Teaching-practice as a critical bridge for narrowing the research-practice gap

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Anton Kriz[a]*, Christopher Nailer[b], Karen Jansen[c], Camilo Potocnjak-Oxman[d]

ABSTRACT

Management researchers and management practitioners increasingly appear to be talking past each other. A solution lies in understanding that interactive management education has an important role to play in bridging this divide, but for some reason this mode of academic exchange is often forgotten. Our paper broadens the stakeholder value perspective to explore how and why the interests of researchers and practitioners have diverged, before going on to present illustrative cases of programs attempting to bridge such differences. Current conditions suggest that the dissonance between different cycle-times of research and practice is not sustainable with the inevitable outcome of a shrinking commons. Generating new knowledge and propagating it rapidly through education and teaching-practice is an important way of disseminating higher-order research and findings. In a world where academic relevance is under threat, enabling academics to better cross such a divide is critical. Marketing-management researchers and teachers ironically have their own challenge of taking what can be a complex theory (the marketing academic equivalent of a "sausage") and making it "sizzle".

Key words: Research, Practice, Social, Teaching, Commons, Education

1 Introduction

Marketing and management research and marketing and management practice have been acknowledged as losing touch with each other (Nenonen, Brodie, Storbacka, & Peters, 2017; Storbacka, 2014). Universities reward academics for publications while the broader industry domain questions the benefits of such narrow pursuits. Such is the frustration of research outcomes coming at the expense of impact and relevance (Storbacka, 2014) that many may be satisfied if academics did publish *and* perish. Gimmicky marketing campaigns like being in "the top 50 youngest universities" potentially alienate more discerning industry stakeholders. While challenging the value of universities internationally is not a new concern, few could deny a growing intensity around business schools having 'lost their way' (Bennis & O'Toole, 2005), with ongoing tensions around academic rigor versus professional relevance (Möller, 2017).

Management academics generating superfluous theories missing societal and professional challenges adds frustratingly to a global phenomenon of constant questioning of the value of universities. This overall relevance (or lack thereof) of universities and their business and management schools satisfies Stark's (2011, p.5) definition of a 'perplexing situation' – a 'principled disagreement about what counts.' There are several alternative conceptions of what management research versus management educators and society see as valuable (Boltanski & Thévenot, 2006). Adding to this value perplexity are anecdotes of prominent businesspeople dropping out of university. Jobs, Gates and Zuckerberg are common examples. Overlooked is that the latter two made it to Harvard, and all three were extraordinarily capable. For all the anecdotes, there are multiple counterpoints and interesting stories about the value derived from education.

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Steve Jobs made a conscious decision to save his adoptee parents the educational costs of completing his degree (a promise to his birth mother) because he could not see the real benefit. However, he still attended courses like calligraphy which he noted later as serendipitously fundamental in Apple's success.

Ray Dalio of Bridgewater fame in *Principles* (2017, p.ix) alludes to his own academic trials and tribulations: 'I'm a "dumb shit"' is how he puts it. His transformation came via a growing interest in stocks at college. Eventually he made it to Harvard and now advocates for case studies, the benefits of a prestigious alumni, and continuous learning. Jack Ma of Alibaba fame never deviated from his early passion for education. It may come as a surprise to some that Ma sat the Chinese university entrance exam multiple times before acceptance into teacher training. This revelation is matched only by the 2018 shock announcement that he intended to step down at Alibaba to return to teaching. Warren Buffet's Harvard rejection led fortuitously to an opportunity to study under Benjamin Graham at Columbia Business School. Graham's book *The Intelligent Investor* was crucial in Buffet's development with Graham going on to employ his prodigy. Academics like Graham are often under-rated, but he provides just one example of the value of effective teaching and diffusion of research. With total student debt now estimated in the US to be beyond US$1.5 trillion it is understandable why stories of dropping out resonate, with the opposite getting little attention. Bok's Law (former President of Harvard) is worth remembering: "If you think education is expensive — try ignorance."

The OECD *Education at a Glance 2018* report highlights that technological change will exacerbate the difference between higher-educated "haves and have-nots" (2018, p. 11), 'Those who have attained only upper secondary education will earn 65% as much as a tertiary graduate, on average.' The broader societal value of education turns the attention to the real focus of this paper: addressing a shrinking social-research-practice commons. We believe it's time the impact of teaching and learning (M. L. Tushman, O'Reilly, Fenollosa, Kleinbaum, & McGrath, 2007) was added even more vigorously to the debate about research *versus* practice (Storbacka, 2014). In doing so we challenge disciplines like marketing and management to start "practising what they preach". Public commentary on the marketing academy now challenges not only the research relevance but the value of the discipline more generally (Jaworski, 2011). Too often we preach accelerated change and disruption but are conservative in responding to such trends. In an age of Twitter, blogs, podcasts, sound bites and Ted talks, a "stand and deliver" andragogy no longer suffices. In discussing whether research conforms to science i.e. 'pure basic', 'user-inspired', 'tinkering' or 'pure applied' (Storbacka, 2014, p.291), we are falling into our own potential production-oriented myopia. Timely, better, and more contemporary results are what consumers want.

Many urge early career academics to publish or perish and have done since the first use of this term in *The Academic Man: A Study in the Sociology of a Profession* in 1942 (Moosa, 2018). However, the education market demands much more. Teaching, executive training, book and blog publishing may be low priorities in academia compared to peer-reviewed papers, but are effective ways for researchers to gain practitioner and societal relevance. Deeper understanding of rigor *and* relevance is key here (M. Tushman & O'Reilly, 2007; Varadarajan, 2003), as is research-related 'academic-practitioner engaged scholarship' (Van de Ven, 2018). A key proposition of this paper is that research alone overlooks an array of educative opportunities in our armoury, and that innovative teaching processes and programs can be used to help bridge the research-practice gap.

This paper outlines the causes of the shrinking commons and likely consequences of leaving this unchecked, before discussing potential solutions with reference to contemporary Australian cases. These cases outline interesting variants that tap into an educational sweet spot: *teaching-practice,* highlighting that teaching—leading to the ultimate goal of learning—is an important way of realigning stakeholder interests and strengthening the commons (Boltanski & Thévenot, 2006). Extending Tushman et al.'s (2007) intervention in executive education, we conclude that teaching-practice (whether undergraduate, post-graduate, MBA or executive level) has important intrinsic

and extrinsic value for improving *research-practice*. We suggest a-priori that our professionally related disciplines of marketing and management need to acknowledge that teaching is far from an *add-on* to a researcher's cause.

2 University and practice: descent or ascent with modification

Identifying that we are all part of life's descent with modification is something for which we can thank Charles Darwin. Existentially many of us are hoping to leave a greater legacy than descending an adaptation pathway. Academics share a privileged position where passing on knowledge and extending a legacy is possible. Potentially academics, as researchers and teachers, are therefore offered a different type of advantage: "ascent with modification". In the increasing hurly-burly of publishing, teaching and administration, it is easy to forget the academic vocation offers a chance to add to the stock of ideas. There have been few better times for sharing knowledge than the current era of digitisation, computerisation, virtual worlds and AI.

Inevitably the role of universities and academics is changing and for traditionalists not all will be to their liking. Concerns about what ought to be go beyond the scope here. However, in fields like management and marketing a truism remains: we must be relevant to our respective professions (Bennis & O'Toole, 2005). Avoiding such responsibilities (Jaworski, 2011) is not a solution as Reibstein, Day and Wind (2009, p. 3) identified in the *Journal of Marketing*, '…it is our responsibility to work on relevant problems, make a difference, and push for institutional changes.' The aphorism often misattributed to Lewin, "There is nothing more practical than good theory" (Bedeian, 2016) resonates here. Irrespective of the misattribution, Lewin was a great action researcher who truly understood the value offered by combining practice and theory. For management and marketing theory to ascend—to improve, advance and remain useful—we need to have authentic and embedded dialogue and communication between stakeholders. The last few decades have arguably seen the opposite with management education and research caught up in a rigor v. relevance debate and false premise that to 'gain more of one, we must lose some of the other, in an ongoing zero-sum game' (Gulati, 2007, p. 777).

2.1 A shrinking commons

Arguments about whether business schools should focus on pure research as opposed to writing texts and teaching are not new. Germany debated such elements in the 18th and 19th centuries, with textbooks often regarded as inferior by-products aimed at codifying and simplifying theoretical concepts (Watson, 2010). Research rigour versus practice became hotly contested in the US around the mid twentieth century (Gulati, 2007) with 'physics envy' (Tapp, 2007) finding its way into Western business schools. If business schools wanted to be taken seriously academically, it was thought that they needed to reduce practicality for more purist pursuits. The challenge of satisfying a "commons" between the need for (a) developing rigorous research, while (b) helping business and practice, but also (c) fulfilling societal needs, was emerging.

Figure 1 illustrates the ideal where social, researcher and practice stakeholders collaborate and balance interests to advance the commons. It provides an adaptation of the 'triple helix' parameters of university-industry-government put forward by Etzkowitz (2008). Social stakeholders include the work of governments that fund universities (main providers of research and tertiary education in Australia), regional communities with a stake in general economic prosperity, taxpayers and employees. Research stakeholders include all activities conducted by tertiary institutions including research and higher education. Practice stakeholders include all activities undertaken by management practitioners, namely deploying and managing assets and resources on behalf of corporate entities both large and small.

Each domain represents a complex network of actors joined by national interest: social stakeholders have a stake in how both research and practice advance social good; research has a stake in social stakeholders as subjects of inquiry and as funders of their efforts; practitioners have a stake in social stakeholders as markets (consumers), as resources (employees), as regulators (government), and as arbiters of corporate conduct (public interest). Although the commons is broader than an Industrial Marketing setting, the intersection aligns with the marketing configuration of co-creation of value (Vargo, 2008). We support Gronroos' (2011) view of *value* in the commons (improvement i.e. closer circles mean users are better off). The commons is different from firm-customer relationships and we also concur with Gronroos (2011, p.290) that 'From a value creation point of view, the fact that interactions do not include two parallel processes but one merged coordinated interactive process is key.' However, the researcher circle or sphere, like a firm, is responsible for sharing in the *creation*.

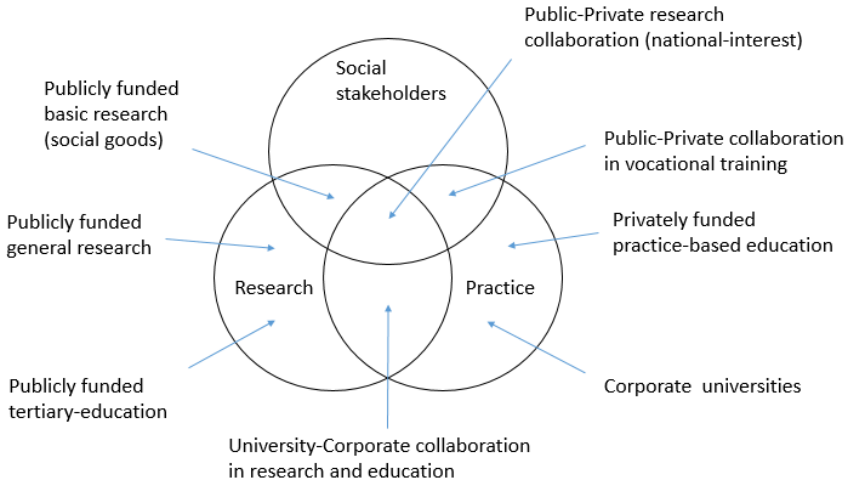

FIGURE 1 Stakeholders in a management research and education commons

A fully functioning triple or quadruple helix (with the added sphere of community) sees complementary interactions between stakeholders leading to a temporal expansion and strengthening of shared components (Kriz, Bankins, & Molloy, 2018). In management education at present, the reverse seems to be happening. Parties pursue divergent goals and the common ground is shrinking (Bartunek & Rynes, 2014; Gosling & Mintzberg, 2004). The co-creation of value between research and practice is ironically often neglected by marketing and management academics. Figure 1 implies that research incorporates teaching but instruction is often treated as a chore with academics required to trade-off between research and the business schools' lower priority of teaching (Allan, 2014; Bennis & O'Toole, 2005).

What has largely been lost in this often US dominated debate is that stakeholders are not uniform. Each country has its own unique characteristics, impacting how each country's commons operates. The embeddedness between university and industry in Germany with institutes such as Fraunhofer (Audretsch & Lehmann, 2016) has placed a greater emphasis on engagement over international university rankings. Cambridge in the UK, and MIT in the US have vibrant cultures and embedded commercial institutions built into their ecosystems. China has weathered a Cultural Revolution and reveres further education. Their commons is currently open for business to spin out of university (Kriz, Molloy, & Denness, 2013), an interesting by-product of more relaxed IP laws and fewer university-commercialisation caveats. Australia regularly ranks highly among university systems for publications ranking (10th in the 2017-18 Global Competitiveness Index) but has a woeful record for translating research into practice. In terms of university-industry collaboration in R&D, it

ranks 31st, placed below Indonesia, Tajikistan and Kenya. Therefore, in this commons discussion it is important not to see social-research-practice as an international "one-size-fits-all".

Denigration of researchers and teachers in western cultures has become a pastime, irrespective of global rankings. A teaching-only path has been tried with moderate success but is tantamount to oblivion for long-term academics (Storbacka, 2014). However, like Gulati (2007) we are hoping for a 'middle ground' avoiding trade-offs between relevance *versus* rigor and teacher *versus* researcher. Gulati discusses the academic 'boundary spanner' in helping bridge such 'tribalism'. Supporting Tushman et al.(2007) we extend this challenge to management educators who have a fundamental role in disseminating research outcomes.

Stakeholders in the commons may be surprised by the investment in *academics-as-researchers* over *academics-as-teachers*. Funding for many universities emanates from student numbers but rewarding academics for publications dominates, dependent on each university's and country's policies. Popular writer Malcolm Gladwell has been scathing of wealthy universities in the US seeking philanthropic endowments while struggling universities rely solely on public funding. Finding common ground and shared value, linking the three stakeholders (social-research-practice) in an ideal system, seems increasingly difficult. No-one seems to be winning. Signalling to job markets that you have a degree has been described as a lottery (Spence, 2002) with graduand employment failing to align with skills sought by employers. In many countries, students pay high fees for the privilege of tertiary education, so little wonder there is dissatisfaction with outcomes. This more compromised commons process, with divergent pressures drawing away from shared value (worse off and declining co-creation), is illustrated in Figure 2.

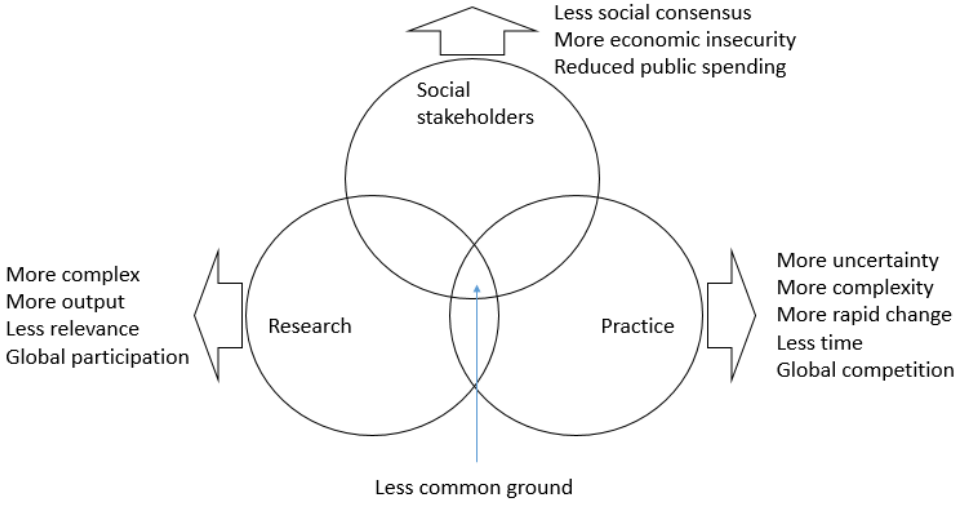

FIGURE 2 Divergent pressures shrink the commons

Social stakeholders complain that research is not relevant and that practitioners need to place more emphasis on community and social goals beyond economic ones. They face increased complexity and look to corporate practitioners to share the burden through taxation and pro-social actions, and to researchers for solutions to such wicked issues. Actually our perplexing commons dilemma does align well to criteria of a wicked problem (Alford & Head, 2017). Researchers complain that social stakeholders are not investing sufficiently in research and development; at the same time, they complain that practitioners are satisfied with quick-fix fads and ignore fundamentally sound theories. Institutions compete for global prestige and resources using their prominence in elite journals as their main quantum, with a closed community as principal audience and gatekeepers. As a result, what is produced offers diminishing relevance to social stakeholders and practitioners. For

their part, practitioners complain that social stakeholders over-regulate the domain with researchers providing theoretical answers, out of touch with contemporary exigencies.

All parties are justified in their concerns that a shock to the existing system (loss of international student funds, reductions in government support, further decline in confidence in the sector) is likely to create a tipping point with all commons stakeholders losing out. Open innovation (Huizingh, 2011) is an important concept relating to a shared commons. Supplementing organisational ideas through research and development exchanges whether outside-in (OI), inside-out (IO) or coupled (OI and IO) makes increasing sense. However, again failing to practise what they preach, universities and researchers have been slow to harness open innovation. The level of siloing within universities is embarrassing and not new. Redressing the institutional and cultural logics that have developed over decades is complex, requiring a trans-disciplinary approach. Apart from Tushman et al.'s (2007) exposé of executive education, the role of teaching seems too-often missing from such discussions. We suggest it is time to rethink the role of teaching in order to redress the shrinking commons.

2.2 Reclaiming the common ground

The research versus practice debate barely mentions education and teaching. In Brennan et al. (2014) and Storbacka (2014), the word 'education' appears only in the bibliography, in journal titles. Bartunek and Rynes (2014) only mention 'education' five times. It is interesting that researchers and educators appear to abdicate responsibility for knowledge propagation. The role of educators to "profess" has meant different things in different settings. However, when faculty members think that research and ensuing publications are the only route to passing on ideas and knowledge, then a new Dark Age may have dawned. Little wonder practitioners have largely turned their backs on higher-order, more abstract research and are only interested in skills. In a report on the future of education by Australia's peak business lobby group, the Business Council of Australia (*Future Proof: Protecting Australians through Education and Skills*, 2017), the word 'skills' appears 68 times (omitting page headers and the proper names of specific skill development programs) while the word 'research' appears only three times. Practitioners no longer believe in it. One of the authors of this study was instructed in a government project not to mention the word 'research' as it was taboo.

Practice and social stakeholders increasingly juxtapose problems in the research domain with poor teaching quality and outcomes. Teaching has its own perceived failings, exacerbated by growing expectations of universities as vocational training centres. The authors of this paper have no bias against deriving *knowledge-through-theory.* Basic theory has value and some concepts, even in business, can be derived through more abstract pursuits. Calls for utilising the abductive paradigm offer some form of middle ground (Brodie, Nenonen, Peters, & Storbacka, 2017; Dubois & Gadde, 2014). Proponents of even more participatory academic intervention include Kurt Lewin, Reg Revans (action learning) and more recently Evert Gummesson (relationship marketing). Gummesson's standing in marketing theory and advocacy of techniques such as action research has been critical in advocating a greater nexus between practice, research and teaching (Gummesson, 2014). He understands that methodologies bringing researchers closer to marketing experience better reflect operational "truth". Falsifying social or business-related phenomena is at best transitory with the likes of Popper acknowledging that social sciences are human-centred with people-related systems dynamic and constantly changing (Teece, 2009).

Flyvbjerg (2001) explains the difference between the theoretical researcher and expert practitioner, articulating the role of technical skills. Flyvbjerg draws on the Dreyfus model (2004) of skills

development incorporating: (1) novice (programmed in basic tasks and operational rules); (2) advance beginner (understands context specific operations needed to function adequately); (3) competent performer (programmed in varying situational aspects but simplifies complexity to function most effectively); (4) proficient performer (tackles more advanced positive and negative situational challenges but still growing in competency); and (5) expert (advanced understanding and can sense, seize and adjust at a skilled level). One could argue that *master* be added as a sixth level, where experts take on a sage-like capacity to train others, such as Master Black Belts in Six Sigma. Flyvbjerg (2001) argues that this mastery of knowledge in academic and professional pursuits requires practical wisdom. The late polymath Peter Drucker is an example of more practical wisdom, rarely relying on logical empiricism. As a counterpoint and rare exception, Schumpeter created theoretical accuracy by embedding himself in extant and historical literature. However, it could be argued that his underperformance as Finance Minister was in part due to his lack of exposure to practice. David Teece, Kathleen Eisenhardt and others have made the combination of good theory and good practice part of their forte, and are exemplars for others to follow.

Reclaiming the research centre in Figure 1 requires researchers and practitioners to agree on a 'composite object' or shared goal that unites interests and acts as a bridge (Boltanski & Thévenot, 2006). Education and teaching provide a logic in the context of management research and practice that could help find such common ground. Bennis and O'Toole asserted that academics have given up important elements: 'Businesspeople are starting to sense that individuals in the academy are not engaged in the same profession they practice' (2005, p.6). Management education and its knowledge-creating interactions, like Van de Ven's (2018) engaged research scholar, can enable innovative business strategies and sometimes even generate breakthrough theories. Social stakeholders probably suspect that there is an opportunity to rekindle such value (a win-win-win) but getting institutions to change takes time and requires a rethinking of policies and incentives.

2.3 A role for the academic synthesiser and communicator

Academics, whether researchers and/or teachers, have always had an important knowledge diffusion and exchange role. Defining what makes a great teacher versus researcher is beyond the scope of the current article, but it is recognised that some individuals are quality teachers while others have strength in research and publications. Some institutions like London Business School and Harvard value both. Ask a past or present marketing student to identify a prominent academic and Philip Kotler is commonly nominated. Kotler influenced marketing theory and practice through teaching and effective text-book communication. Undervalued by most academic peers is his impact on transferring complex marketing concepts to the masses. The best texts and academic manuscripts are often derived from a synthesis of higher-order research. Kotler will no doubt be remembered long after most theorists have been forgotten and is an example of an educator capable of extracting theory that he made useful and more practical. E.O. Wilson (1998) in *Consilience* suggested the 21st century would be focused on those who can synthesise. Kotler managed this incredibly well (over 315,000 citations on Google Scholar).

Drucker, as the father of management, was similar. His McKinsey Award at the age of 95 for the best article published in *Harvard Business Review* in 2004, was exceptional. Explaining complex theory effectively and simply to students and managers is underrated. It's why journals like HBR and California Management Review focus increasingly on communication of ideas over complex empiricism. But teaching is currently experiencing rapid change with MOOCs, online and blended learning. Vyakarnan and Hartman (2011, p.2) identified: 'We also ring an alarm bell for educators. Media…and private sector web-based organisations are gaining rapid influence by creating programmes and content that inform and inspire. It will not take long before these forms of media

are able to replace what is currently offered by educators.' Some of our more applied universities are now taking up this challenge with executive training direct to the workplace. Single-loop learning (understanding the "what"), double-loop learning (understanding the "how") and importantly sharing and transferring triple-loop learning (going to the core of "why") (Tosey, Visser, & Saunders, 2012) is possible in such contexts.

3 Educational management and marketing cases that are up close and personal

The four co-authors of this paper are researchers and educators. Like their colleagues in management and business, they are mindful of KPIs that are prevalent in the university domain and within business and management. All four have taught at undergraduate and post-graduate levels at the Australian National University (ANU), have been practitioners, consult to industry, are keen to see students succeed and are academically and vocationally driven. Their specialty areas include marketing, entrepreneurship, innovation, leadership and change management. Located in the Australian capital Canberra, ANU is part of a Group of Eight (Go8) leading Australian universities.

The four cases illustrated below (Cases A to D) are built around the combined authors' educational teaching and training praxis. Praxis is an apt description (Brodie et al., 2017) as it emanates from the Greek for a theory or lesson being enacted and reflects that the cases are direct lessons from academics engaging in their field. Most of the cases remain operational with continuous adjustments, refinements and recalibrations. Student evaluation, peer reviews and feedback from practice and social domains inform improvements. Cases A to D represent multiple offerings from undergraduate through to executive and industry educational programs and training. One of the most important attributes of the ANU management school teaching approach is the introduction of evidence-based management (EBM) which puts emphasis on problem/solutions from multiple perspectives including scientific literature, organisations, stakeholders and practitioners. EBM (Dietz et al., 2014) acknowledges that better business decisions require accurate data, facts and triangulation. Such material can be derived from secondary sources, surveys, qualitative material, cases and/or business operations. Ultimately EBM relies on a combination of theory and practice—with Kahneman's (2011) Systems 2 or more reflective thinking (as opposed to Systems 1, more automatic thinking)—illustrative of this approach (Thaler & Sunstein, 2008).

The four cases described are customised to the ANU management school philosophy but are illustrative of initiatives offered by a range of Australian universities in programs encouraging more work integrated learning (WIL). The cases are supported by peer reviews and student feedback but for the purposes of this article the material is built on the diaries, memos, observations and reflective discussions of the academics involved (Kriz et al., 2018). Two of the authors have developed programs applying action learning and action research for more participatory approaches with Cases B, C and D offering examples closer to Tushman et al.'s (2007) executive and industry training workshops. This latter case has been subject to participant entry and exit surveys with some of the findings published in *R&D Management*.

3.1. Case A - Going live with problem-based learning

Since 2003, ANU post-graduate management programs have required final-year students to complete, as a capstone project, a live consultancy brief for a local company, focused on an innovative growth development. By 2018, one author had mentored 83 of these projects for 62 local client organisations. The strategy challenges are posed as unstructured, complex problems requiring participants to deploy and adapt multiple frameworks learned across their management program. The projects have yielded rich research insights into the growth strategies of local companies across

multiple industries as well as accelerating their development in practice by embedding novel strategic frameworks into the local business ecosystem.

Another problem-based interactive example is ANU's global marketing course which incorporates an International Business Plan Competition (IBPC). This brings together business, industry and government partners to create export-ready outcomes for local companies (approximately 7 to 10 partnerships per annum). Student teams develop global marketing plans for the respective companies with each finalist pitching their outcomes to an expert panel of industry practitioners. Companies benefit from well-developed internationalisation plans, students gain real-world insights and faculty members gain access to in situ business activity and research data. The program has two offerings: one at undergraduate and one at post graduate level. The recruitment of companies is undertaken in close collaboration with industry and government stakeholders and the program has been responsible for multiple international export successes. An induction of companies into international marketing theory and process kick-starts the IBPC, conveying expectations and providing recruited SMEs with a snapshot of relevant theory. Tools and modules have been developed to assist students in quickly understanding and applying theory to the live businesses, with standout students selected by the SMEs to enter internships.

ANU's College of Business and Economics (CBE) operates a growing and extensive internship program with approximately 70 undergraduate and postgraduate students working in businesses each semester. Two of the authors of this paper provide academic supervision, ensuring students apply suitable theoretical elements to their experience. Projects are research related and monitored by academic supervisors for adequate rigour. Successful interns are frequently hired by companies. This internship program now supports international students in acquiring positions in their home market. Internships are an important way of assimilating and disseminating research concepts into the field, and are increasingly common in university settings.

In 2008, the ANU launched InnovationACT, a network-based program encouraging students, staff, academics and industry mentors to collaborate in local venture initiatives. The program has gradually expanded to include other educational institutions in Canberra. Over the past four years, the program has awarded over AUD$200,000 in seed funding and other resources. In 2017, InnovationACT's online platform was viewed over 30,000 times and a record thirty teams completed the program which includes a series of practice-oriented workshops based on the ANU's research into new venture processes (Potocnjak-Oxman, 2018).

In 2014, the ACT Government launched the Canberra Innovation Network (CBRIN) to further consolidate collaborations between local government, innovators and education and research institutions. InnovationACT has built strong ties to CBRIN, the Griffin Accelerator which supports local high-growth firms, and the federal intellectual property agency—IP Australia—linking social, research and practice stakeholders (Potocnjak-Oxman, 2018). ANU's College of Business and Economics has now also launched a Venture Lab for further integration of entrepreneurial ventures created by students, including the promotion of joint innovation efforts. Student-centred activities linked to design thinking are central to this initiative. The start-up entrepreneurial portfolio is managed and developed by one of the co-authors who is currently undertaking research into entrepreneurial opportunities and design.

3.2 Case B - Research-practitioners as program co-creators

Two authors have delivered an executive education offering at the ANU in partnership with a professional association of transformational change practitioners. This program combines academic theory, EBM, and practical expertise in transformational change. The project-based course builds

on action-learning approaches to accelerated executive learning (Tichy, Brimm, Charan, & Takeuchi, 1992). The intention from the outset was to use the educational context to go beyond current theory and practice to co-create new knowledge applicable to both domains.

The course is organized around three face-to-face modules of four days each, with a final module of two days, delivered over a nine-month period, with time between modules for application and practice. The first module entitled 'Understanding' introduces participants to the current state of research into transformational change. Two external program sponsors pose wicked transformational challenges, on which participants work as members of a team, for the entire program. The second module, 'Activation', presents theoretical lenses for interpreting the wicked challenges and focuses on scoping the project work. Module 3, 'Implementing and Adjusting', deepens participants' understanding of transformational change by drawing upon insights of transformational leader-practitioners. Dialectic debate through Modules 1 and 2 surfaces conflicting cognitive frames between research and practice. In Module 3, intensifying deadline pressure exposes participants to their assumptions and blind spots, which brings frustrations into the open as they grapple with tensions between theory and practice. As the date for delivery looms, pressure to articulate a strategy resolves the tension into synthesis. Module 4 concludes the program with presentation of findings to sponsors and a broader audience of practitioners, and sharing of team and individual reflections.

Along the way, the ANU and executive-based teams experience their own version of a "pressure-cooker" challenge. What seems clear and straightforward at the outset creates unexpected tensions, taking learning in new directions. A shared goal is to collaborate on a common educational platform to co-create knowledge and tools to benefit both research and practice through transformational change. Although there is general agreement on overall goals, strategies for achieving these vary significantly between teachers (who prioritise theory and learning assuming that practitioners find theory valuable) and practitioner students (who emphasise tools and solutions, believing academics are unaware of current practice and unable to respond quickly enough to emerging opportunities). Much time is therefore spent building a common language.

The most useful tools are theoretically based but practically useful. For example, causal loop diagrams based upon systems theory are an abstract, yet applicable lens for understanding complex dynamics associated with transformational change; an EBM framework provides a practical context for methodological rigour in data gathering, critical appraisal and reflection. Participants learn transformational skills while academics find new ways to explain value propositions.

A new MBA program has also been launched at ANU with one of the authors responsible for developing an Entrepreneurship and Innovation course for this program. An important component of the program is the inclusion of weekly readings of key journal articles on boundary spanning, innovation champions, ambidexterity, opportunity recognition and bricolage. The major assignment is the development of an innovation plan and strategy for implementation in each MBA student's business or government department. Many of the executive participants acknowledge that they are implementing the innovation plans in their workplace. Course objectives are adjusted in early weeks, depending on the skill, knowledge and learning needs of the cohort to ensure students gain significant practical and theoretical benefits.

3.3 Case C - Internationalising programs with co-creation across business schools

Two of the authors have been key contributors to a Master of Management (MoM), a jointly accredited program taught in Mandarin at Tsinghua University in Beijing, currently in its 15th year. The authors have taught approximately 60 students per cohort in the final course, New Venture

Creation. Participants are senior executives and leaders from various provinces across China. The course focuses on business model and business plan development for new ventures, including potential spinouts and spinoffs. A recent addition to the program has been the incorporation of tools for applying innovation championing to enterprises. The MoM has witnessed many changes in China with enrolling participants now often already successful independent entrepreneurs. In earlier cohorts, most participants came from government or State Owned Enterprises (SOEs). Increasingly, students in the program are creating ventures pitched at service opportunities and social innovations.

The New Venture Creation course has provided important innovation skills and encouraged student teams to create and kick-start real ventures built around team capabilities, analysis of combined resources and clarification of a feasible opportunity. A number of these new ventures have successfully transitioned from the classroom to commercial reality. A key aim is to equip all students with a theoretical and practical capacity to kick-start a venture but there are important additional objectives. Advancing understanding of teamwork, applying knowledge gained from the suite of earlier management courses, and sharing vignettes of existing Chinese entrepreneurs (including those in the class) are other elements of the course.

The opportunity for Australian academics to immerse themselves in Beijing with executives from an array of China's leading businesses, including consulting, finance and government enterprises, has obvious two-way benefits. Beijing's Zhongguancun district, where Tsinghua is located, is renowned as China's Silicon Valley and is a key centre for enterprise growth and innovation. Tsinghua was recently ranked 16th on the QS rankings (2019) which places it at the very top in Asia. Tsinghua cohorts now visit Australia both prior to commencing the MoM and at its completion, and academics have utilised these opportunities to introduce students to Canberra businesses to advance first-hand understanding of Australian businesses and policy environments.

3.4 Case D - Societal programs that assist place-based co-construction

One of the authors has had the opportunity to incorporate theory in educational training in regional research and practitioner interventions. These stemmed from a range of quadruple helix research undertakings mostly supported by grants from industry and policy stakeholders. The author has been responsible for several place-based interventions at enterprise, cluster and regional levels and has trained and supported two significant clusters in New South Wales (NSW): Hunternet (170 businesses as cooperative members) and Central Coast Industry Connect (a 200 plus database). Activities with these member bodies have led to training and leadership initiatives, for example the development and implementation of training programs for China, Japan and Korea as part of the development of Australia's recent Free Trade Agreements.

Additional work by this author with place-based initiatives has extended to federal government grants and initiatives. These opportunities have led to benefits like the development of an Innovation Champions Program (with over 30 participants, approximately 10 per session) and two follow-up regional innovation management (RIM) training programs (North East and North West Tasmania). The latter were supported by Skills Tasmania with several findings showcased at peak academic/industry international conferences. The author supports one of these international conferences with wicked problem training programs (specific for each conference destination) and action research/learning skills. The wicked problem sessions attract over 40 participants (policy, practitioners, academics), with action research/learning sessions limited to approximately 12 participants (practitioners and researchers).

The success of the abovementioned quadruple-helix inspired endeavours has led to closer university-industry-government-community linkages. These interventions also have international implications, extending to markets like Germany. The Australian-German initiatives are aimed at advancing regional development and business growth in Australia. A trial program is underway in Bendigo, Victoria, with training modelled on successful domestic RIM approaches and regional transition lessons from Fraunhofer Institute in the Kaiserslautern district of Germany. The Bendigo-Fraunhofer program aims to link business, academics, students and communities in what could be described as a potential international cluster of innovation (Engel, 2015). Workshops incorporating industry, policy and regional stakeholders were conducted in 2018 as part of this initiative.

Another project that sees a much deeper exchange between educators and the business environment is an action learning intervention on the Central Coast, NSW. Nine companies were involved in an endeavour to improve industry outcomes by upskilling participants, building family business leadership skills and helping small businesses unlock growth opportunities. The author's role was to develop and facilitate the program which is an example of Van de Ven's (2018) engaged scholarship. However, these programs go beyond researchers crossing the rigor and relevance divide, acknowledging that engaged scholarship is possible through educative initiatives. The latter cases suggest that academic boundary spanners are becoming harder to distinguish from practitioners. However, it is important to highlight that the authors have always been keen to keep their theoretical toolkits close-at-hand.

4 Encouraging a co-created common ground

These illustrative cases provide narratives of academics crossing the threshold between research and practice: success relies on academics' business, research and practitioner strengths, combined with advanced educational and facilitation capacity. Common to the first three cases (A, B and C) are the following four characteristics that appear necessary to increase the common ground.

1. Each case uses overarching educational goals and processes to integrate mindsets, interests and approaches of social, research and practice stakeholders, bridging and advancing understanding across the three domains and delivering valuable outcomes to each. In so doing, a common basis for value is established (Stark, 2011).
2. Relevant processes are multidirectional. They do more than apply established theoretical frameworks derived from management research into the social and practice domains; they integrate the value of practitioners' and social stakeholders' experiences as contributors to new knowledge. In doing so, they stimulate researchers and students to generate unique adaptations of theory that stretch beyond established foundations, reframing them into unique client-specific outcomes. In the process, they also challenge social and practice stakeholders to engage with theory in hands-on interactions that deepen their portfolio of mental models.
3. They require a core team of research-practitioners willing to experiment across the three domains (Posner, 2009). This is often at personal cost to individual careers because efforts devoted to the goals of 'other' domains, or leading initiatives that bridge domains, attracts little career recognition. But as the value of shared outcomes becomes more visible, bridging these domains is recognised as a solution to the individual pressures each domain faces, rather than as a competing resource demand. Engagement is increasingly regarded as a key process for reigniting relevance, for generating research funds, and for enhancing graduate employability.
4. Multidirectional interactions in management education experiments generate knowledge that propagates and extends new insights beyond direct participants to other domain

members through network interactions during and after programs. The experience of business innovation (Von Hippel, 2005) suggests that researchers who expose their emerging theories to early testing in an educational context will generate more novel and robust theories faster than those who try perfecting their work in research silos.

Over time, these illustrative experiments help catalyse the development of additional change agents across domains in a minor social movement that gradually influences others to shape common ground.

Case D is a good example of more extreme testing of theory within the regional field. This has considerable benefits for both educator(s) and beneficiaries and is important in countering the divide between university, business and society. Case D has initiated multiple research spinoffs and has significantly influenced regional outcomes. Practitioners have participated in such programs as have government field workers, helping diffuse benefits of these interventions more broadly. Regions targeted through the interventions have often underperformed in educational achievement, with many participants gaining exposure to higher levels of education for the first time.

Cases B and C have similarly high impacts albeit all lessons are conducted within a more contained educational environment. Case A targets undergraduate students transitioning into industry. Theory passed on to them has immediate impacts and longer-term diffusion advantages when theories are incorporated by employing businesses. Graduands who have learned to adapt theories and create unique client-specific frameworks rapidly create networks of advocates across surrounding business ecosystems. Research-practice experiments in management education are thus a highly effective means of disseminating new knowledge more rapidly than via the conventional means of academic publication.

4.1 Identifying the educational value of each stakeholder offering

Table 1 provides a synthesis and cross-case analysis and lists benefits of these educational interactions. The table reconfigures cases to align educational gain with the level of offering: undergraduates (2nd and 3rd year), postgraduate (minimal work experience), MBA (prior extensive work experience), executive leadership (CEOs), Chinese MoM (executive level), and regional industry training workshops (extensive regional business and industry stakeholder expertise). The table outlines social, practice and research gains from educational interactions, with the final column focused on the shared commons and benefits of academics engaging deeply with external stakeholders.

Domain / **Program type**	**Social gain**	**Practice gain**	**Research gain**	**Education gain**
Undergraduate	-Increase in social awareness of graduand benefits - Increased internships into various networks including not-for-profits -Adds considerably to successful stock of start-ups	-Improved business performance and export plans -Opportunities to mentor and train -Stimulus of economic activity through new and creative ideas -Interns expose industry to benefits of quality research projects	-Dissemination of research ideas to students and businesses -Experience of enacting theories in the workplace -Identification of potential higher degree research students	-Maintain currency of skills needed to service operational businesses - Identify gaps between practice needs and what is being taught - Inform management colleagues about educational currency
Postgraduate	-Australian and international links	-Exposure to international ideas	-Dissemination of theory	-Understand more fully cross-cultural nuances

	- Broadening of intercultural understanding -Funding source for universities -Accelerating development by embedding frameworks into local business ecosystem	-Stimulus of economic activity through new and creative ideas -Links to international markets -Well-developed internationalisation plans -Businesses can trial interns prior to employment	-Research opportunities in new markets -Research insights into growth strategies of local companies across multiple industries	and benefits of engaging internationals with stakeholders - Breeds goodwill and engagement among international partners with marketing and management schools
MBA	-Community advocacy of value of education -Disseminates new knowledge to community	-Application of new techniques and knowledge -Improvement in quality of training and mentorship through experience of train-the-trainer -Advances leadership and management literacy and practice	-Testing of co-created new knowledge -Networks foster collaboration and open innovation -Inspires "why" questions and triple loop challenges	-Informs educators more directly about participant and agency needs -Keeps programs in touch with needs of aspiring executives -Sharpens programs and teaching styles to higher-order needs
Chinese MoM	-Links Australia with China -Opens options for China community engagement -Exposes Chinese to Australian opportunities	-Advances Chinese business practices -Encourages international partnerships -Increases creativity and innovation -New venture creation -Encourages teamwork	-Opportunities for cross-cultural research -Potential funding sources for research -Access to business settings in China, including China's Silicon Valley	-Advances skills in different styles of behaviours -Opens cultures to varying educational practices, norms and thinking styles -Keeps marketing and management programs up-to-date with international business activity and cases
Executive Leadership	-Advances leadership quality - Advocacy for lifelong learning -Positive influences on key decision makers	-Improved financial returns and leadership skills -Increased ability to manage rapid change -Immersion in EBM -Complex problem solving through "wicked" methods	-Access to research in top companies -Alumni networks - On-going research grant opportunities -Increases currency in research and contributions	-Immediate feedback mechanism for educators to industry leaders -Keeps educators savvy with higher-order needs of top management teams -Adds executive insights to management and marketing schools
Regional Industry Training	-Broaden community exposure to education -Adds value to regional systems and clusters -Lifts quality of regional thinking	-Increased enterprise and regional value -Growth for individual enterprises -Experience of action learning to improve business outcomes -Familiarisation with new frameworks	-Opportunities for action research -Improved likelihood of successful Linkage and ARC partnership grants -Opportunity to test current theory in practice	-Ensures needs of regions inform educators, management and marketing schools and universities -Builds two-way links and bonds across respective domains

TABLE 1 Gains from educational interaction for various stakeholders

4.2 Understanding education's contribution to the commons

The illustrative cases and educational praxis identify that co-creating new knowledge with practitioners can result in significant achievements. The contribution that each program type can

make to the domains of the commons varies, consequently instruction and teaching processes need to reflect these variations. The needs of participants in an MBA class, and the commensurate value for the commons, are different to an undergraduate program. When training industry partners or international postgraduate students, the context is different again. The benefit for the commons is often through "osmosis" which also encourages co-creation and a "drip-feed" of new knowledge through *learning by doing* and *action-based* interactions. This is not limited to executive training but can be facilitated across all domains as the examples within Case A highlight.

This paper asserts that *teaching* is an important bridge between research and practice, with benefits across all domains within the commons. As outlined in the Introduction, the more we isolate management researchers toward publishing, and either-or pursuits around rigor and away from social phenomena, the more we threaten the relevance and quality of what management and marketing schools produce. Knowledge is most effectively created through the continuous interaction of ideas, theories, schemas and empirical data in a continual dialogue, not only among researchers but also through engagement with others in the social, communal and corporate domains where human capital interacts. Exclusivity of the peer-review audience toward higher-ranked research publications makes research increasingly inward-looking and inaccessible. For those in business practice, prior experience, rules-of-thumb and intuition provide poor guidance for addressing uncertainty and wicked-style problems. Linking theories to practice through educational exchanges, as detailed in the cases and summarised in Table 1, is a mutually beneficial pathway for management and marketing.

Figure 3 identifies the gains attributed to education and teaching becoming more aligned to others. The education *sweet-spot* derived from the discussion is where we expect research and practice to increasingly intersect. The calls by Storbacka for more abductive studies and Van de Ven for engaged scholarship are platforms for increased researcher-derived relevance. However, similar to Tushman et al. (2007), we believe that the scope for educators to make a difference is understudied and forgotten. Figure 3 highlights an important implication for research arms of business schools. To remain relevant to practice and social stakeholders it will be beneficial to offer significantly increased value through effective teaching programs. Table 1 highlighted benefits of more applied teaching to both practice and social stakeholders. Direct benefits ensue through theory being disseminated in ways respective users *can* and *want* to learn. Educators and their institutions should not be limited by student evaluations to be bold in such pursuits; they have an important role in leading the commons as theoretical experts. Applied, relevant, purposeful, action-oriented learning, undertaken in a variety of ways (formal learning for executives and MBAs, internships, Masters level studies, problem-based learning, industry-based competitions) is a clear way to achieve this. Increasing the understanding of social stakeholders will mean better outcomes and less resistance as depicted in Figure 3.

One caveat in the process is the quality of the teacher. While beyond the scope of this paper, it must be recognised that not all researchers are capable of this type of instruction. Drucker highlighted the importance of playing to strengths. Inappropriately pushing researchers beyond their specialisation into training and facilitation roles may not result in ideal outcomes. However, there are ample educators and practitioners with skills to fill the sweet-spot void. Professors of Practice are one avenue, but universities and faculties should also look for additional boundary spanners and to team academics with practitioners to further bridge domains and diffuse the research benefits of the commons. As Tushman et. al. indicated and we have further developed, the domains of the commons can only come closer if genuine efforts to change behaviours are taken beyond rhetoric to real incentives and actions. Rewarding academics for successful strategies around WIL needs to be matched in workload adjustments and additional rewards. *Practise, publish* and *prosper* sounds better than the current *publish or perish* mantra.

FIGURE 3 Co-creating value through teaching and education: growing the commons

5.0 Discussion

All three domains (research, practice and social) need to reinvigorate their commitment to the pursuit of understanding, recognising that the complexity of the commons has taken us well beyond the capacity of any one domain to achieve its goals without interaction with others. Figure 3 identifies that education provides one bridge to effective interaction. However, multiple perspectives have moved the platform beyond taming such dilemmas with simplistic binary solutions. Incentives and rewards in all three domains mean interactions without guarantee of immediate, measurable benefits. Young career academics are under increasing scrutiny to perform well on student evaluations even though teaching is often an order qualifier, not an order winner (publications). These younger academics increasingly game the teaching system and avoid risk with a "tick" on their education-related tenure evaluations. This only exacerbates distrust of students and stakeholders. We cannot predict which experiments will lead to which outcomes (Rice, O'Connor, & Pierantozzi, 2008) but our cases show that there are plenty of opportunities and plenty *do* work.

5.1 Theoretical and case implications

The message of this paper is clear: we cannot continue to overlook the role of *teaching* in strengthening relevance and building connections between research and practice. The authors are cautious in using the term pracademic. If this implies a boundary spanner gifted in both *practice* and *academia* then we are supportive, knowing that improved translation across our stakeholder groups is critical (Kuhn, 2002). We have identified that one-size-does-not-fit-all and have offered a range of examples where early and mid-career researchers can fine-tune their educative abilities. Like researchers in search of better methods to bring them closer to practice, teaching and learning need similar strategies. However, instruction through practice alone is insufficient, and EBM and rigor must be maintained. We suggest that well-designed action research and action learning are effective but currently underutilised ways of co-creating new knowledge within practical environments. Embedded field-work teaching has merit in leading to win-win-win outcomes. Cases B and D are representative of typologies where academics not only fine-tune their craft but gain immediate and critical feedback from the market. Sometimes the response can be blunt but that is what reflective inquiry is all about. Fortunately, as the authors of this paper and their ANU colleagues in design science research (DSR) are showing, action-based studies *can* be published.

The commons could draw insights from the Industrial Marketing and Purchasing Group's actors-activities-resources model (AAR) in terms of delving more deeply into how bonds, ties and links (Håkansson & Snehota, 1989) are stimulated across our three domains. The approach outlined in this paper correlates with a more applied philosophy of improving education/research processes in the broader social sciences (Flyvbjerg, 2001). The five stages in Dreyfus' model of skills

development of *novice*, *advanced beginner*, *competent performer*, *proficient performer*, and *expert* is important. How many proficient performers or true experts have we got in the disciplines of business? Senior academics never practising their trade in pursuit of purist academic pathways, are not likely to pass the test.

Turning to our graduands, the best skill level we can probably hope for is a novice with some reaching advanced beginners. This is reliant on practice-based exposure, and if we deprive our students of such opportunities, we have not given them much chance of attaining applied skills readiness. This is an important gap that practice and social stakeholders are asking us to fill (Jaworski, 2011). MBAs and executives are calling for a different type of training. They increasingly want something that adds to their unique value and individual brand. This means complementing industry experience and helping them advance to *proficient performers* or *experts*. Cases B and C illustrate these aspirations. Even a *competent performing* academic would struggle at this level. Micro-credentials and advances that support a growth mindset (Dweck, 2017) are increasingly fundamental at such levels, as are the benefits of sharing experiences with peers and expert lecturers. Only those with equivalent understanding of "real world" practices are likely to be able to teach in such environments. University settings not willing to invest in such innovations are likely to become increasingly redundant. The benefits of getting closer to practice and social partners cannot be underestimated but whatever tools we use as academics, it is important that we draw from quality evidence to make decisions. However, if we stand still it will only be a matter of time before the market and burgeoning industry competitors leave us behind.

Susskind (2013) in his *Confessions of a Pracademic* investigates in conceptual detail the Theory of Engagement, starting with a practical or perceived problem, followed by analysis then conceptualisation. Such spirals of inquiry focus on a deeper understanding, new knowledge and ultimately improved outcomes. Much of the criticism of theory development in marketing and management is about providing post priori results, informing practitioners of what they already know. As our praxis cases identify, this can be overcome when stakeholders are more intertwined and co-creating together. Susskind is proud of his engagement process that he suggests outsmarts the academic system. This starts with documenting issues before theory building, which is then followed like many of our examples, with exchange through teaching, training and active educational partnerships. Our regional industry training approach (Case D) is closest to gaining direct societal and industry-wide impacts. While currently an exception for universities, such approaches are slowly becoming more popular. Swinburne University of Technology in Australia with their approach to Industry 4.0 and partners like Siemens follow this style of engaged WIL interactivity. FIRenze SmarT (FIRST) Working Lab is a European attempt trying similarly to bridge the teaching-practice gap. Incentivising professors to champion industry projects for students sounds easy, but is difficult when schools do not seriously acknowledge the individual academic's publishing trade-off and resource outlay.

Unlike business innovation, where there is a 'fuzzy front-end' (Koen et al., 2001), experiments in management education seem to have a 'fuzzy middle'. The 'fuzzy middle' makes direct measures of cause-effect relations between programs and outcome inconclusive. For example, entrepreneurship education programs often measure the number of new ventures *launched* by participants yet in our experience few of the ventures designed in undergraduate entrepreneurship programs move beyond prototyping. Nevertheless, anecdotally, the same individuals who met, interacted, and learned together, are occasionally discovered two or three years later still connected and launching completely different ventures. Skills development, as in the Dreyfus model, do take time to perfect with good doses of experiential learning critical for graduand development. We agree with Revans (2011) that a blend of 'programmed learning' and dose of real 'action' is important for growing into a profession. Novice students are not totally dissimilar to entrepreneurial start-ups with wide and varied skills that effectuate before they narrow their capability and

competences. This is different to the modern more causal MBA student (more competent and proficient), who is more like the incumbent firm trying to reconfigure resources, perfect their craft, and exploit new opportunities.

The experienced executives in Cases B and C were increasingly wanting more than simply business smarts as they pursue high-order expertise and a rare combination of practical and theoretical wisdom. Our executives are increasingly striving for currency and are conscious of the up-and-comers with their "newly acquired" MBAs. Success in our digital AI world is likely to be built around continuous learning and constant program improvement. We need better measures of the longer-term impacts of educational experiments when outcomes are mediated by indeterminate 'fuzzy middle' processes. A key aspect of this study is promoting education as a fillip for reversing what Storbacka (2014) and others see as a continual research relevance decline in the commons. Narrowing the gap between those that teach and/or those that research should be high on the agenda of university administrators. The *sweet spot* for a win-win-win scenario has potential to extrapolate the co-created value harvestable from engaged scholarship that combines not only Van de Ven's better research-practice but emphasises teaching-practice as well.

5.2 Practical implications

Several practical implications stem from this research. Firstly, a person with a PhD with extensive real-world business expertise is a rare find in Australia yet this research identifies that such boundary-spanning academics are critically important in helping overcome the current divide between practice and research and a shrinking commons. We should start with PhDs as they enter the field, and train them in the science of teaching and communicating and not simply the science of research. Pracademics crossing these boundaries are ideal but we need to be careful that we don't lose research credibility in such a process. *Practise, publish and prosper* has merit and for marketing and management academics this means communicating theory more effectively while simultaneously investigating practical and management benefits. Marketing and management are not alone here but it is ironic that we don't *practise* our communication skills as well as we *preach* them in theory. Osterwalder and his co-designers (*Business Model Generation* and *Value Proposition Design*) are typical of a new breed of consultants turning academic tools upside-down. Like Eric Ries, this popularist new breed is simplifying complex theoretical phenomena and making it more user-friendly (Frederiksen & Brem, 2017). Their refinements are now commonly seen in the curricula. It may be time to reconsider reward structures for academics and, as indicated by Etzkowitz (2008), appoint more industry-capable academics committed to mentoring researchers and teachers. An academic balanced scorecard and workload model that properly rewards research, teaching and practice would be a great start. This stream should not simply support Professors of Practice but also Lecturers of Practice and Associate Professors of Practice.

A second practical implication is to carefully design programs around a strong theoretical base, cognisant of industry and practical elements. The programs discussed in our cases were offered at later undergraduate years or pitched at postgraduates, executives and external regional stakeholders. The practice elements of these courses are built around students having multidisciplinary and comprehensive theoretical foundations. The transfer of higher-order theory occurred as a result of these foundations not despite them, with EBM and rigor still central. This study has only touched upon opportunities for universities and a limited array of options. There is a suite of possibilities where educators can work with practitioners for similar benefit without falling into the potential trap of becoming vocational providers.

More can and needs to be done to reduce the dissonance and to build a shared overarching logic for valuing management research and practice that delivers benefits to all stakeholders. Globally we must recognise the value of tertiary institutions. Some countries are better than others with China respecting with reverence the role of professor or teacher. It is important that the current dialogue changes and policy supports the virtues of on-going learning. Industry shares in this responsibility. Where wins occur, these should be celebrated and publicly acknowledged to build positive momentum. Australia is poorly performing on translating an excellent per capita patent and publication performance into commercial outcomes. Australia has therefore had to recently introduce a national policy to lift engagement and impact. Europe and the UK are designing similar policies. Significant funds are now being allocated at the national top-down level to incentivise universities to pull change through the system. This is an interesting 'nudge' to a national system. Internationally this could be supported by global and business school rankings that account for the number of PhDs, and additionally reward universities with PhDs possessing and nurturing strong practice capability.

We mentioned earlier that the commons aligned well to a wicked problem or challenge. These multiple stakeholder societal problems are messy, intractable, confusing and incorporate countervailing opinions (Alford & Head, 2017). Taming such challenges requires transformational insight and ultimately *wicked innovation*. Changing top-down national and international systems is complicated. The *AMS Review* has added a more robust *theory* and *practice* section which is one example of changing international efforts. Many of the more effective recommendations are likely to be tactical and bottom-up; i.e. at your own business school, faculty and university level. A simple start for each business school, at the regional commons and quadruple helix level, is more effective engagement with industry, government and community. Some do this well, but most don't. The IMP AAR model combines well with regional innovation systems models (Tödtling & Trippl, 2005) as a way of mapping and understanding each local helix and commons stakeholders. Key stakeholders can then be selected as part of an advisory board to help set KPIs and monitor a new academic balanced scorecard.

The advisory board should measure aspects like the number of interns and the number of courses where WIL is operational and effective. Rewards for practice around educational program and impact need to at least match workload rewards for publishing. Advisory boards should incorporate alumni and executives that have been involved in educational programs. Monitoring skill performance of graduands for employability could also be introduced as a broader regional commons initiative. Instead of simply surveying students on their satisfaction, an omnibus of the region should measure effectiveness. This should incorporate international partners to assess global impact. Rewards for educational excellence, including high quality theory, could be applied and then monitored by the advisory board. Review research quantum and other measures to ensure the commons remains connected should also form part of the brief. As suggested, this process is not new to some business schools, but its broader diffusion would add some competitive tension to the sector. Signalling is indeed a two-way activity. Knowing that a university ranks highly in skills development and employability signals to the best students where to enrol.

5.3 Limitations and future research directions

Variations across cultures and across universities are noted in the literature review; such variations are likely to have strong implications. The commons portrayed through our cases in the Australian context may be different to that of other countries. This requires further exploration and offers a strong opportunity for future research. Additionally, the discussion in this study is limited to one university. It would be valuable to audit programs in other institutions both in and beyond Australia

to gather a fuller picture of the status quo. This links closely to our identification of the need for more research to measure impacts of effective teaching-practices and interventions.

Shining a light on teaching-practice as a way of bridging the growing gap in research-practice is a key aim of the paper. Unfortunately, this coincides with what some are suggesting is a sector on the edge of disruption. Improving teaching and education in business schools, as a *science* and as a *practice*, has therefore never been more pressing. Fortunately, there are many ways forward. Gamification, virtual reality, artificial intelligence and social media are all potentially ways to improve the effectiveness of teaching-practice outcomes. These instruments are already in use in many of our institutions and adapted appropriately, can help turn teaching into *learning* with androgogical rigour. A detailed study of these tools and their role within the commons is beyond this article's scope but such investigations will be fascinating going forward. What our senior executive praxis cases highlight is that wisdom seldom emanates solely from technology enablers. Case D was all about tactile and sensory peer interactions and in these settings, like in Cases B and C, even the educator becomes an "actor" in a virtuous knowledge "theatre". Learning how to facilitate such theatres is an important horizon for academics traditionally used to standing and delivering.

The evidence highlights that marketing and management is not lacking in theory-driven research and researchers. Ironically a major research challenge going forward is to find ways of attracting and incentivising better *communicators* and *educators* to research ways of *turning* our current *researchers* into better *teachers*.

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