs together, and the outer circle stood and walked around. Each bench had a single person sitting on it. If someone from the outer circle wished to join the inner circle in order to contribute to the conversation, they moved and sat down next to someone on a bench. The person already sitting on the bench then stood and moved back to the outer circle. In this manner, in order to join a conversation, a contributor had to displace someone already in the conversation.

A talking-stone approach was used to slow down and deepen the conversation. This meant a stone was placed in the centre of the circle and in order to speak, the individual had to get up and pick up the stone, then reseat themselves on their bench before they started to talk. They then replaced the stone in the centre when they finished talking. The next person who wanted to talk then had to move to pick up the stone and reseat themselves before they started to talk. While this slows the conversation down, one of our participants feedback to us that they couldn’t believe how quickly the time passed.

We held three collaborative cycles on the first day of the retreat. We gathered at lunch and then went into the workshop space. As a means of parking pre-conceived ideas and freeing the mind in order to be able to transform understanding, our first activity was to brainstorm in small groups what they thought the current leadership problems were and what the current leadership solutions tended to be. We captured this on flipchart and tacked it to the walls. We didn’t discuss it. The point of the exercise was for people to park what they had come in to the experience thinking about as their agenda. We had captured it and written it down so they no longer needed to think about it. They had permission to let it go to allow space for new thoughts. We then moved into the collaboratory circle process. Each circle ran for just under 1 hour with a short break in between each. The three topics of discussion were:

1. Who will the leader of the future be?
2. What will globally responsible leadership look like?
3. Can globally responsible leadership be learned?

The essence of the conversation was captured on flipchart paper and is discussed below. The process had moved the participants from their start point, through open mind towards open heart. To open the heart more fully, we sent the participants off on a walk in the park to find something to bring back that was their ‘teacher’ so the artefact they returned with had to represent something that they were taught or felt needed to be taught in order to be globally responsible leader. We finished the evening by sharing our artefacts and positioning them on the table to represent our sculpture.

The next morning we started by hearing reflections on where people were at given the day before. We then moved onto a quick brainstorming task to start to generate ideas to move forwards. On the premise that every good idea about the future sounded ridiculous when it was first mooted, we asked people to put down any and all of the ridiculous ideas that were coming in to their head around the agenda.

In order to start find actors to take action, we moved into a task that identified who the stakeholders and actors were in globally responsible leadership. Once this long list was compiled, small groups mapped some of the stakeholders on a grid in terms of current position and preferred future position. The grid axes were impact and influence on globally responsible leadership on the X axis, and strength of interest in globally responsible leadership on the Y axis.

---

The groups then worked on ideas that would help move the stakeholders from their starting point in the direction of the preferred end point. These ideas were then put through a rapid democratic prototyping process before being adopted as a feasible intervention to pursue or not. A total of eight interventions made it through the prototyping process. Finally the group reconvened after lunch to explore what the role of the business school was in developing globally responsible leaders.

The Conversations

The discussion around current leadership problems focussed on the homogeneity of the issues. The group reflected on how the current heroic model of leadership where someone comes in to ‘save’ the organisation, working to a short term agenda which is not really responsive to change. Business schools were felt to be too academic and approaches to leadership development were not personalised and tended towards a one size fits all offering. Current solutions were felt to blur the boundaries rather than address the problems. There was a lot of rhetoric around integration but little translated into practice.

Moving from this discussion to the first collaboratory circle which asked ‘who will the future leader be?’ refocussed people into thinking about an ideal rather than a point of reality. The conversation started around a skills set that can best be described as a humble communicator, noting that decision making was based on value judgements rather than a rational logic alone. This led the group to a point of reflexivity and the need for the future leader to be reflexive in their approach, understanding their own strengths and the strengths of others. The future leader would be embedded in networks rather than an isolated individual which would enable them to have different attributes and purposes in different networks and situations. In turn this would lead to an innovative mindset, a visionary outlook, and an ability to cope with and work with failure as a learning process over time.

The second collaboratory circle focussed on ‘what will globally responsible leadership look like’ and initially focussed on the word global with discussion focussing on international sensitivity, and the need to be thinking and working both locally and globally, never one or the other. This led to people to think about some of the limiters to current practice and a discussion on what shared success might look like when it is globally shared, and what would be required in terms of transparency in order for such success to be achieved. A particularly nice strand was the link between doing well and doing good and whether you had to do well in order to do good, or whether doing good would lead to you doing well. This discussion reflected longer term thinking rather than the short term perspective discussed in the current problem focus.

The third collaboratory circle asked ‘can globally responsible leadership be learned?’ The group started emphatically positive with a big YES. In discussion the reality of this proposition though they started to moderate the enthusiasm. Firstly people had to be ready to learn, which was summarised in the lovely phrase proffered by one participant ‘responsible’. The importance of knowing and making decisions from a values base was core and hence it was felt that globally responsible leadership was a shared phenomenon rather than something vested in one individual. The notion of ‘it takes a village to raise a child’ was a good metaphor. Becoming globally responsible involved real world learning, and an anthropological type approach which would require one to find the language that resonates. Humility reappeared in this discussion and the need and ability to learn from listening to each other.

The next morning, the reflections from the group felt positive when they were said, but looking back at them now, they could be summarised into four groups, three of which are focussing on barriers: those reflecting on the process including the speed of the conversation; those noting a disconnect between industry and education in this field, almost noting the too hard to do anything objection; those who felt that wherever we went had to be collaborative because this was too much for any one person/group to take on (note another barrier being raised here); and finally those who questioned who we were to be discussing this issue given it is vested in future generations (in a manner, another barrier or objection).

From this, we asked for small group discussion to come up with ridiculous ideas, on the basis that every good idea for the future sounds ridiculous when it is first said. The ideas generated are captured as follows:

- Put the design in the hands of the next generation and have young mentors
- Customised self-directed curriculum
- No credentials or qualifications
- Swap positions for a day/week/month within organisations to experience the top/bottom
- Universities too late to make a difference; not tertiary education but Schools plus
- Education with no start or end
- We pay people to learn rather than charging them
- Online job information to indicate employment opportunities to steer educational offering
- Responsible citizen predictive system
- Free first degree

---

24 See www.holacracy.com for a rapid prototyping, democratic process.
• Problem based curriculum development – interdisciplinary
• Take business education out of the university – different metrics and governance
• Build and education city – possibly online
• Change the rewards structures and rules

The brainstorming session to capture the actors and stakeholders in the globally responsible leadership agenda noted 54 different players and these are noted in Appendix 1. Groups then mapped 3 of these in terms of their impact and influence on one axis, and their interest in globally responsible leadership on the other axis. A copy of this mapping is scanned in Appendix 2.

The Rapid Prototyping

The integrative decision-making process utilised to facilitate the prototyping process is a rapid democratic process outlined at holocracy.com. There are 6 rounds to the prototyping. Firstly the proposers speak and everyone listens to the proposition. The second round involves the audience asking question for clarification so anyone can speak and the proposer answers. It is allowable for the proposer to say 'that was not specified in the proposal' if they are asked something they have not yet considered. Round 3 is a reaction round where everyone speaks and the proposer listens. People give their reaction only on the basis of love it, hate it, no reaction. Round 4 sees the proposer going away and amending their proposal in light of rounds 2 and 3 above. They then re-present their revised proposal back to the group, hopefully addressing the issues raised for clarification and mood of the response of the group. Round 5 is the objections round where everyone speaks and presents rational arguments for why this cannot proceed. The group also takes responsibility for finding solutions to the arguments raised. Round 6 therefore concludes the proceedings with the proposal being amended one final time, or added to (or remaining unchanged) incorporating the solutions the group devises to the objections members of the group raise. This process led to eight proposals working through all six rounds of the process.


2. University leadership to link with Australian enterprise to create Junior Boards of students that pre-examine board papers and feedback to ‘the board’ from their perspective. Issue of confidentiality means more likely to be senior management level than board. Feedback process needs to be fleshed out. Accountabilities opportunity. Not in same physical space. Refocus to executive teams with FRL initiatives. Monthly agenda over 6 month process. Assess through journal, organisation feedback and peer group. Confidentiality issue needs resolving. Stakeholder council is presented with summary of themes and options and provides rational decision process. Overall liked and feasibility of implementing will be explored through UG and PG programs.

3. Learning experience for youth groups by involving them in real life challenges and problems as part of curriculum and dealing with them. Social enterprise based learning at high school. Could become part of an activist movement. Objective is to involve them in leadership and real life challenges. Could combine with idea 1 above. Needs sponsorship. Overall liked. Yes could go ahead but need to find a sponsor.

4. Formalise strategic conversations between university and industry by developing capabilities together across disciplines and working as partners. Formalise the social capital building and reward to achieve shared understanding for inclusion in the curriculum and research agenda. More sustained view than individual projects. Needs people’s time. Some scepticism but proceed to prototype by finding 3 potential partners in hope that 1 works out.

5. Scholarship system for primary schools funded by employers supported by universities to gain primary school children access to GRL issues. Could be community action for employers and CSR opportunity. Scholarships assist the teachers to expand their knowledge base help with curriculum design. No commercial benefit to university. Co-created curriculum. Context and mode sensitive. Language needs attention. Overall liked. Could proceed to trial with one disadvantaged school and one employer.

6. Trip advisor equivalent for Globally Responsible Leadership. Put up evidence and comment and star rating and then public comment develops organic encouragement of social responsibility. Embodied in a website. Administration required. Post own evidence for evaluation and response. Young people use it for career assessment etc. Create a home and companies will populate it. Issues around what counts as evidence. Could be potential conflicts of interest. What is the business model? Provides a market place for GRL opinion to be traded. Overall mixed reaction. Forward idea to GRLI.

7. Employers and organisations to measure educational impact as a quadruple bottom line. Demonstrates commitment to learning and change. Issue around measurement. Overall not sure to take to prototype.
8. Educational online city to locate underutilised physical space to support online and physical community development. Difficult to measure effectiveness. Provides a form of engagement to create a virtual eco-system within a country. Example of using restaurant space for a learning meeting the night the restaurant is closed. Lots of energy for this from council, Hub, University and utilities. Moving forwards to explore prototype.

Discussion
From a process viewpoint, it was particularly interesting that the groups chose to map stakeholders that did not include themselves. It had not occurred to us as facilitators that this would be the case and it may explain why the prototyping process focussed largely on ideas that were outside of the traditional remit of the participants in the room. Analysing the opening thoughts for day two now it is clear that the objections and barriers were already starting to rise as the potential for needing to commit to action and inevitably some change as a result was playing on people's minds overnight. Because these were reflections were delivered in such a positive manner, we did not pick up on these underlying fears at the time. Had we been more directive in our facilitation of the stakeholder mapping to include only those stakeholders they could directly influence, we might have had greater leverage in the interventions to prototype.

From a content viewpoint, the discussions on day 1 generated through the collaborator process give an insight into the future of management education with regard to globally responsible leadership development that might not otherwise be uncovered. These conversations were deep, thoughtful and passionate, and while some of the words might appear to be similar to those we hear today, such as the need to listen, the listening that was talked about here was one of listening with resonance and empathy, determining a real understanding of what people were saying, taking on board their views and reflecting in a reflexive manner about what they need to change in themselves in order to meet a changed agenda for leadership. This project set out to explore how business schools need to change in order to meet a changed agenda for leadership in the future. Frustratingly, it felt that it failed to achieve this end in the initial stages – or did it? The fact that the partners opted for interventions that were largely outside their remit is perhaps indicative of a number of points that can help us shape the managed education agenda for the future. Firstly, it is clear that the agenda is too big for any individual or single organisation to be able to address alone. This clearly came through in the conversations, and it is not due to a lack of commitment to change, but the need for a collective movement for change. The retreat may start that movement in Australia as those who attended have shifted their positions and thinking from where they were when they walked in the room. This may also be promoted further by the GRLI in Australia and the 50+20 project more widely. Citing this as an outcome may seem like a cop-out but it is equally a call to action. Recognition that nobody can do this alone gives power to the collective voice and legitimises organisations having conversations with each other that might otherwise seem anti-competitive and outside the boundaries of ‘acceptable’ within any one organisation or business school.

Secondly, it is clear that this is not wholly a business school problem. Schools need to be involved, as do other players in education and youth work, as do communities, industry and other faculties within universities. This is not a unique business school issue – it is an education issue which business schools can take a lead in addressing.

Thirdly, the pedagogical experience that is likely to lead to the development of the future globally responsible leader might be something which is difficult to mass produce and hence goes against the current pressures for business school to increase numbers, class sizes and graduates. This type of initiative is more open ended, uncredentialed, and an international multidisciplinary learning experience which is difficult to put together solely within the business school, and is difficult to replicate for large numbers.

We asked the participants to reflect on what role they felt the business had in the future development of globally responsible leaders. The responses reflected the need for great change within the structure and function of business schools to enable them to engage on a different footing with industry, the community, schools and a wider political agenda. To meet such demands we may need to radically reshape the business school and its offerings in the future.

What is the future role of the Business School in developing Globally Responsible Leadership?
This project set out to explore how business schools need to change in order to meet a changed agenda for leadership in the future. Frustratingly, it felt that it failed to achieve this end in the initial stages – or did it? The fact that the partners opted for interventions that were largely outside their remit is perhaps indicative of a number of points that can help us shape the managed education agenda for the future. Firstly, it is clear that the agenda is too big for any individual or single organisation to be able to address alone. This clearly came through in the conversations, and it is not due to a lack of commitment to change, but the need for a collective movement for change. The retreat may start that movement in Australia as those who attended have shifted their positions and thinking from where they were when they walked in the room. This may also be promoted further by the GRLI in Australia and the 50+20 project more widely. Citing this as an outcome may seem like a cop-out but it is equally a call to action. Recognition that nobody can do this alone gives power to the collective voice and legitimises organisations having conversations with each other that might otherwise seem anti-competitive and outside the boundaries of ‘acceptable’ within any one organisation or business school.

Secondly, it is clear that this is not wholly a business school problem. Schools need to be involved, as do other players in education and youth work, as do communities, industry and other faculties within universities. This is not a unique business school issue – it is an education issue which business schools can take a lead in addressing.

Thirdly, the pedagogical experience that is likely to lead to the development of the future globally responsible leader might be something which is difficult to mass produce and hence goes against the current pressures for business school to increase numbers, class sizes and graduates. This type of initiative is more open ended, uncredentialed, and an international multidisciplinary learning experience which is difficult to put together solely within the business school, and is difficult to replicate for large numbers.

We asked the participants to reflect on what role they felt the business had in the future development of globally responsible leaders. The responses reflected the need for great change within the structure and function of business schools to enable them to engage on a different footing with industry, the community, schools and a wider political agenda. To meet such demands we may need to radically reshape the business school and its offerings in the future.
Appendix 1: Actors and stakeholders in globally responsible leadership
(Not noted in any particular order)

Trialling Two Paradigms of Industry Partnered Management Education

A/ Professor Christine Burton

UTS Business School

Introduction

UTS Business School has been in the process of revising its core postgraduate programs and exploring new programs. As part of this program redesign, UTS Business School looked at its core strengths aligned with the University’s mission and vision. UTS Business School’s unique position in the Sydney marketplace is a ‘can-do,’ industry connected, practice oriented institution. However it became increasingly apparent that many, if not all Business Schools, were emulating this positioning. For UTS Business School not to cede the ground to competitors it needed to understand better what its offering was to business and how it could make itself an indispensable education partner for companies. This in itself was a challenge. Not only was there competition from within the Business School sector, all Business Schools themselves were facing additional external competition from a number of directions. Many corporations disenchanted with what Business Schools were supplying had developed their own internal universities (Rademakers, 2005). Compounding this development, the exclusivity of universities as transmitters of knowledge came under pressure with the development of Massive Online Open Courses (MOOCs).

At an international level, the contribution of business education and the type of graduates produced was scrutinised following the Global Financial Crisis. Datar et al (2010), and a number of other academics and authors subsequently called for a review of business education (Boland & Collopy, 2004; Mintzberg, 2005; Moldoveanu & Martin, 2008; Jain & Stopford, 2011). The overall conclusion from these authors was that for Business Schools to be sustainable and relevant to corporations then more complex approaches to problem-solving and decision-making need to be embedded within the courses they offered. These offerings included developing soft skills of managing others and self-management, communication skills, influence, teamwork and collaboration as well as leadership. The integration of soft and hard skills meant that traditional ways of problem-solving could be critiqued and alternative and emerging perspectives brought to the forefront.

The Future of Management Education and the IPT program presented a channel through which UTS Business School could tackle the complexities of contemporary business education challenged on many fronts by the rise of corporate universities, MOOCs and the mistrust generated by the perceived role of business education in contributing to the Global Financial Crisis.

Objectives

The objectives of the IPT were developed on the premise that a can-do Business School such as UTS would have experiential learning as fundamental to innovative practices. However we did not want to embrace experiential learning in the usual way. The effectiveness of experiential education in simulating issues facing business students has been extensively explored. Experiential education approaches range from simply drawing on student work experience in order to sensitize students to detail in decision-making (Babbar, 1994), disaggregating the effectiveness of Kolb’s theory of learning styles through a variety of experiential learning activities (simulations, case studies, films and role plays) (Chavan 2011; Bergseiner, Avery & Neumann, 2010); enabling students to access ways of reflecting in relation to the ‘doing’ part of learning (Coulson & Harvey 2012); and issues on quality assessment in work oriented learning environments (Clements & Cord, 2013). The case study approach has been one of the most prominent approaches to teaching and learning pioneered and standardised by Harvard Business School. Yet some have seen the limitations to case studies and have promoted integrating students’ own work related issues to illustrate business concepts (O’Connor & Cordova, 2010). Even so many of these critiques have simply expanded the case approach to include job shadowing or other one-dimensional engagement with industry (McCarthy & McCarthy, 2006).

Building on dynamic or live cases where the outcome may be uncertain, Hawk and Weiss (2005), promoted consulting projects as methods of ensuring students understood the holistic approach to problem-solving. In searching internationally for best practice, we noted that Fox School of Business had been delivering a consultancy approach to business education through its capstone subject Enterprise Management Consulting (EMC) for 10 years using a unique methodology that seemed more authentic to any we had identified previously.

Their subject aimed to bring a holistic bearing to problem-solving in dynamic situations for clients that range from start-ups to large not-for-profits to branded global companies. This approach was one that held sufficient authenticity in innovative experiential business education which could reclaim UTS Business School’s pre-eminence in industry connectedness. It presupposed not so much a supply driven mentality to business education but rather a highly responsive demand driven approach to what businesses sought. We recruited Associate Professor Jim Hutchin from Fox School of Business (Temple University, Philadelphia) to assist in adapting EMC to an Australian environment.

The specific objectives of the project were:

1. Develop the prototype subject Integrated Business Consulting (IBC) incorporating academics and business...
advisers working together for a range of industry clients and working globally across business schools to develop best practice methodologies;

2. Develop the prototype U:Lab approach to innovation and entrepreneurship as a methodology which will inform a number of subjects in a new postgraduate degree;

3. Provide a proof of concept that innovative approaches are sustainable for business schools in the long-term;

4. Discover how global business schools can work cooperatively in spreading a unique methodology in live consultancies.

These objectives arose from a nascent collaboration that UTS Business School was beginning to pursue with Fox School of Business in investigating a disruptive model of business education which challenged the dominance of case study approaches to management education and extended the current concepts and practice of live case studies and consultancies with industry. While it is common practice for students to undertake live case studies these are usually led by academics and tend to replicate the Harvard case study method but in a live situation. In collaboration with Fox Business School, UTS uniquely introduced project managers drawn from industry (usually at the C-Suite level and often on retirement track) who guide, mentor and work alongside students to solve a complex industry problem sourced from industry. While the approach is anchored by an academic, project managers act as support resources for students and academics. In addition, we sourced industry advisers to give robust feedback to students at certain points in the subject. This model is a distinguishing feature of the Fox/UTS live consultancies but is intensive to administer (in sourcing appropriate industry problems and developing a stable of project managers and industry advisers) and its sustainability for UTS was uncertain.

The methodology for the pilot project was:

1. Consult with global corporations, start-ups and not-for-profits in identifying suitable projects for students and businesses to solve;

2. Identify suitable problems that may be solved across two or more Business Schools working collaboratively in different countries (for example, start-ups that wish to enter foreign markets; global companies that have global common issues);

3. Invite industry representatives to assess student solutions as they progress;

4. Provide a testing ground for corporations and companies to evaluate the attributes of students in problem-solving, and aptitudes for innovation and entrepreneurship.

Implementation and emerging challenges

Because this was a pilot project and needed a proof of concept, we invited targeted students to participate in the new subject Innovative Business Consulting. Eighteen students (3 teams of 6) were selected on the basis of their Grade Point Average and were drawn from across all postgraduate programs: MBA, EMBA and specialist Master of Business degrees. They were further filtered on the basis of ‘time to completion’ of the degree – that is, those chosen were in their final one or two semesters. This ensured that all students had knowledge in at least one or all areas of accounting, finance and marketing which we deemed critical if they were to engage in real problem solving. All students understood that this was a pilot subject.

We did not filter students on the basis of work experience and in hindsight this was somewhat naive. We knew that pre and post work experience students had different approaches to problem solving and those with post experience drew on their own experiences not only in assessing problems but in understanding the demands of the workload. Two students in particular lacked work experience although their grades were outstanding. The workload in this subject was significant and some students were ill-prepared for the commitment required.

The subject was team based and we used a tool called SPARK 25 which monitored the process of student groups. The use of SPARK shifted the responsibility of monitoring the process of teamwork onto the students themselves. Students self-assess their own contribution and the contribution of their fellow teammates. The assessment can be viewed by all team members and the academic. Academics can monitor and intervene where any indication of ‘free riding’ seems to occur but the expectation is that students police their own performance before a critical event occurs.

Three clients were chosen for this project. We purposefully chose a start-up/early stage company, a large not-for-profit company and a global brand. The reason for doing this was to ensure that students were exposed to different types of businesses with different types of problems and where they could learn from each other even as they are working intensively with their own company as a client. These three types of companies also approximate the variety of businesses that students will or have come across in their careers.

---

25 SPARK is a tool used to monitor the process of group work. Students are required to develop their own Charter of Conduct among the group and develop their own criteria against which they assess their own and other’s performance. Because we know that how students behave in groups can be a source of potential conflict and because this subject was disproportionately skewed to group output we deliberately introduced this tool. The success of this was variable but of sufficient value to embed SPARK in the subject in future. The use of SPARK in this subject was presented at an AACSB conference on technology and assessment in Phoenix in early 2013.
Selecting clients was a prolonged process and one where we needed to ensure we gained the client’s trust and that they were prepared to share sensitive information. Partial or incomplete information would be a barrier for solving a problem. We also needed to ensure that the problem the client had was ‘real’; that is, this was a problem that mattered to the client and not something that they were giving us a ‘charity’. Because this was a pilot project, we did not charge clients for the consultancy work undertaken, but this would be an expectation in future. Clients understood that this was a trial project and also understood the importance of the problem being a significant one for them.

The clients selected were:
- Conservation Volunteers Australia – a mature and large NGO
- EcoWhispers – an alternative energy start-up company
- Willis Re Australia – part of the Willis Reinsurance group.

Live cases require considerable thought in relation to legal issues that need to be dealt with as simply as possible while not exposing the Business School, clients or students to risk. Nonetheless issues such as non-disclosure, intellectual property, conflicts of interest were complex. We worked closely with our legal department to draw up contracts that will become a template for future clients. However this may become more complex if the global brands we are anticipating as clients are domiciled in a foreign country and are subject to different legal requirements or jurisdictions.

As we had recruited Jim Hutchin from Fox School of Business to adapt the Enterprise Management Consulting subject to Integrated Business Consulting at UTS, we anticipated recruiting academics from the Management Discipline Group to shadow Jim Hutchin with a view to succession. We targeted a number of academics who we believed had a commitment to experiential learning but who may have lacked industry exposure to become the anchor academics for the subject in the future. The intent was to build confidence among these targeted academics and to provide a research opportunity. We believed that there are two ‘built-in’ research components in this subject: the development of a case study from the work undertaken which could then be reported in the management literature; the development of a pedagogical paper on the impact of experiential learning using this methodology.

Recruiting academics proved particularly challenging. As research has become a priority for many academics driven by ERA, university policy and a belief that promotion is only achieved through a substantial research output, there was reluctance on the part of academics to be included in the pilot. It was particularly unfortunate that academics could not envisage the research potential embodied in the program.

The second challenge was in relation to the recruitment of project managers. Over the years, Fox School of Business had grown a pool of project managers drawn from industry who coach the students throughout the semester. These project managers are often on retirement track and high achievers in their careers. At UTS we were starting from scratch. However, we identified a number of potential industry partners associated with various programs within UTS Business School who could potentially become project managers. The attributes we were seeking were different from attributes that may be associated with teaching or tutoring. Live cases ‘sold’ as consultancy work are high risk. Clients have been told to expect a professional grade result. Because of the high risk in this approach, project managers were a critical part of the team as well as having an educative role. Their role was one of coaching, guiding and ensuring that the students have considered all possibilities. Attributes we were seeking included a willingness to share their knowledge, expertise and business experience; an ability to listen and to take advice from the client and other industry advisers who are brought into the project at two stages in the subject; a generosity of spirit and a genuineness to help students become the best they could be; a commitment to stay the course of the subject with little commensurate payment for the time invested.

We were seeking three project managers. We interviewed six people altogether and the three that were recruited displayed the attributes above as well as having reached a significant level in their careers. Two had been CFOs in multinational companies and one had significant experience in the not-for-profit sector as well as growing his own businesses. Jim Hutchin also had significant industry experience in the insurance industry and was the anchor academic and project manager across the teams to ensure consistency. Jim met with the project managers regularly prior to class to review what was happening, troubleshoot and to plan for the next session.

The third challenge was recruiting industry advisers. Industry advisers were asked to robustly critique and challenge two milestone student presentations. The first student presentation concentrated on background research: scope of the industry; challenges facing the industry as a whole; particular challenges facing this client; identification of the problem; options for solutions. The second student presentation deeply engaged with the problem and presented strategic solutions. Both presentations were delivered to the client after revisions based

---

26 For example, Fox Business School which has significant experience in experiential learning through their subject Enterprise Management Consulting normally charge clients a fee to participate. The fee ranges from $15K for global brands to $7.5K for start-ups or NFPs. The fee covers additional expenses of the subject.
on industry adviser feedback. The students were required to present a defensible proposition that was challenged by the advisers. Industry advisers like project managers needed to be generous and willing to engage with students on a constructive level. They of course needed to be knowledgeable and carry the weight of experience that is transferred to students in a way that is relevant and supportive. Nonetheless, in their professional capacity these industry advisers were at ease with frank, forthright and uncompromising debate and we expected that they would bring this to bear in critiquing the work of the students. Students were aware that this was a necessary rigorous process if they were to present back to the clients confidently.

The industry advisers were recruited from personal contacts in industry. Approximately fifteen were recruited – five for each team. We held the trial presentations at the UTS Business School and catered for the advisers on the two evenings of presentations.

Outcomes as measured against objectives

**OBJECTIVE**
Develop the prototype subject Integrated Business Consulting (IBC) incorporating academics and business advisers working together for a range of industry clients and working globally across business schools to develop best practice methodologies.

**Outcome**
The subject was developed and a range of clients secured. One client, Ecowhispers was a start-up alternative energy company supported by Enterprise Connect in Australia and exploring ways for breaking into a foreign market. Students at UTS worked on this problem alongside students from Fox School of Business. Both concluded similar ways in which Ecowhispers could expand their product. While the students from both Schools communicated from time to time we also had an opportunity of one of our students actually visiting Fox while in NY on business. However this did not eventuate because of severe storms which curtailed travel.

At an academic level the global connection was strengthened with two academics visiting Sydney at the commencement of the subject (TL Hill and Jim Hutchin) and one of these remained for the semester (Jim Hutchin).

The subject is now in its second phase of piloting with considerable success and unexpected beneficial outcomes built from the first stage (see below: Lessons Learned). In revising the flagship Executive MBA (EMBA) program we have embedded IBC as a co-capstone subject. We also anticipate trialling another version of the subject aimed specifically at entrepreneurs which will align with our Entrepreneurship Strategy developed in the Executive Education arena of the UTS Business School. This will be offered in the MBA program.

**OBJECTIVE**
Develop the prototype U:Lab approach to innovation and entrepreneurship as a methodology which will inform a number of subjects in a new postgraduate degree.

**Outcome**
We developed this to a much lesser extent. U:Lab underwent revisions in its operations throughout the period of the grant. The approach to design thinking and entrepreneurship will now be embedded in a new one year MBA based on entrepreneurship.

**OBJECTIVE**
Provide a proof of concept that innovative approaches are sustainable for business schools in the long-term.

**Outcomes**
Sustainability for this type of program within a Business School presented significant internal barriers. These were:

1. costs associated with running the program in paying a stipend to project managers (three) and costs associated with industry advisers’ evenings;
2. small numbers in the class compared to other subjects because this is a hothouse environment (up to 24 students only);
3. costs associated with recruiting clients (mostly in terms of time investment) although this has longer term benefits and is a critical investment if Business Schools are to be relevant to industry needs;
4. cultural shift within the Business School – there was some scepticism over the value of the IBC subject in teaching management education, centring on the ability of academics to engage with industry at a sufficiently deep level to grow projects.

The latter in particular has proved complex and has resulted in significant debate within the Business School. Cost has also been one issue but as importantly there was considerable disquiet about risk associated with potential reputation erosion should students not deliver professional grade results. There was also concern as to whether we could maintain a client base. The latter two issues (reputation and client base) have subsided to some extent as academics have seen the results of the projects and understand that the academic involved is both adept at industry engagement and client recruitment and is acutely aware of the risks associated with this type of program – failure to deliver quality to the client is not an option.
OBJECTIVE
Discover how global business schools can work cooperatively in spreading a unique methodology in live consultancies.

Outcome
This has been one of the most successful parts of the project alongside the development of Integrated Business Consulting as a flagship subject within our flagship EMBA program. Associate Professor Jim Hutchin has now joined UTS Business School as the Director of the EMBA program on a three-year contract. We continue to work closely with Fox School of Business in joint client projects and we will investigate exchange programs between our EMBA students in this subject. We are also investigating ways in which both Schools can work together to develop a global component of the EMBA that capitalises on the existing global strengths of each business school.

Lessons learned
The value of this program (IBC) is demonstrated in the accompanying film where clients, project managers and students give clear views on what they have experienced. We also canvassed student feedback on the subject through the Subject Feedback Survey.

Selected comments included:
• This subject has been one of the best experiences I have had throughout my education. It has proven to be challenging in the most positive way and I feel that it has delivered on its goals of developing my strategic mindset and analytical capabilities. It was an effective capstone subject that I think will drive the university to greater heights.
• As a new subject this was a wonderful opportunity to learn in a truly unique environment. Jim is an exceptionally gifted communicator and his experience in guiding this subject in the Fox Business School context was an immense asset in this first round. Course structure including weekly deliverables and team structure (please see improvements section) is appropriate and reflective of work pressures and co-operative working relationships necessary to succeed in business. The role project managers and mentors provided was vital and the role Jim played in ensuring they were focused and able to provide guidance through the course was terrific.
• The course as a whole provided the type of learning experience I have been looking for throughout the EMBA experience but unfortunately have rarely found. By bringing together all the learnings from 10 previous courses and providing an opportunity to apply them to an actual business problem in real time was a first class learning experience.
• The ability to secure Jim or a suitably qualified, enthusiastic and balanced faculty lead at the UTS end is critical to this subject having a chance of success in the future. This subject should be the standalone Capstone subject for all EMBA and MBA students to cap and consolidate the learning experience. It should run over 3 months for EMBA mid Jan to Mid April. Whilst this might be out of sync it is essential to produce high quality business leaders of the future.
• The ability to gain practical experience with real clients and solving a real problem is the highlight of this subject. The course was well led by Jim Hutchin, a superb lecturer with ample experience to guide students and teams through different problems or issues. The structure of the course seems well balanced, course work and practical. The advisor sessions were invaluable to the team for feedback, whilst the support of the PM and mentor was very crucial to the format working. The team would not have achieved the results they did without the support, and expert guidance of mentors and the PM. For a pilot run it was highly successful.
• The opportunity to work on a real client brief, with all the political chaos that ensues, with all the complications regarding getting data. Learning to deal with people that perhaps don’t want to be dealt with and give news to people that perhaps aren’t going to be that happy about what you’re saying. Learning to stand up to someone double your age with double your experience, including decades within the organisation that you first googled a handful of months ago, to tell them what’s wrong with their organisation, and what you think they need to do about it. Fantastic opportunity – really truly thank you.

While overwhelmingly positive the one standout criticism was the workload.
• The workload of this subject is substantial and I personally don’t think (as someone who is a part of the MBA program) that the 8 credit points accurately reflects this.

8 credit points does not justify the amount of work required in the subject.

It is unlikely that we can reduce the workload and maintain the quality of the subject. Students have argued that this subject is ‘worth’ two subjects given the intensity of their involvement. This presents a challenge to us because it is unlikely that we can increase the credit points associated with this subject in the flagship EMBA program where it belongs. The expectation of the workload then needs to be managed carefully and students need to understand that the benefits derived outweigh the short-term pain associated with time requirements.

Other lessons learned from this trial are:

1. Cultural shift within the Business School. The irony of teaching cultural change (the way we do things here) and actually experiencing how we bring this about in a business school is salutary. There are a number of barriers
and challenges that we met along the way. Some saw IBC as a threat to their status as embodying exemplary ways of teaching. It was difficult to communicate that IBC presented a different way of teaching management education not a replacement of some of the effective ways in which academics also practiced experiential learning. Some challenged the innovative features of IBC as costly and carried potential reputation risk. This criticism was quite valid. However many did not consider the additional income accruing to the subject from clients (in future) to offset some of the costs, nor the dedication of the project managers and the academic in ensuring that substandard work would not be delivered to clients. The latter does not let students ‘off the hook.’ If their work is substandard (which in this pilot did not occur) then the students’ grades will reflect this. The client will receive the best of the work which may be added to by the academic and project manager but this will be transparent to the client. In addition, although we promise professional grade work for the client they are also made aware that this is student work – they are investing in future business people and this is fundamentally an opportunity for them to learn.

2. **Engagement with industry.** Industry is looking for ways they can engage with universities differently. They are also looking at ways they can tap into a university in a networked way and to access the teaching, learning and research value and resources that are uniquely owned by universities. We know this because concurrent to the IBC program UTS Business School was also re-positioning its Executive Education offering from predominantly short course engagement to a targeted custom made offering. In Executive Education we were aspiring to work with companies on a long term and strategic basis, and building an enduring relationship that may extend beyond Executive Education. To create a virtuous circle we included our Director of Executive Education in client meetings and the Director included Jim Hutchin and/or the Associate Dean in her meetings wherever appropriate.

As a result of this collaborative approach we began an interesting and innovative relationship with one of the global consultancy companies. This consultancy company originally engaged Executive Education for work with a design thinking project; they then employed postgraduate Marketing students to undertake work with their client (and this has now developed into a unique partnership with the consultancy company training our students for client work); they have identified an opportunity to train their own high level staff in coaching and mentoring and we are using these people as mentors for the IBC subject as part of their training. The consultancy company is now hosting the trial presentations for our students and industry advisers and the catering, meeting rooms and atmosphere simulates a professional consultancy experience that meets industry adviser expectations and prepares students for engagement that goes beyond the classroom – a more satisfying experience for all concerned than a UTS Business School classroom environment. A completely unexpected development is that two of the people we are working with at the consultancy company are also now interested in undertaking a PhD with us. This engagement has grown organically – it was not planned or anticipated. Having the right infrastructure and the right programs in place however has meant that we can seamlessly connect in ways that would be impossible previously.

3. **Project Managers and Industry Advisers.** People recruited as Project Managers and Industry Advisers are often seeking intrinsic value from their engagement with us. They are not seeing a monetary reward but this has often been the only way that universities have acknowledged their input (however insubstantial that payment may be). This project has highlighted the importance of intrinsic satisfaction that Project Managers in particular have derived from the work that they do with students. They are seeking an exchange from the university that goes beyond payment. For this reason we are trying to build a ‘club’ of project managers where we can offer them exclusive invitations to events (such as Cate Blanchette and Andrew Upton speaking on Creativity and Business organised through Executive Education) or VIP cocktails with CEOs. In addition and where appropriate we have offered an Adjunct Professorship to one of our project managers. This project manager sits on a number of boards of large not-for-profit companies and has offered these companies as clients. The intellectual stimulation, the opportunity to network with others and the sense of developing young professional minds is critically important. But beyond this, our way of keeping these talented and committed project managers and industry advisers is to encase them in the ‘family’ of UTS Business School and to make them part of what we do.

The IPT contribution to management education
The pilot subject we developed has contributed to how management education can be crafted in future. It has shown how Business Schools can be relevant to industry in multi-dimensional ways. Although we began with a pilot subject based on Fox School of Business’ successful Enterprise Management Consultancy program, UTS Business School’s Integrated Business Consultancy has become a platform where enduring industry partnerships have been created. While this subject has brought a significant return on investment (time and money) it is highly intensive and in the format it runs in will remain boutique. This should not be a problem. Variety of learning and teaching strategies is necessary in all postgraduate coursework programs. However the subject
becomes symbolic in terms of authenticity in teaching and practical relevance to industry. The format is difficult to imitate because it is reliant on specific attributes personified by individuals employed on the program. This reliance on human capital is also a weakness particularly in relation to succession planning in an environment that privileges research over engagement and teaching.

Integrated Business Consulting (IBC) as part of the IPT program has demonstrated that:

1. Experiential education is demanded by students and is of value to industry.

2. The unique approach of IBC where companies and individuals in companies are engaged on a number of levels (from project managers, to industry advisers to clients) has an in-built ability to expand. This expansion goes beyond the boundaries of the subject to spread to other areas such as Executive Education, student internship/placements and research engagement.

3. Building personal relationships and contacts within industry is critical to the success of the program and underscores how important growing a sense of ‘family’ is between UTS Business School and industry. An evolving and organic relationship between industry and the UTS Business School is only achievable if the right infrastructure is in place with the right support within the Business School. The seamlessness with which Executive Education and the EMBA can work with industry has proved unexpectedly successful and indicates how industry can move with ease across our offerings.

For more details on IBC and this IPT, please see: http://www.youtube.com/watch?v=l-Gq4gyVKW8

References


Cutler, T. 2008, Venturous Australia: Building Strength in Innovation, Review of the National Innovation System, Cutler @ Co. Melbourne

Datar, S. M., Garvin, D. A. & Cullen, P. G. 2010, Rethinking the MBA, HBS, Boston

Green, R. & Agarwal, R. 2009, Management Matters in Australia: Just how productive are we? Australian Management Practices and Productivity global benchmarking project, DIISR, Canberra


Developing Managerial Skills for the Complex Inter-disciplinary Interface: Management Education as an Experiential Living Laboratory.

Professor Sandra Jones  
School of Management, RMIT

Introduction

The aim of the RMIT IPT was to identify the impact of an innovative approach to management education on student learning. The objective of the RMIT IPT was to develop and test a novel and creative approach to management education for undergraduate students designed to cultivate graduates with the cognitive and creative skills to exercise critical thinking and judgements in identifying and solving problems with intellectual independence (AQF 2011). This objective was scoped into a number of design elements:

- process through which universities could become living laboratories working collaboratively with an organisation.
- a new form of university-industry partnership to engage management academics, students and industry partners in a joint venture to explore approaches to respond to complex ‘wicked’ challenges faced by industry in a ‘safe-fail’ learning environment.
- student centred learning approach to engage students across disciplines working collaboratively.
- graduation of students with the management skills base needed to address the critical emergent issues of businesses operating in complex and changing environments.
- skills development for management educators as designers and facilitators of innovative approaches to management education.

Methodology

The project was underpinned by an action-learning, action-reflection, problem-based methodology that links universities and industry partners into a continuous cycle of learning. This is illustrated in the S-T-A-R framework (Jones 2013) in which learning engagement is designed to link theoretical knowledge to industry practice through application and engagement of students; knowledge is shared across disciplines through opportunities for integration of cross-disciplinary knowledge; and new knowledge is discovered from the learning interaction between students, academics and industry to assist organisations to deal with complex issues. The action-learning, action-reflection process enabled continuous change, modification and development of proposal for action, lessons learnt for managing complex issues, cross-discipline teamwork skills development and identification of emergent managerial skills as they developed.

This methodology was used to underpin two interlinked cycles of activity. First, the design of the learning activity by management academics working with industry representatives and second students engaged in the learning process.

The first cycle (Figure 1) involved academics and industry partner:

- Planning - design and development of the IPT
- Acting - implementation of the IPT
- Analysing and Reflecting - identifying and responding to emerging challenges
- Re-planning - based on lessons learnt from the IPT change to embed the IPT design as part of ongoing management education.

Figure 1:
Design and Development of IPT

---

27 The author acknowledges the contribution to the RMIT IPT of: Jason Downs course co-ordinator Strategic Management and Early Career Academic; Dr Jacinta Ryan, management academic responsible for the RMIT IPT student cohort; Professor Roger Hadgraft, Professor of Innovation, School of Aerospace, Mechanical and Manufacturing Engineering, RMIT; Dr Ross Colliver (President), The Riddells Creek Land Care Group, Dr Russell Best (Vice President), The Riddells Creek Land Care Group, Gill Best (Secretary), The Riddells Creek Land Care Group, Mr Lachlan Milne, Environmental Policy Officer, Macedon Ranges Shire Council, Mr Steve Thuan, Major Projects and Investment Coordination Manager, Port Phillip and Westernport Catchment Management Authority. Mr Ian Morgans, Strategy and Investment Leader, Port Phillip and Westernport Catchment Management Authority. Students engaged in the RMIT IPT

The second cycle (Figure 2) involved academics, the industry partner and students engaged in the learning process:

- **Planning** – establishment of student cross-disciplinary teams
- **Acting** – theory, models and frameworks of strategic management and the empirical case study
- **Analysing and Reflecting** – based on feedback on the first piece of assessment
- **Re-planning** – research needed and team process for second assessment.

These learning design principles were incorporated into a new partnership approach to university-industry engagement for business education through the development of a learning space in which students, academics and industry representatives worked collaboratively. Termed a ‘living laboratory’ (illustrated in the overlapping space in Figure 3), this learning space provided a ‘protected’ environment in which organisations can bring emergent complex issues that they face for students to explore potential solutions without adverse consequences that occur in the real-world work environment.

i) The teaching design principles that underpinned the RMIT IPT were based in the scholarship of learning and teaching associated with a blended approach that incorporates both face-to-face and virtual (online) learning opportunities. This approach enabled a combination of face-to-face lectures in which to disseminate information about the theories, models and frameworks of strategic management as well as the background on the complex problem facing the industry partner. Face to face tutorials were designed to scaffold and facilitate student ability to apply theory to the complex problem and more detailed understanding of the complex problem facing the industry partner. Technology was used to provide online learning opportunities through the use of a learning management system by which students could access written and auditory lecture material. In addition, collaborative software was used to assist students, academics and industry partners to share information.

**Figure 2:**
Student learning engagement

<table>
<thead>
<tr>
<th>PLAN</th>
<th>ACT</th>
<th>RE-PLAN</th>
<th>ANALYSE/REFLECT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cross-disciplinary team process</strong></td>
<td><strong>Link theory to practice</strong>&lt;br&gt;<strong>Research</strong>&lt;br&gt;<strong>Discuss with industry partner</strong>&lt;br&gt;<strong>Explore options</strong></td>
<td><strong>Re-plan learning activity and team process for second assessment</strong></td>
<td><strong>Feedback from first assessment</strong></td>
</tr>
</tbody>
</table>

The design principles

The design that underpinned the RMIT IPT included three interlocking principles - learning design, management education design and teaching design.

i) The learning design principles that underpinned the RMIT IPT were based in the scholarship of learning and teaching that places emphasis on the importance of situated and authentic practice-based student-centred learning that provides students with real-world experiences facing managers. This was combined with scholarship of learning and teaching related to problem-based learning approaches that provide students with the opportunity to use theories, models and frameworks to explore issues of complexity facing industry.
ii) The management education design principles that underpinned the RMIT IPT were based in the Principles of Responsible Management Education (PRME-2007). The PRME were mapped against the aims of the course chosen for this IPT, Strategic Management (see Table 1). In this way the IPT sought to create an educational framework by which to graduate students able to be future generators of sustainable value in a socially responsible manner. The IPT sought to provide an example of a partnership between university and industry that would engage a variety of stakeholders (students, management educators and industry representatives) in a creative learning approach. This approach is aimed at graduating students with skills in strategic management, who are able to effectively respond to business challenges.

Table 1: Mapping Principles of Responsible Management against the IPT (Strategic Management)

<table>
<thead>
<tr>
<th>PRME</th>
<th>RMIT IPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification of the purpose of developing capabilities of students to be future generators of sustainable value.</td>
<td>Skills focus on developing integrative thinking skills for strategic management in complex interdisciplinary environments.</td>
</tr>
<tr>
<td>Incorporation of values of global social responsibility in academic activities</td>
<td>Choice of industry partner – NFP, voluntary organisation.</td>
</tr>
<tr>
<td>Creation of educational frameworks as the method to enable effective learning for responsible leadership.</td>
<td>Design of IPT as a ‘living laboratory’.</td>
</tr>
<tr>
<td>Engagement in research that advances understanding about roles in the creation of sustainable social, environmental and economic value.</td>
<td>Complex problem identified related to social and environmental concern.</td>
</tr>
<tr>
<td>Environmental and economic futures.</td>
<td>Wicked problems identified that involved balance of environmental and economic issues.</td>
</tr>
<tr>
<td>Examples of partnerships with managers to extend knowledge of effective response to challenges.</td>
<td>NFP partner engaged to provide information for students.</td>
</tr>
<tr>
<td>Dialogue with interested internal and external stakeholders on critical issues related to social responsibility and sustainability.</td>
<td>Industry bodies stakeholders in the complex issues engaged in information provision to students.</td>
</tr>
</tbody>
</table>

Implementation and emerging challenges

A framework was designed to assist implementation of the IPT. This framework is based on four basic tenets that were identified from the design principles. These were and conceptualised into a ‘4E Management Skills Development Framework’ (Figure 4):

Figure 4: 4E Management Skills Development Framework

i. ENACT the Living Laboratory to enable all stakeholders to collaborate in a ‘safe-fail’ environment in which experimentation with different responses to complex problems can occur.

ii. ENABLE student skills development through authentic learning opportunities in which students apply theoretical concepts to real-world complex issues.

iii. EVALUATE the degree to which students developed employability skills to address the critical emergent issues of businesses operating in complex and changing environments.

Specific actions taken to develop and implement each of these tenets are identified in details below.

i. Engage stakeholders:
Stakeholders on the RMIT ITP included students, industry partners and management educators.

Management educators
As indicated in the proposal for the RMIT IPT (see attachment 11), it was the intent to engage two Early Career Academics (ECA), (one from Management and one from Engineering) to
‘shadow’ the academic leaders of the IPT. This design element was included to enable dissemination of the IPT to more academics to encourage embedding of the project as a more permanent fixture of management education. In the interim the Management ECA selected for this IPT was appointed as the Course Co-ordinator for the Melbourne-based offering of Strategic Management (the course is also offered by RMIT in Singapore and Vietnam). In this event the decision was made to appoint only one ECA to the project and to use the allocated funding to support additional time release for this ECA to the project. This enabled the ECA to not only ensure the IPT was allocated additional time to facilitate its successful implementation, but also to ensure that all of the students (a total cohort of 325 students were enrolled in Strategic Management in the semester in which the IP was trialled) received an equitable learning experience.

From the team of management educators allocated to the Course (a mixed team of six full-time and sessional academics), one sessional academic educator staff member was chosen to take responsibility for the group of students engaged in the IPT. This appointment was based on the sessional staff members’ previous experience in working on projects aimed at identifying student learning experience from work-integrated-learning, on collaborative research projects with the project leader in student research skills development, and on her availability to engage in related aspects of the IPT. She was also appointed as the academic educator responsible for several other tutorial groups enrolled in Strategic Management. This provided the potential to identify any difference in the learning experience of the IPT and the non-IPT tutorial groups.

The entire team of management educators for Strategic Management was kept informed of the aim, design and progress of the IPT as a further step to ensure an equitable learning experience for all enrolled students (in Strategic Management).

The emerging challenge identified from implementation of this tenet is the additional time involved in designing and implementation of innovative approaches to management education. This is a particular challenge in the current climate of focus upon research outputs by academic staff for purposes of reward and recognition.

**Industry partner**

The IPT was discussed with several industry partners from the private, government and not-for-profit (NFP) sectors. It was explained that the expectation of industry input would be structured to limit demands on their time, but that there would be some expectation of engaging with students periodically over a 12 week period, and being available for a final student presentation of their findings. The emerging challenge was to explain and gain commitment to the aim of the IPT that is to develop students skills in responding to real-world of work complex problem, rather than an expectation of students would act as consultants who would identify a viable solution for the organisation. The industry partner eventually chosen was a NFP organisation (the Riddells Creek Land Care Group (www.riddellscreeklandcare.org.au), consisting of voluntary members. This group was chosen because:

- Members were willing to participate in a trial of the living laboratory, university-organisation collaboration. The organisation also saw the potential of the trial to create new relationships with relevant government bodies.

- The complex problem identified had both strategic management and engineering (environmental) elements and thus had the potential for students to share their separate disciplinary knowledge. The problem was long-standing and the organisational members did not have an expectation of a simple cause and effect solution and were thus keen to have students exercise their new knowledge and skills.

- Members were willing to engage with students and also offered access to several of the organisation’s stakeholder groups (local council, state government planning and facility organisation) with which they themselves engage. This enabled students to access a multitude of external organisations and, through this, to develop deeper insight into the process of strategic management.

In addition members of the Riddells Creek Land Care Group arranged access to the Macedon Ranges Shire Council and the Port Phillip and Westernport Catchment Management Authority. Both these organisations became second tier industry partners.

**Students**

Students enrolled in a third year course in Strategic Management from two programs – the Bachelor of Business Management and the double-degree Bachelor of Engineering/Bachelor of Business Management were invited to self-nominate to participate in the IPT. The IPT was limited to 25 students with selection criteria including

- to be enrolled in the final year of either the Bachelor of Business or the double degree (Bachelor of Engineering/Bachelor of Business Management)

- to have no previous course failures

- to be undertaking a standard number of courses in one semester (4 or 5).
Selected students for the IPT were timetabled into one tutorial to undertake a different team process (cross-discipline) and project (on a complex issue) from the mainstream of students enrolled in the course. These students self-selected into one of six cross-discipline teams in the first tutorial. Each team was made up of an equal numbers of double degree engineering students and business management students. Students were asked to work together in teams in a co-rational (rather than linear) approach. Five groups of between 5-6 members were established.

Several challenges emerged from this implementation:

• First, the additional challenge for students of being engaged in a real-life industry issue. This requires management educators to possess a different skills set as facilitators of student learning.
• Second, the need to ensure that all students (including those not in the IPT) were presented with an equitable learning opportunity.

This was achieved by the industry partner agreeing to present the larger student cohort with a less complex issue related to how they should develop a long-term strategic management approach. The opportunity to present one proposal (the top assessed proposal) from the larger student cohort to the industry partner was also made available.

These changes ensured that the entire cohort of students could experience the advantage of the situated, authentic learning environment as part of a broader implementation of the living laboratory concept.

### ii. Enact

The ‘living laboratory’ learning environment engaged the IPT management educator team and the industry partner in discussion over an 8-week pre-semester period. It involved several face-to-face meetings and on-line communication (through email) to identify the scope of the complex problem and ensure that it was manageable for the students.

This was addressed by the ECA Course Co-ordinator sourcing technically-advanced communication software and this being used by the IPT management educator team to improve the effectiveness of communications. This assisted decision making as well as accurate and timely tracking of action implementation. It did not include the industry partner in order to limit the time demands on them.

The emerging challenge from implementation of this tenet involved the need to develop an efficient communication process between students, between students and the industry partner, and between the academic educator course team and the IPT teams. The choice of an ECA with an interest in, and ability to source and use, collaborative software was helpful. However this was a further indication of the additional time required to be allocated to ensure the IPT was effectively implemented.

The second emerging challenge was the question of what skill sets are required of management academics involved in innovative approaches to management education. This requires further discussion.

---

### Table 2: IPT scaffolded against Graduate Attributes

<table>
<thead>
<tr>
<th>Strategic Management</th>
<th>Innovative Practice Trial</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AIM</strong></td>
<td></td>
</tr>
<tr>
<td>Provide different perspectives on the role of strategy in organisational success.</td>
<td>Develop and test a novel and creative approach to management education for undergraduate students designed to cultivate graduates</td>
</tr>
<tr>
<td>Examine concepts, theoretical frameworks &amp; techniques for strategic management process</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>GRADUATE ATTRIBUTES (AQF)</strong></th>
<th><strong>Creative, integrative-thinking skills to lead in complex interdisciplinary environments</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Think analytically - integrate and link components of strategic frameworks to outcomes.</td>
<td>Issues - inter-disciplinary communication, teamwork, relationship building, negotiation &amp; conflict resolution. Research, judgement and critical application skills</td>
</tr>
<tr>
<td>Synthesize - apparently competing frameworks into unifying models</td>
<td>Principles for Responsible Management Education</td>
</tr>
<tr>
<td>Articulate, apply, examine, and evaluate strategic frameworks on an industry partner strategy</td>
<td>Articulate, apply, examine, and evaluate strategic frameworks on an industry partner complex issue</td>
</tr>
</tbody>
</table>
iii. Enable

The IPT was designed to engage students over a 12-week teaching semester enrolled in a compulsory course (Strategic Management) offered as a final year to students enrolled in undergraduate Business degrees as a compulsory management course. The graduate attributes identified for the course, were scaffolded against the aims of the IPT as shown in Table 2.

The assessment tasks designed for the IPT had two components -

- An analysis of the industry partner’s organisation using the principles and models of strategic management (10,000 word report + strategy map). All students enrolled in the course undertook this assessment.

- A proposed strategic solution to the complex problem identified by the industry partner (10,000 word report + strategy map + self-reflection essay). Only students participating in the IPT undertook this specific assessment (other students were required to undertake a similar assessment but related to a long term strategic management response for the organisation).

The complex issue chosen for the students to work on was: What management strategy could the Riddles Creek Land Care Group (RCLCG) identify to assist environmental preservation of an area of land that was owned by multiple, disparate people whose details were unknown to them?

The strategic management issue for the larger student cohort was: How can the Riddles Creek Land Care Group (RCLCG) build a management strategy to encourage support for their aim of environmental stability?

Students participated in weekly lectures and fortnightly tutorials. The weekly lectures included the provision of theories, models and frameworks related to Strategic Management and several presentations by the industry partner. The tutorials included facilitation of student group activity in the utilisation of the theories and models of strategic management to address the complex issue. The industry partner made several presentations to the students to provide information and answer questions. In addition the Environmental Officer for the Macedon Ranges Shire Council and the Major Projects and Investment Coordination Manager and the Strategy and Investment Leader for the Port Phillip and Westernport Catchment Management Authority agreed to participate.

Online collaborative software was sourced and used to:

- enable students to agree on ‘Top ten questions’ to ask industry partners.

- online interview and record broader stakeholder groups from the Macedon Ranges Shire Council Port Phillip and Westernport Catchment Management Authority. This was made available to the students.

Emerging challenges associated with the implementation of the IPT revolved principally around the additional workload and the additional skill set required of management educators. In terms of workload there was need to allocate additional time and planning to ensure that:

- internal university policy and systems requirements were met (including obtaining ethics approval for research associated with the IPT).

- all students were treated equitably. Given that the IPT involved a small group of students from a much large cohort enrolled in the course, additional planning was required by the Course Co-ordinator to ensure equity of learning experience and assessment for all students. This was achieved through detailed planning and the agreement of the industry partner to also engage with students in the larger cohort on a longer term strategic management issues they faced.

- all stakeholders were involved in planning and ongoing communication.

In addition to discipline knowledge, management educators need to have skills to facilitate student learning. The IPT highlighted the need to assist students as they develop effective groups, become comfortable with the ambiguity associated with complex real-world problems, seek to use theory as part of a problem-based approach to learning.

A third related challenge is the additional demands on students. The enormity of the task placed additional pressure on students beyond that of a typical single semester (12 week period) course and led to an increase in student anxiety. Students referred to an increased sense of responsibility in delivering on a project that was so real because it involves a real organisation. In addition, the group-work basis of the larger assessment tasks caused concern for students who were unskilled in developing strategies to respond to ‘social loafing’.

iv. Evaluate

Each of the six teams that made up the IPT was invited to verbally present their findings to the industry partner. While this did not form part of their formal course assessment, it did provide a valuable opportunity for industry feedback. To assist student teams in their presentation a special session was held by the Course Co-ordinator on how to present their findings.

The emerging challenge from this was the difficulty of assessing student skill development over a single semester, particularly as there had been no initial skills assessment to use
as a comparison. Consequently a self-evaluative process was designed to obtain feedback from the various stakeholders as to the effectiveness of the learning environment. This included obtaining RMIT ethics approval to:

- design and implement a student survey of their experience in the IPT.
- hold several focus groups (with the industry partner, the teaching team and the IPT project team).

**Outcomes measured against objectives**

In terms of the objectives set for the IPT, feedback indicates that the RMIT IPT was successful in the design and implementation of an innovative management education approach, as summarised in Table 3.

First, the Living Laboratory worked effectively to engage management educators, industry partners and students in a collaborative approach to developing student skills. However the focus on a complex problem appears to have been less relevant than the emphasis on students using a problem-based approach to a real-life problem with industry input was more important.

Given the positive feedback, the design of the IPT has been extended to form a permanent learning design feature of Strategic Management. In Semester 2 2013 an industry partner from private sector has been involved in a similar collaborative Learning Laboratory process. It is planned that this will continue in 2014.

Second, management educators were positive about the level and form of student engagement across disciplines, however students were more divided in their feedback. While the management student cohort was positive about the level of sharing knowledge across disciplines, engineering students were less positive. This suggests that further change is required to the learning environment to achieve cross-disciplinary knowledge sharing, perhaps in the choice of industry partner or the problem identified. It also suggests that a more guided approach by the management educators is needed to facilitate student exchange of disciplinary knowledge.

Third, while the difficulty of objectively identifying improvement in student employability skills from one particular IPT is recognised, student self-analysis was positive about the skills they developed in critical thinking and problem solving. This was not, however, the case for self-identification of the development of group-work skills, although negotiation and conflict management skills were recognised as having been developed. This suggests there is more need to identify the various elements that contribute to positive group work skills.

Finally, the issue of developing the skills of management educators as designers and facilitators of innovative approaches to management education was unable to be identified. There was evidence that new skills sets are required of management educators to facilitate the approach to learning undertaken in the IPT. This needs to be further explored.

**Lessons learned**

Analysis and reflection upon the IPT experience identified a range of challenges and several important lessons for innovative management education can be identified (Table 3).

First, the living laboratory concept forms a strong basis upon which a new form of collaboration between management educators and industry can provide a more authentic learning environment for students. It creates a learning environment that enables students to use theories of management to address strategic and complex issues, within a ‘safe-fail’ environment. At the same time it provides industry with the opportunity to experience and explore the knowledge of new graduate recruits.

However, this creates challenges that need to be addressed. First, management educators need to be willing to engage with industry to identify current challenges they face. Second, industry representatives need to recognise the importance of engaging with management educators and students as part of a constructive learning and skills development process and commit time to provide detailed information on the challenges they face. This also requires a further move away from seeing students working on problems as virtual consultancies.

Second, while the IPT provided valuable learning experience with students responding positively to the real-world, problem-based learning environment, the stretch challenge for students requires several adjustments to the design. The additional demands on students suggest that such learning environments need to be located in the last year of an undergraduate degree, perhaps as a ‘capstone course’, with skills development gradually scaffolded as part of a learning pathway during earlier years of the undergraduate degree. It also suggests that such a learning experience warrants greater credit than a single semester, single unit of study.

Third, the online environment provides considerable opportunities to add value to the face-to-face learning engagement. However, while a technology learning platform and communication software enhances the learning environment, it does not replace the importance of the face-to-face learning environment. Indeed innovative management education of the kind designed for this innovative trial requires more, rather than less, face-to-face engagement to facilitate skills development.
Fourth, management educators engaged in designing and implementation of such innovative management education opportunities require a greater time allocation, as well as new skill sets, to effectively support the student learning. The key challenge of time commitment was identified throughout the IPT as necessary for developing ECAs able to design and deliver such a learning approach. The associated graduate advances in skills for emergent complex issues also require more development and evaluation time to allow them to be more broadly applied, industry relevant and funded by universities already required to deliver on many fronts.

Table 3: IPT Objectives and Feedback

<table>
<thead>
<tr>
<th>IPT Objective</th>
<th>Feedback</th>
<th>Lessons learned</th>
</tr>
</thead>
</table>
| Process through which universities could become living laboratories working collaboratively with an organization. | **Industry partner:**  
- I’m really looking forward to what the students throw at us. The whole thing is a fascinating experiment  
- I’m enjoying it very much and I can’t wait to see what they come up with!  
- This gives us plenty to work on as we head into the new year (after our AGM). Thanks to all at RMIT, and especially Jason Downs, who believed in the value of giving students real-world experience and supported the students’ right through.  
**Management educators:**  
- The industry partner mentioned that as an organisation they have had to stop and re-think some of what they have been doing and what they believe.  
- The questions that you asked have been having a real impact on the RCLCG.”  
**Students:**  
Be willing to learn because this course gives you something that other courses do not, that is working on a real-life organisation. | The Living Laboratory provided an important environment for collaboration, provided management educators are upskilled as facilitators of learning and industry representatives see their involvement as part of the educative process. |
| New form of university-industry partnership to engage management academics, students and industry partners in a joint venture to explore approaches to respond to complex ‘wicked’ challenges faced by industry in a ‘safe-fail’ learning environment. | **Management educators**  
- The integration of cross-disciplinary students worked seamlessly in the classroom. The students worked very well in their groups with few challenges in terms of equity of contribution.  
- All students appeared highly engaged in all the tutorials  
- The quality of work submitted would suggest that groups performed well and worked well together. | There is need to scaffold learning so that students have the skills to work more independently and academic educators have the necessary time to allocate to additional facilitated learning. |
| Student centred learning approach to engage students across disciplines working collaboratively. | **Management educators**  
- The integration of cross-disciplinary students worked seamlessly in the classroom. The students worked very well in their groups with few challenges in terms of equity of contribution.  
- All students appeared highly engaged in all the tutorials  
- The quality of work submitted would suggest that groups performed well and worked well together. | There is need to scaffold learning so that students have the skills to work more independently and academic educators have the necessary time to allocate to additional facilitated learning. |
### Table 3: IPT Objectives and Feedback

<table>
<thead>
<tr>
<th>IPT Objective</th>
<th>Feedback</th>
<th>Lessons learned</th>
</tr>
</thead>
</table>
| Graduation of students with the management skills base needed to address the critical emergent issues of businesses operating in complex and changing environments. | **Students:**  
1. **Critical thinking skills:**  
   - The work with RCLCG certainly required students to demonstrate more skills in research, critical thinking and problem-solving than the other case study based work has needed.  
   - Yes, I do think they had to work harder and show more effort in critical thinking and research than before  
   - make the most of this subject. It is a great learning experience and you can really use it to work on skills for the workplace and provides real experience that you can use as a talking point for job interviews.  
2. **Groupwork**  
   - Make sure your group members are pulling their weight because this is such a huge group assignment. Luckily, I had a fantastic group which made things a lot easier….  
   - Communication with your team member is important thing to help you achieve your group assignment.  
   - Make sure group meetings are held continuously, this is highly recommended in order to make sure everyone is on track as these assignments require optimal levels of integration throughout the report. | There is need for a blended approach to learning so that students, academic educators and industry partners can share information and develop new knowledge both face-to-face and using the virtual environment. |
The Future of Management Education in Australia
Is borderless learning the answer?

NATIONAL FORUM
February 6, 2013
Macquarie University (CBD Campus)
Level 3, 10 Spring Street, Sydney

COMPETE GLOBAL and COLLABORATE LOCAL/ GLOBAL
Rationale
Knowledge and learning pathways are in constant development. It is the age of integrated, real time learning: accessible at anytime from anywhere. Both the providers and recipients of tertiary education are seeking a return for their efforts. Contemporary skills and knowledge in the pursuit of enterprising endeavour is the prevailing imperative. Therein lays the value proposition!

Tertiary education institutions are required to compete globally. One driver of meeting this competition is to scale-up by collaborating both locally and internationally. Implementation of collaborative initiatives such as MOOCs will involve structural reform, strategic resource allocation, updated governance practice and new IT platforms at the institutional level.

Topics for Discussion

<table>
<thead>
<tr>
<th>Effort</th>
<th>Pedagogical resources, scalability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dividend</td>
<td>Curriculum v Knowledge</td>
</tr>
<tr>
<td>Commercial Dividend</td>
<td>(can the commercial value of knowledge be quantified?)</td>
</tr>
<tr>
<td>Student Experience</td>
<td>On-campus experience, live support, validation of learning</td>
</tr>
<tr>
<td>Quality Assurance</td>
<td>Subjective participation v External arbitration</td>
</tr>
<tr>
<td>Brand Management</td>
<td>Partnership, publicity, international exposure</td>
</tr>
</tbody>
</table>

Expected Outcomes from the Forum

<p>| Tertiary Education Providers | Calibrate external validation regarding the MOOC value proposition. Engage with industry/business re the ‘fit for purpose’ of borderless management education. Contribute to ABDC’s position on MOOCs re market development, utility, credentialism, quality assurance, and the student experience |
| Business / Industry | Respond to the MOOC value proposition in the management education and training ecosystem. Express views directly to universities about future industry/business and workforce needs, and how MOOCs may facilitate meeting those needs. Engage with universities on matters relevant to specific industry or local market economy requirements. |
| Government | Express views directly to universities about future industry/business and workforce needs, and how MOOCs may facilitate meeting those needs. Assemble relevant information about system development re quality assurance, credentialism and market development. |</p>
<table>
<thead>
<tr>
<th>Programme</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>0910 Welcome</td>
<td>Prof Leigh Wood, Assoc. Dean – Learning &amp; Teaching, Faculty of Business &amp; Economics, Macquarie University</td>
</tr>
<tr>
<td>0915 Opening Remarks</td>
<td>Bill Scales AO, President, Business/Higher Education Round Table</td>
</tr>
<tr>
<td>0925 – 0950 To MOOC or NOT: Is there a Choice?</td>
<td>Prof Margaret Gardner AO, Vice-Chancellor, RMIT University</td>
</tr>
<tr>
<td>0955 – 1020 What is the Value Proposition of Management Education via a MOOC?</td>
<td>Prof Timothy Devinney, Professor of Strategy, UTS Business School, University of Technology Sydney</td>
</tr>
<tr>
<td>1020 – 1035 MORNING TEA</td>
<td></td>
</tr>
<tr>
<td>1040 – 1110 KEYNOTE Openness, creativity, collaboration – the possibilities of an online world</td>
<td>Andrew Y Ng, Co-CEO &amp; Co-founder, Coursera; Assoc Prof, Computer Science Dept, Stanford University (via video link)</td>
</tr>
<tr>
<td>1115 – 1140 Universities’ Future: funding, students, knowledge in a digital world</td>
<td>Prof Michael Porter, Professor, Public Policy, Alfred Deakin Research Institute</td>
</tr>
<tr>
<td>1145 – 1210 Contextualised business learning at scale</td>
<td>Wes Sonnenreich, CEO, intersective</td>
</tr>
<tr>
<td>1215 – 1240 The Constancy of change</td>
<td>Tom Hockaday, Managing Director, ISIS Innovation</td>
</tr>
<tr>
<td>1245 – 1315 LUNCH</td>
<td></td>
</tr>
<tr>
<td>1320 – 1345 The realities of educating in an online world</td>
<td>Paul Wappett, CEO, Open Universities Australia</td>
</tr>
</tbody>
</table>
| 1350 – 1440 The university’s place in the global community | Prof Phillip Long, Director – Centre for Educational Innovation & Technology, University of Qld  
Justin Bokor, Executive Director – Commercial Development, Monash University |
| 1445 – 1510 Innovative Practice Trial update | Prof Roy Green, Dean, UTS Business School, University of Technology Sydney |
| 1515 – 1530 Open Floor - momentum and criteria for sustainable change | Prof Leigh Wood, Assoc. Dean – Learning & Teaching, Faculty of Business & Economics, Macquarie University |
| 1545 - 1615 POST-FORUM NETWORKING DRINKS |                                                                         |

**Speaker Profiles**

**Bill Scales AO**

Bill is the President of the Business/Higher Education Round Table, and Chancellor of Swinburne University of Technology (since 2005). In addition, Bill is currently Chairman of the Port of Melbourne Corporation and a Council Member of the Victorian Division of the Australian Institute of Company Directors (AICD), a member of the Expert Panel established by the Australian Government to conduct the review of Funding for Schooling and a Member of the Veolia Australia Advisory Board. Bill’s most recent appointment is as a panel member of the Victorian Government Review into Child Protection.

Bill was previously Group Managing Director, Regulatory, Corporate and Human Relations, and Chief of Staff at Telstra. While at Telstra he was a Director of IBM Global Services Australia, an associated entity of Telstra, a director of the Telstra Foundation and Chairman of the IT Skills Forum Industry Reference Group, IT Skills Hub P/L and a commissioner for the Commonwealth Safety Rehabilitation and Compensation Commission.

From March 1998 until June 2000 Bill was Secretary to the Department of Premier and Cabinet in Victoria. Prior to his appointment as Secretary of the Premier’s Department, Bill was Chairman and CEO of the Industry/Productivity Commission.

**Professor Margaret Gardner AO**

Professor Margaret Gardner was appointed as Vice-Chancellor of RMIT University in April 2005, having previously held the position of Deputy Vice-Chancellor (Academic) at the University of Queensland. She has extensive academic experience, having held various leadership positions in Australian universities throughout her career.

Professor Gardner has provided strategic advice on educational pathways, human resource management, equity and employment and industrial relations to governments, industry and a broad range of institutions. She has also served on the boards of a number of bodies, including in the arts and education sectors.

She is currently a member of the Council of Australia Latin American Relations Board and Chair of their Education Advisory Group, a member of the LH Martin Institute Advisory Board, the ANZAC Centenary Advisory Board, and International Education Advisory Council.

Professor Gardner chairs the Museums Board of Victoria, RMIT International University Vietnam Pty Ltd RMIT Vietnam Holdings Pty Ltd as well as the Strategic Advisory Board, Office for Learning and Teaching and is a director of Open Universities Australia and the Fulbright Commission Advisory Board.
In 2007, Professor Gardner was made an Officer of the Order of Australia in recognition of service to tertiary education, particularly in the areas of university governance and gender equity, and to industrial relations in Queensland.

**Professor Timothy Devinney**

Timothy Devinney (BSc CMU; MA, MBA, PhD Chicago) is Professor of Strategy at UTS. He has held positions at the Chicago, Vanderbilt, UCLA and Australian Graduate School of Management and been a visitor at many other universities. He has published 7 books and more than 90 articles in leading journals including Management Science, The Academy of Management Review, Journal of International Business Studies, Organization Science and the Strategic Management Journal.

He is a fellow of the Academy of International Business, ANZAM, and the AIM (UK) and an Alexander von Humboldt Research Awardee and Rockefeller Foundation Bellagio Fellow. He is Past-Chair of the International Management Division of the AOM and Chair of the Global Strategy IG of the Strategic Management Society. He is currently on the editorial board of over 12 of the leading journals, Director of the SSRN international management network, and Co-Editor and Advances in International Management (Emerald).

**Andrew Y Ng**

Andrew Ng is a Co-founder of Coursera, and a Computer Science faculty member at Stanford. In 2011, he led the development of Stanford University’s main MOOC (Massive Open Online Courses) platform, and also taught an online Machine Learning class that was offered to over 100,000 students, leading to the founding of Coursera.

Ng’s goal is to give everyone in the world access to high quality education, for free. Today, Coursera partners with top universities to offer high quality, free online courses. With 33 university partners, over 200 courses, and more than 2.3 million students, Coursera is currently the largest MOOC (Massively Open Online Courses) platform in the world. Outside online education, Ng’s research work is in machine learning; he is also the Director of the Stanford Artificial Intelligence Lab.

**Professor Michael Porter**

Professor Porter has held leadership roles in universities, a think tank in the Department of Prime Minister and Cabinet (DPM&C), central banking and international institutions as well as in the private sector, specialising in advancing economic reform agendas. His focus has been on bridging the gaps between advances in economic thinking and government implementation of economic policy and institutional reforms, both in Australia and internationally.

After completing his PhD at Stanford University, his initial work outside universities was as an Economist at the International Monetary Fund (IMF). His focus was to do with international finance, monetary and tax policies.

Subsequently, Michael’s focus shifted to policy issues in Australia, through leading advisory and policy roles at the Reserve Bank of Australia and then the Priorities Review Staff of the Department of Prime Minister and Cabinet (DPM&C).

After appointments at the ANU and as a Professor at Monash University in 1980 Michael formed a new research centre within Monash University, The Centre of Policy Studies (CoPS) and later, the privately funded Tasman Institute and Tasman Asia Pacific in 1990.

Following pioneering work on energy reform, trading, unbundling and privatization, he was awarded in 1982 a Commonwealth Research Centre of Excellence Award - $2.6M. The reform agendas, such as the Reform of State Owned Enterprises in Victoria, Energy Pricing Issues in Victoria, National Priorities Project, the Markets and Environment Project, New Strategies for Transport in Victoria formed the basis for Project Victoria.

**Wes Sonnenreich**

Wes Sonnenreich is the CEO of intersective, the company that enables work integrated learning at scale. He brings to intersective over 16 years of experience leading entrepreneurial companies and intrapreneural projects. Wes was previously the GM of Innovation, Science and Technology for Sirius Minerals, a listed global mining company. Wes created new business options and R&D strategies to help grow Sirius from a team of three and a market capitalisation of $15M at the time he joined to over $500M with 100 employees when he left three years later. Sirius was recently ranked the 11th most innovative company in Australia by BRW. Prior to founding intersective, Wes was National Director of Deloitte Australia’s globally recognised Innovation program where he led a team charged with catalysing business growth.

Prior to moving to Australia in 2005, Wes was the co-founder of three technology start-ups which achieved profitability within two years of founding. Previous companies based in Boston and New York operated in the fields of education, information security, software development and data analytics. Wes is a hands-on software architect and developer, and has strong software architecture, project management and programming capability across a wide range of applications and platforms. Wes is a Computer Science graduate of M.I.T. as well as Harvard Business School’s executive MBA program and is a widely published author, university lecturer and corporate speaker.

**Tom Hockaday**

Tom Hockaday is the Managing Director of Isis Innovation Ltd, the University of Oxford’s wholly owned Technology Transfer Company. Tom joined Isis in March 2000 and became Managing Director in 2006; he has led the international expansion of Isis including establishing Isis offices in Hong Kong, Madrid and Kyoto. Tom’s move to Oxford followed seven
years in technology transfer at Bristol University, where he was Managing Director of Bristol Innovations Ltd, and four years previously at University College London. In 2003 Tom was Chairman of UNICO, the UK’s university technology transfer association. Tom is currently the ‘senior member’ of the Oxford Entrepreneurs student society, and a member of the UK EPSRC Strategic Advisory Network.

Isis Innovation is an international technology transfer and innovation management company. Established in 1987 to provide Oxford University researchers with commercial advice on patenting, licensing, and spin-out company formation, Isis has grown over the years and now includes Oxford University Consulting which provides access to the expertise of Oxford University’s academic researchers, and Isis Enterprise which offers consultancy to government, university and industry clients around the world.

Paul Wappett
Paul Wappett is the Chief Executive Officer of Open Universities Australia (OUA), Australia’s leader in online learning.

Under Paul’s direction, OUA is set to revolutionise learning online and provide as many people as possible with open access to a tertiary education.

Paul is responsible for over 300 staff within Australia and provides the strategic direction and leadership required to facilitate the learning and development of over 55,000 students.

A lawyer by profession, Paul’s previous positions have included legal roles at Clayton Utz and Mobil Oil Australia, and commercial roles with CPA Australia and the Western Bulldogs Football Club.

Paul is also the Chairman of Berry Street, the largest child protection agency in Victoria.

Professor Phillip Long
Dr Long is Professor of Innovation and Educational Technology in the School of ITEE and, director of the Center for Educational Innovation and Technology (CEIT) at the University of Queensland, dedicated to research on digital learning environments. The centre explores strategic use of space (physical and virtual) and emerging technologies for learning & collaboration. Prof Long’s current research interests’ focus on designing digitally mediated learning patterns that reveal learner interactions and visualise the process. Personalisation of learning patterns and applying them at scale are current major themes. He is also a Visiting Researcher in the Centre for Educational Computing Initiatives at MIT.

Dr Long’s professional activities include: the New Media Consortium Board, NMC Horizon Project (Higher Education & Technology Outlook); Pearson Australia Advisory Board; Co-Chair of the Southern SoLAR Flare in 2012, and the 1st International Learning Analytics and Knowledge Conference 2011; Immersive Education, Australian Chpt Advisory Board; the Association for Authentic, Experiential & Evidence-based Learning (AAEEBL) Advisory Board; & co-editor of the Journal of Learning Analytics.

Justin Bokor
Justin Bokor is Director, Commercial Development at Monash University, with responsibility for helping to identify and grow new business opportunities. Prior to that, Justin was a Director in the Advisory business of Ernst & Young, where he was an advisor to public and private sector organisations, with a focus on strategy and growth.

Justin is a regular presenter on higher education reform and the impact on higher education institutions. In his advisory career, he consulted extensively to education sector clients in Victoria and nationally, including the Victorian Department of Education (DEECD), the Federal Department of Education (DEEWR), Victorian high schools, TAFE providers, dual sector universities including Victoria University and RMIT University, the Group of Eight, the ATN, and more than a dozen other universities around Australia.

Justin combines his corporate work with active contributions in the not for profit sector, including in recent years the Melbourne Forum, the Ernst & Young Foundation, Sacred Heart Mission and Melbourne Cares.

Justin has extensive international experience, having lived and worked in China, Hong Kong, Singapore, Vietnam, Indonesia and the United Arab Emirates.

Professor Roy Green
Roy gained his doctorate from the University of Cambridge and has worked on innovation policy with governments and business around the world. He has led projects for the OECD’s National Innovation Systems programme and the European Union’s Seventh Framework Programme for Research and Technological Development (FP7). Most recently, he led Australian participation in a global study of management practice and productivity, conducted a major industry review for the Department of Innovation, Industry, Science and Research and was invited to join the Prime Minister’s Manufacturing Taskforce.

In addition, he chairs the Australian Government’s Innovative Regions Centre and CSIRO Manufacturing Sector Advisory Council, and he is a member of the Enterprise Connect Advisory Council and the Australian Research Council (ARC) Centre of Excellence for Creative Industries and Innovation.
**Professor Leigh Wood**

Leigh Wood is Associate Dean, Learning and Teaching in the Faculty of Business and Economics at Macquarie University. She has driven curriculum change for a faculty of 16,000 students and is working to enhance the student learning by providing professional and community experiences for all students. Her research is in student learning and the transition to professional work. She has published 3 textbooks, 10 multimedia teaching packages and over 100 articles. Her latest book, Becoming a Mathematician is published by Springer.

Leigh has received over $1 million in grants for Learning and Teaching. Currently, she is working on an Australian Learning and Teaching Council grant investing the capstone experience.

As Associate Dean, Leigh aims to work with the Faculty to enhance the outcome of students and to make the profession of teaching more enjoyable, effective and efficient.