

Letter from the Guest Editors

Navigating a career in tertiary education management in an era of unceasing transformation

As we consider the focus and content for this special issue about practice-led research by tertiary education (TE) managers, we take the opportunity to reflect upon some of the broader settings affecting these endeavours, as well as development of the people who undertake this work as a career. Indeed, if enough of the many thousands of people who ‘do’ TE management think of this as a profession—and if you are reading this editorial then chances are this is so—then some discussion about signifiers of a maturing profession for TE management is necessary too. The *Aims and Scope* of this journal states that the audience are ‘managers in post-secondary education, who seek to locate their work and interests in a broad context and who seek to influence educational policy and practice’ (<http://www.tandfonline.com/toc/cjhe20/current>).

The contributions to this special issue, to be introduced at the end of this discussion, are themselves markers of the kinds of thought leadership expected by practitioners in maturing professions. These accounts are drawn from capstone projects supervised at the LH Martin Institute for Tertiary Education Leadership and Management, as part of the Master of Tertiary Education Management awarded by The University of Melbourne, Australia. Their studies have been an opportunity for them to research a topic of professional interest, and all are to be congratulated for their determination to explore their own management practice whilst holding down challenging roles in a sector beset with change and uncertainty. As you will see, some have academic appointments and others are employed as professional services staff; yet, rather than dwell on a ‘divide’, they have supported each other to complete their studies in TE management.

This is the first point we wish to highlight in this editorial—that we already have common ground here regarding the work of TE management. It is useful to think of this work as undertaken to a greater or lesser extent by all who work in the sector—rather than perpetuate any *us and them* divide. Then, for those of us who do this work to a *greater extent* we can consider how we may play our part in maturing this global TE management profession. TE managers are generally very well credentialled, with findings from the 2016 Association for Tertiary Education Management (ATEM) sector survey (Miroso, Abela, Davis, & Graham, 2017, p. 3) where ‘428 higher education staff...from nearly 59 institutions across Australia and New Zealand gave their views on a wide range of employment issues’ (p. 2) showed that 62 per cent of respondents held post-graduate university degrees or diplomas. Academic staff with management responsibilities generally have research degrees, as requirements for employment.

We posit that practice-led research and the sharing of professional insights are fine examples of thought leadership. Nevertheless, opportunities like these to contribute to the maturing of the profession are regarded as aspirational for many TE managers. Undeniably, there are many considerations to think about when developing careers or maturing the management profession for the sector. The opportunity to write this editorial allows us to reflect upon some of the trends and challenges in a broader sense, and spot the emerging patterns we have brought together in Table 1. We hope these ideas encourage ongoing conversations about careers, professional development and the maturing of the profession.

We argue that, as knowledge workers, TE managers are well advised to take responsibility for the development of their own professional practice and career development. We need to be actively managing our careers in changed and changing times, where likely flatter hierarchical structures will no longer fit with the idea of climbing a corporate ladder. Pragmatically, opportunities for fulfilment and growth are likely to present horizontally as well as vertically as TE managers step in and out of ongoing appointments, given we are in a period of unceasing transformation. already evident are the blurring of boundaries between what constitutes academic or administrative work, and who does this work, with Celia Whitchurch's work being instructive (see, Whitchurch, 2009, 2015; Whitchurch & Gordon, 2017)

This transformation is partly due to outdated legacy systems, suited to a time when higher education was funded as an elite system; now, the system and funding arrangements are overstretched and unable to cope with the realities of the massified higher education system that emerged in the 1980s. We are currently sandwiched with these legacy challenges at the same time as eyeing a likely future replete with disruption due to technological advances in digitisation, machine learning and automation (see for example, Brynjolfsson & McAfee, 2011, 2014; Milligan & Kennedy, 2017; Schwab, 2016; Susskind & Susskind, 2015).

Therefore, institutional energies may be elsewhere and may not be meeting the necessary demand for support for our own necessary and ongoing development—we may need to take responsibility ourselves as 'lived professionalism' (Goedegebuure & Schoen, 2014, p. 1389) rather than limiting our own career advancement.

The T³ model

Conceptually, the means for considering these responsibilities are laid out as a model in Figure 1: T³ model for TE Management Practice. This model is to encourage conversations in the sector to consider our work, careers and how to map, reflect and evaluate TE management practice within 'volatile, uncertain, complex and ambiguous (VUCA)' (Johansen, 2009, p. 6) conditions which frame the seemingly unceasing agendas for transformations we find ourselves in today.

We discuss each of the three 'Ts' in turn to consider: the work in T1, using the idea of the T-shaped professional; protean careers in T2; and finally, in T3, a way to map, reflect and evaluate TE management practice across the sector using Self-Determination Theory (SDT). In discussing these elements separately, then as a coherent and well-aligned set of ideas, we hope that TE managers at any stage of their career and time in the sector will find them useful. In sharing these ideas we also hope that further conversations will ensue, which will contribute to a shared language to help aggregate individual development to get a sense of where we are up to as a maturing profession.

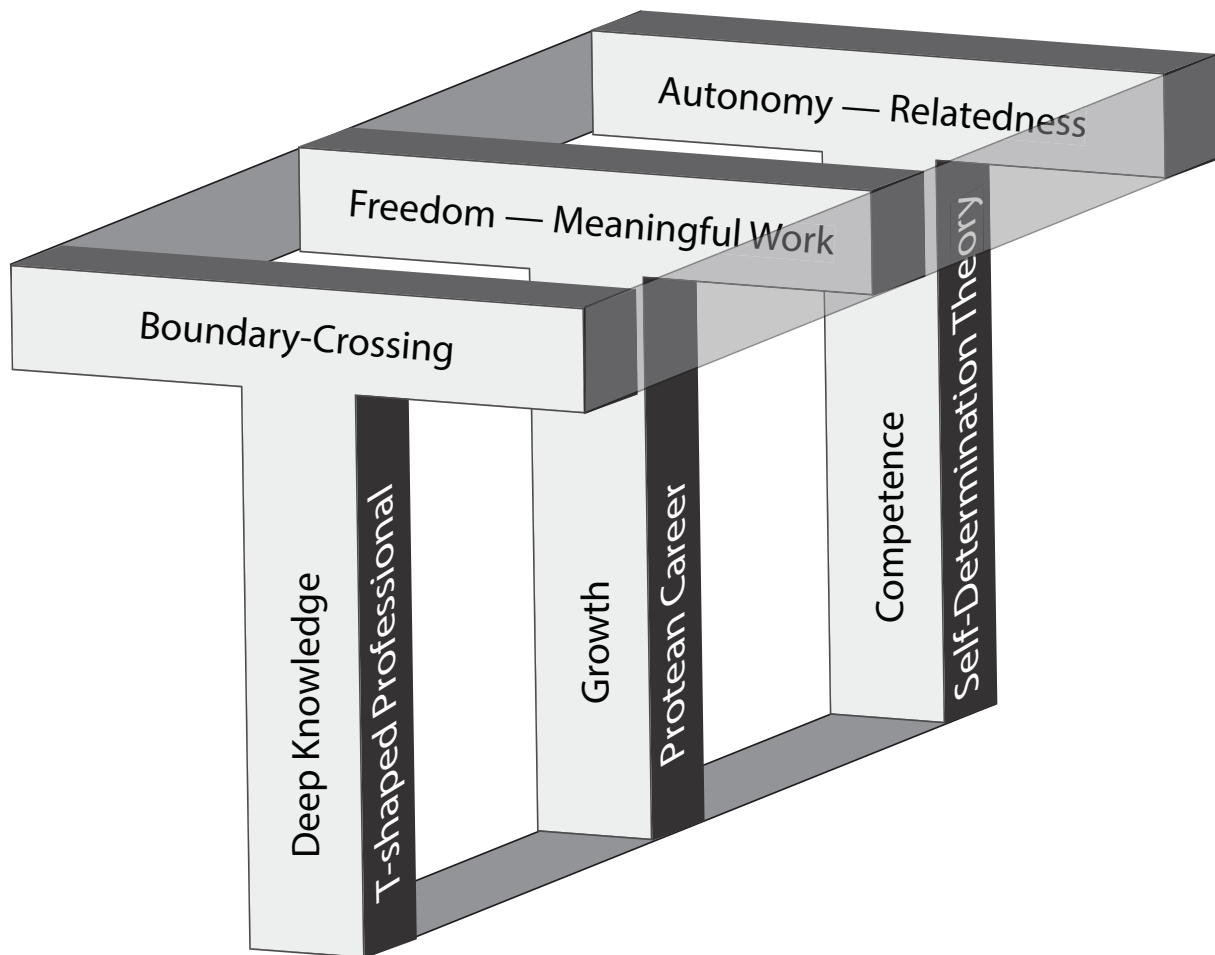


Figure 1: T³ model for TE Management Practice

T1: The T-shaped professional

In *Developing and Managing Yourself* – Module One of the Emerging Leaders and Managers Program (eLAMP) offered to the sector by the LH Martin Institute since 2012 – we argue that the time has well passed, if indeed it ever existed, when TE managers could get by on deep knowledge/technical competency alone (i.e. the vertical part of the ‘T’). Whilst these technical competencies in a chosen profession or niche knowledge area are still necessary they are no longer sufficient due to the VUCA environment we operate within. What else is needed is likely contained in the horizontal part of the ‘T’ and capabilities described by Demirkan and Spohrer (2015) as ‘boundary-crossing’: these are the extra skills and behaviours that rely heavily on knowing the self well. These may be named variously as soft skills, employability skills, engagement skills, innovation markers. Interestingly these intangible capabilities are like the very graduate attributes every TE institution expects their students to have at the completion of their degrees. The T-shape framework provides us with the means to acknowledge the importance of these for knowledge work and to discuss and embed these largely invisible attributes in ways that count and indeed can be counted and developed.

Today professional staff repertoires include soft skills and behaviors which rely heavily on knowing the self well. Here the idea of the T-shaped professional is a term that elevates the many tangible and intangible strands necessary for higher education management work in knowledge-intensive institutions. (Davis, 2018, pp. 1-2).

Whilst it is not necessary for everyone in TE institutions to be ‘T-shaped’ given, as Demirkan and Spohrer (2015) argue, the ratio of T-Shape professionals to other staff depends on external factors, and expectations regarding speed of change:

It is important to understand that the rise of T-shaped people does not mean the extinction of I-shaped (or other shaped) people; other kinds of learners and workers also have a place in a strong, flexible organization. However, the changing nature of innovation will drive a change in the ratio of different kinds of people required for maximum performance. The ideal ratio of T-shaped people to other kinds of people depends on how rapidly or slowly the organization changes or aspires to change—what James March (1991) termed the balance between exploration (change) and exploitation (routine) (p. 14).

We suggest that careful consideration of the idea of the T-shaped professional is worthwhile for TE managers in the current climate of unceasing transformation now that you may wish to fill in any gaps in your own repertoire, made visible by the horizontal part of the ‘T’. Given that the T-shape professional metaphor is relatively well known for describing attributes needed to be innovative and to do knowledge work (Ing, 2008), the T shape itself has proven a useful framing device for us to coherently map the next two elements so that each part reinforces the whole.

T2: Protean Careers

Traditional conceptualisation of careers was defined as a ‘succession of related jobs, arranged in a hierarchy of prestige, through which persons move in an ordered, predictable sequence’ (Wilensky, 1960, p. 554): often referred to as a *career ladder*. These careers were also often within *one* organisation (Schein, 1971), supported by career development activities predominately carried out by the employing organisation (Baruch & Peiperl, 2000). Benko, Anderson, and Vicberg (2011) contend that the:

corporate ladder has been the de facto standard shaping the way companies—sometimes consciously and sometimes not—have operated for the past century. But deeply held ladder assumptions are limiting our ability to respond to the changing corporate landscape. Continuing to invest for the future using yesterday’s blueprint is futile. What’s needed is a new model for driving agility and high performance (p. 92).

Such an orderly and predictable progression of related jobs, resulting from prescribed organisational activities, is no longer feasible or desirable (Sullivan & Baruch, 2009) due to the world being less certain or predictable. Career paths for VUCA conditions and knowledge work need to be more ‘multidirectional, dynamic and fluid’ (Yehuda, 2004, p. 59) and better explained as the more adaptive term *career lattice*, which is:

better suited to align with the changing needs, norms and expectations of today’s workplace...The corporate lattice metaphor signals a shift in mindset and outlook as we cross the chasm from the Industrial Age to the knowledge economy. It represents the multidirectional, flexible and expansive nature of how successful organizations work today...and marks an inflection point in the ways careers are built, work is done and participation in the organization is fostered (Benko et al., 2011, p. 95).

We use *lattice* here in terms of career management, as used in wider career literature from outside the sector. Within higher education this term may have pejorative connotations. This is due to Zemsky, Wegner, and Massy (2005) introducing the terms *administrative lattice* and *academic ratchet* as ways to explain the effects on traditional academic work from the 1980s when institutional bureaucracy and market rhetoric began to take hold.

A wide range of career theories have developed over the last 60 years (Hall, 2002; Sullivan & Baruch, 2009), with the focus of the theories generally moving from organisational to individual career management (Herrmann, Hirschi, & Baruch, 2015). Fitting with the idea of the career lattice, the protean career—characterised as self-directed and values-driven (Hall, 1996, 2004)—is widely accepted as providing a sound theoretical underpinning to several key issues in career management and organisational behaviours (Herrmann et al., 2015). Fundamental to the conceptualisation of the protean career are the core values of freedom, growth and meaningful work. In a protean career, freedom entails having the autonomy to take personal responsibility, while growth is defined as the development of competencies through continuous learning (Hall, 1996). Meaningful work may be thought of as work that provides satisfaction for the individual while requiring professional commitment, which engender psychological success (Hall, 2004). Furthermore, to develop adaptability and self-awareness—the two meta-competencies of a protean career conceptualisation—connections and interactions with other people are essential (Hall, 1996).

Thus, the core values of the protean career theory—freedom, growth and work satisfaction—are highly congruent with the other parts of the T³ model (Figure 1). In reflecting on the alignment of the protean career theory (T2) with the T-shaped professional (T1) it is evident how well the protean value of *growth* corresponds to the T-shaped professional's *deep knowledge*, while the T-shaped professional's *boundary-crossing* capabilities are captured in the protean values of *freedom* and *work satisfaction*: knowing oneself, taking responsibility, working with others across disciplines and demonstrating professional commitment.

Before we progress to discuss SDT (T3), we pause to note that despite the apparent suitability of a protean career approach for TE managers today, we see the inherent self-responsibility of this approach as supplemental to the ongoing institutional responsibilities for workforce development. That is, for the conditions and likely step-changes necessary, we see a healthy self regard for one's individual career connected with healthy investment in professional development of staff at the institutional level as necessary. We would go so far as suggesting that such commitment to development will likely be the mark of employees and employers of choice within the sector.

In considering the career development needs of early career professional staff in universities, Graham (2009) questioned how well these staff, at the beginning of their careers, were equipped to engage with the requirements of a protean career on their own. Recently, it has been found that professional staff embrace career development in ways that incorporate both traditional career and contemporary approaches (Gander, 2018). More generally, research findings suggest that organisations should take a role in fostering a protean career orientation for their staff (Herrmann et al., 2015); such an approach would embody both an organisational career management style and a protean career mindset.

T3: Self-Determination Theory

At the recent Tertiary Education Management conference (Davis, Graham, & Robertson, 2017) we argued that there was 'nothing as practical as a good theory to support TE management practice' and we introduced SDT. Both of us have been aware of SDT for some

time and thought it a useful theory work to help unpack the likely mindset and skillset shifts needed to be agile enough to work with disruptions ahead in the sector. The resulting feedback from TE managers who were keen to explore this theory in their own practice became the inspiration behind the development of this T³ model for this editorial.

SDT is a well regarded theory of motivation with a premise that attention to and experience of autonomy, relatedness and competence fosters volition, intrinsic motivation and engagement, resulting in enhanced performance, persistence and creativity (Ryan & Deci, 2000, pp. 68-78). Furthermore, SDT defines these needs as universal necessities, analogous to nutrients that are essential for human development (Gagné & Deci, 2005). In the context of the SDT framework, *competence* refers to the feeling of mastery in interactions with social and physical environments (Gagné & Deci, 2014), including self-development and challenging one’s current abilities and knowledge (Baard, 2004). *Autonomy* concerns volition and authenticity: the freedom to make choices, tempered by self-regulation in the pursuit of self-selected goals (Gagné & Deci, 2014; Ryan & Deci, 2000). *Relatedness* involves belongingness and connectedness with others (Ryan & Deci, 2000).

SDT has been used as a lens for understanding the intrinsic motivations of both professional services (Graham, 2013; Regan & Graham, 2018) and academic staff (Fein, Ganguly, Banhazi, & Danaher, 2017). By extension, we argue that SDT can serve as a useful framework for understanding the motivations of TE managers, and for reflecting upon, evaluating and critiquing professional practice, professional development and career progression. Like any theoretical frame, it provides a lens to identify what is absent, just as much as highlighting how well we are doing with the visible parts of TE management practice. As shown in Table 1, there is strong conceptual alignment across the three frameworks brought together in Figure 1.

Table 1: Alignment of conceptual and theoretical frameworks

T-shaped professional	Deep knowledge in at least one function, system and/or context	Boundary crossing competencies in relating to and engaging with others and/or competencies across many functions, systems and contexts	
Protean career	Growth: development and continuous learning	Freedom: autonomy and responsibility	Meaningful work: satisfaction and commitment
Self-Determination Theory	Competency: mastery and growth	Autonomy: volition and authenticity	Relatedness: belongingness and connectedness

Now that we have the means to identify gaps and measure progress for TE management practice and careers, we turn our attention to the ongoing professional commitment to career development and advancement.

Blueprint for Career Development

We take this opportunity to conceptualise a blueprint to assist TE managers to reflect upon the areas for development in their careers, no matter where you are now, and to consider the likely changes ahead for this work in the future. In her study of careers of professional staff in higher education, Gander (2018) derived five key career enablers: competencies, performance, continuing professional development, job rotation and networking. Building on

this work, we propose a blueprint for the personal and professional development of TE managers that leads to thought leadership in the profession.

Consistent with a protean career path, in which an individual is a continuous learner and the career path is developed through learning cycles (Hall, 2004), our blueprint for development is envisaged as a spiral in which developmental activities build upon each other, yet may be revisited as the need requires (Figure 2).

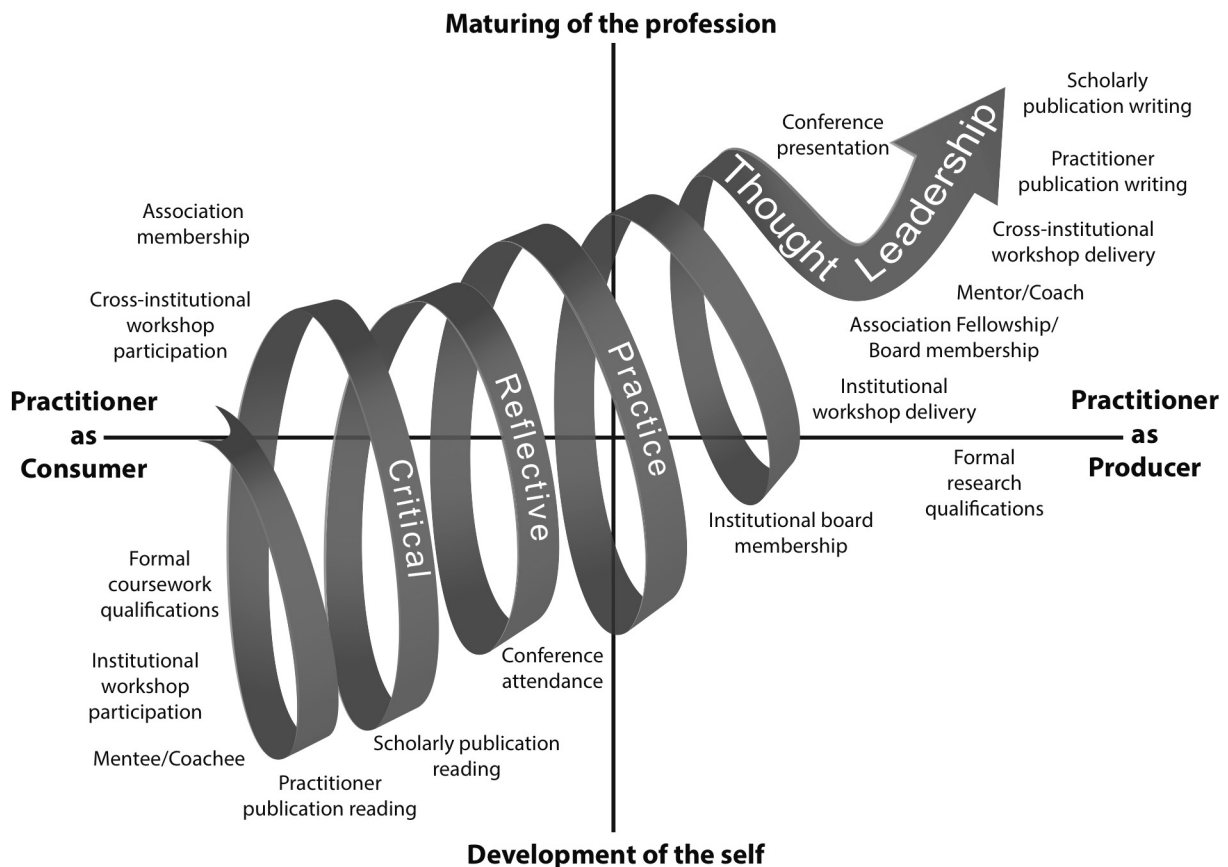


Figure 2: Blueprint for development

In conclusion, we encourage you to begin big, begin small—but just begin now—to invest in your practice and development. Careers in TE management have moved beyond traditional approaches that assumed a series of stable, predictable appointments moving up a hierarchical ladder. Nevertheless, in enacting individual agency within the sites of this work—TE institutions—managers will necessarily interact with their employing institutions. It may be necessary to manage ‘up’ if signs of institutional support for your work and development are not transparently evident. Some suggestions for the kinds of institutional investment we mean to support TE management’s ‘lived professionalism’ are provided by Goedegebuure and Schoen (2014):

...serious professional development that empowers professional staff to truly master their jobs, to take responsibility for their actions, and to explore the boundaries of what can be done rather than rigidly stick to prescribed policies and procedures. This implies clear autonomy and accountability principles to be implemented. While some Australian universities are quite exemplar when it comes to continued professional development for its professional staff, for the majority of institutions this remains an area of concern. As is the case for any organisation, unless staff are adequately equipped to undertake their role,

substandard performance will be the result. This mastery of function in an academic environment needs to be complemented with an understanding of what it is that makes academics ‘tick’, for it is only then that the bridging we discussed above can actually take place. This ‘lived professionalism’ is an essential ingredient to effectively address the challenges we are facing, and it is here that ‘leading by example’ is crucial for our management teams (p. 1389).

Papers in this issue

Not only is such ‘leading by example’ described by Goedegebuure and Schoen crucial for our management teams, we argue that these kinds of contributions are also evidence of the maturing of the TE management profession. We offer these five papers for this special practice-led research issue as exhibits of leading by example for the profession.

The first paper by **Sabina Robertson** explores efficacy of training and development for liaison librarians at Deakin University in Australia. By applying a lens of SDT (T3 in Figure 1) to guiding documents and evaluations of an established program Sabina found that the professional development literature in librarianship as well as the focus and activities at her institution were skewed heavily towards competencies, with less about developing capabilities for the people undertaking this work.

The next two papers are examples of professional services staff striving for excellence in particular parts of important areas of work in Higher Education Institutions. Given that, improving the service experience and addressing operational inefficiencies are operational imperatives now that lie behind many of the transformation agendas in the sector today, **Sharone Ciancio’s** paper is timely. Sharone undertook a systematic analysis of service excellence and business process improvement in the Australian universities and found that the top two principles underpinning strategy in Australian universities were *sustainability/continuous improvement* and *excellence*. No less newsworthy in Australia at present is the issue of student attrition. **Jenny Roberts** explores the impact that professional services staff can have on retention and positive student outcomes. Jenny has made a worthwhile contribution to the field by mapping student services staff activities to support student retention and success within the student lifecycle

The final two papers are by academic staff who, not surprisingly, consider areas of research management as sites of their TE management practice. **Carmel Diezmann** opens the lid on the Excellence for Research Australia (ERA), not through analysis of the process itself given it is hidden behind layers of secrecy, rather by exploring an alternative option to improving ERA performance. Using publicly available secondary data, Carmel analysed the research strategies of five Queensland universities to determine ways that they enhanced their research performance. Next **Robin Yates** explores research prioritisation in his investigation of strategic research prioritisation in veterinary schools. He used an exploratory mixed-methods approach to characterise the priority research area landscape and to compare and evaluate the effectiveness of research prioritisation strategies in veterinary academe using bibliometrics. He found a positive relationship between identifiable research prioritisation strategies and research performance of veterinary schools.

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References

- Baard, P. P. (2004). Intrinsic need satisfaction in organizations: A motivational basis of success in for-profit and not-for-profit settings. In E. L. Deci & R. M. Ryan (Eds.), *Handbook of self-determination research* (pp. 255–275). Rochester, NY: The University of Rochester Press.
- Baruch, Y., & Peiperl, M. (2000). Career management practices: An empirical survey and implications. *Human resource management, 39*(4), 347–366.
- Benko, C., Anderson, M., & Vicberg, S. (2011). The corporate lattice: a strategic response to the changing world of work. *Forbes*(8), 92-107.
- Brynjolfsson, E., & McAfee, A. (2011). *Race against the machine: how the digital revolution is accelerating innovation, driving productivity, and irreversibly transforming employment and the economy*. Lexington, Mass.: Digital Frontier Press.
- Brynjolfsson, E., & McAfee, A. (2014). *The second machine age: work, progress, and prosperity in a time of brilliant technologies*. New York: Norton & Co.
- Davis, H. (2018). Connecting the Dots for Professional Practice in Higher Education: Leadership, Energy Management, and Motivation. In C. Bossu & N. Brown (Eds.), *Professional and Support Staff in Higher Education* (pp. 1-15). Singapore: Springer Singapore.
- Davis, H., Graham, C., & Robertson, S. (2017). *Conference Presentation: Maturing a sense of leadership identity for tertiary education managers*. Paper presented at the Tertiary Education Management Conference 2017: Eureka Revolutionary Ideas, Melbourne. <http://2017.temc.org.au/session-abstracts/>
- Demirkan, H., & Spohrer, J. (2015). T-Shaped Innovators. *Research Technology Management, 58*(5), 12-15. doi:10.5437/08956308X5805007
- Fein, E. C., Ganguly, R., Banhazi, T., & Danaher, P. A. (2017). Self-Determination Theory and Academic Life. In *Producing Pleasure in the Contemporary University* (pp. 171-184): Springer.
- Gagné, M., & Deci, E. L. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior, 26*(4), 331–362. doi:10.1002/job.322
- Gagné, M., & Deci, E. L. (2014). The history of self-determination theory in psychology and management. In M. Gagné (Ed.), *The Oxford handbook of work engagement, motivation, and self-determination theory* (pp. 1–9). New York, NY: Oxford University Press.
- Gander, M. (2018). Careers of Professional Staff in Higher Education: Theory and Practical Implications. In C. Bossu & N. Brown (Eds.), *Professional and Support Staff in Higher Education* (pp. 1–16). Singapore: Springer Singapore.
- Goedegebuure, L., & Schoen, M. (2014). Key challenges for tertiary education policy and research – an Australian perspective. *Studies in Higher Education, 39*(8), 1381-1392. doi:10.1080/03075079.2014.949542
- Graham, C. (2009). Investing in early career general staff. *Journal of Higher Education Policy and Management, 31*(2), 175–183.
- Graham, C. (2013). Professional staff contributions to positive student outcomes: a case study. *Australian Universities' Review, 55*(1), 7–16.
- Hall, D. T. (1996). Protean careers of the 21st century. *The academy of management executive, 10*(4), 8–16.
- Hall, D. T. (2002). *Careers in and out of organizations*. Thousand Oaks, Calif. ; London: Sage.
- Hall, D. T. (2004). The protean career: A quarter-century journey. *Journal of Vocational Behavior, 65*(1), 1–13.
- Herrmann, A., Hirschi, A., & Baruch, Y. (2015). The protean career orientation as predictor of career outcomes: Evaluation of incremental validity and mediation effects. *Journal of Vocational Behavior, 88*, 205–214.

- Ing, D. (2008). T-shaped professionals, T-shaped skills, hybrid managers. *Coevolving innovations in business organizations and information technologies*. Retrieved from <http://coevolving.com/blogs/index.php/archive/t-shaped-professionals-t-shaped-skills-hybrid-managers/>
- Johansen, R. (2009). *Leaders make the future: ten new leadership skills for an uncertain world*. San Francisco: Berrett-Koehler Publishers.
- Milligan, S., & Kennedy, G. (2017). To what degree? Alternative micro-credentialing in a digital age. In R. James, S. French, & P. Kelly (Eds.), *Visions for Australian Tertiary Education* (pp. 41-54). Melbourne: Melbourne Centre for the Study of Higher Education.
- Miroso, R., Abela, P., Davis, H., & Graham, C. (2017). *2016 ATEM Tertiary Education Sector Workplace Survey: Results and Analysis*. Retrieved from Sydney: <http://www.atem.org.au/eknowledge-repository/>
- Regan, J.-A., & Graham, C. (2018). A career in professional services: accident, serendipity or something more? *Journal of Higher Education Policy and Management*, 40(1), 3–17. doi:10.1080/1360080X.2017.1411062
- Ryan, R. M., & Deci, E. L. (2000). Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being. *American Psychologist*, 55(1), 68-78.
- Schein, E. H. (1971). The individual, the organization, and the career: A conceptual scheme. *The Journal of Applied Behavioral Science*, 7(4), 401–426.
- Schwab, K. (2016). *The future of jobs: employment, skills and workforce strategy for the fourth industrial revolution*. Geneva: World Economic Forum.
- Sullivan, S. E., & Baruch, Y. (2009). Advances in career theory and research: A critical review and agenda for future exploration. *Journal of management*, 35(6), 1542–1571.
- Susskind, R. E., & Susskind, D. (2015). *The future of the professions: how technology will transform the work of human experts*. Oxford, UK: Oxford University Press.
- Whitchurch, C. (2009). Progressing professional careers in UK higher education. *Perspectives: Policy and Practice in Higher Education*, 13(1), 3–10.
- Whitchurch, C. (2015). The rise of third space professionals: paradoxes and dilemmas. In U. Teichler & W. K. Cummings (Eds.), *Forming, Recruiting and Managing the Academic Profession* (pp. 79-99).
- Whitchurch, C., & Gordon, G. (2017). *Reconstructing relationships in higher education: challenging agendas*. London: Routledge.
- Wilensky, H. L. (1960). Work, careers and social integration. *International Social Science Journal*, 12(4), 543–574.
- Yehuda, B. (2004). Transforming careers: from linear to multidirectional career paths: Organizational and individual perspectives. *Career Development International*, 9(1), 58–73. doi:10.1108/13620430410518147
- Zemsky, R., Wegner, G. R., & Massy, W. F. (2005). The lattice and the ratchet. In *Remaking the American university: market-smart and mission-centered* (pp. 15-31). New Brunswick, N.J.: Rutgers University Press.

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