HOW DO RESEARCH-INTENSIVE UNIVERSITIES PORTRAY EMPLOYABILITY STRATEGIES? A REVIEW OF THEIR WEBSITES

Employability development is a strategic priority for universities across advanced western economies. Despite this, there is no systematic study of employability development approaches internationally. In this study we considered employability development strategies communicated via university websites. We undertook website content analysis of 107 research-intensive universities in Australia, Canada, the United Kingdom (UK) and the United States (US). Using Farenga and Quinlan (2015), we next classified these strategies as Portfolio, Hands-off, Award, and a new strategy termed Nonembedded. Portfolio or Award strategies were the most common across all four locations; however, the Hands-off and Non-embedded strategies were more common to US universities and Award was more common in the UK. Holmes's (2013) employability approaches revealed that the universities utilized either possessional or positional approaches. We advocate for a pedagogical shift towards processual approaches through learning and teaching that develops graduate identity and in which longer-term responsibility for employability development is shared.

Enhancing student employability has become a strategic priority for Institutions of Higher Education (defined here collectively as universities) in many advanced western economies. This has been driven by government initiatives and labor market changes. Policies leading to massification of higher education over the past few decades coupled with the recent economic downturn have resulted in a large supply of graduates competing for work in the graduate labor market. This has coincided with a shift towards a more flexible, knowledge-driven economy and increased global competition for skilled labor. In this environment employees need to be adaptable, lifelong learners who develop transferable skills to maintain a competitive edge in a highly volatile and unpredictable labor market. Within this context there has been an increased focus on the role of universities and their capacity to develop work-ready, socially responsive, and skilled graduates (Boden & Nedeva, 2010; Office for National Statistics, 2012; Siefert, 2011).

Universities are responding to changing government policies and labor market demands by implementing a range of initiatives designed to enhance student employability. Widespread approaches include work-integrated learning (Freudenberg, Brimble, & Cameron, 2011), optional or compulsory stand-alone employability units, and employability activities embedded throughout degree programs (Pegg et al., 2012). Research into employability initiatives to date typically focuses on individual or a collection of activities across a single or small group of institutions or departments (see for example, Faulkner et al., 2013;, Patrick, & Peach, 2010; Mason, Williams, & Cranmer, 2009; Owens & Tibby, 2014; Watson, 2011). Very rarely do publications report on strategies adopted at an institution-wide level. In one such paper, Farenga and Quinlan (2015) reported a review of careers services websites from

24 research-intensive universities in the UK and the authors proposed three strategic models with which student employability is developed: *Hands-off, Portfolio*, and *Award* (defined below). In this paper we extend the work of Farenga and Quinlan (2015) by selecting a sample of 107 research-intensive universities across four locations (UK, Australia, Canada, and the US) and reviewing employability content on their webpages, including careers services websites. Using this broadened approach and an international population of universities, we consider two questions:

- 1. What employability related content appears on university websites?
- 2. What does this content communicate about their employability strategies?

Through our research we endeavor to show how employability strategies at an institutional level might align with the models proposed by Farenga and Quinlan (2015), and whether other models of employability might emerge. Such models can act as conceptual frameworks for understanding how employability is enacted or operationalized within universities, and in turn they are critical for employability related policy and practice. Models can also inform the broader alignment of employability with university missions, and they are crucial to the design of associated teaching and learning approaches. Against this background, our work focuses on the public messages universities portray about employability and is integral to shedding light on the different ways that universities engage with employability.

Our work also sheds light on the conceptual frameworks on which these strategies are based and what these mean for learning and teaching, including whether employability is outwardly portrayed and internally perceived as possessional, positional or processual (Holmes, 2013). In this study we utilized Holmes's (2013) definition of employability development: namely, the process of creating a worker identity where one develops the capacity for self-management, life-long learning, and adaptability. We also used Holmes's (2013) framework for analyzing university employability perspectives and approaches, which he defined as *Possessional* (possession of employability attributes), *Positional* (capital), and *Processual* (focus on the process of employability development).

Farenga and Quinlan (2015) described three employability models utilized by the UK Russell Group universities: Hands-off, Portfolio, and Award. The authors characterized the Hands-off model as one where skills such as problem solving, communication skills, and leadership are seen as being naturally developed through the academic programs; and where specific gaps identified by students might be filled through activities offered by a careers service. This model is typified by a clear distinction between the role of academic programs and the role of careers service in developing student employability, often with little interaction between the two.

In contrast, the Portfolio model is characterized as one where students are offered a portfolio of opportunities to develop their employability skills. Some of these are embedded within academic programs while others are offered as extra-curricular opportunities through a careers center or similar service and may be credit or non-credit-bearing. Portfolio models incorporate communication between academic departments and central services so that both

academic and professional careers staff contribute to employability delivery. In the Award model, the main strategy is to offer a formal credential rather than a "pick and choose" menu of offerings; these often come from both Faculty and carers services. Thus, students who complete a program of activities designed to enhance employability will receive an additional transcript, certificate, or similar award.

According to Holmes (2013), one of the most common approaches to graduate employability is the possessional, which focuses on graduates possessing skills, abilities, or characteristics needed for employment. Conceptually, the possessional approach is aligned with demands for "employable" graduates, and as such includes the development of generic skills that employers believe to be missing (Van der Heijde & Van de Hejden, 2006). Recognizing the difficulties of developing and evaluating these items, a number of countries have established graduate attribute frameworks. For example, Canada has developed an Employability Skills Profile (ESP) that delineates three major themes of *academic*, *personal management*, and *teamwork* (Leroux & Lafleur, 1995). In Australia, graduate attributes are detailed in a Blueprint for Career Development (Commonwealth of Australia, 2010) that emphasizes *Personal* management, *learning and work* exploration, and *career building competencies*.

Positionality, Holmes's second approach, concerns the idea that one's social and cultural relationship to the labor market can influence the probability of employability. Employability from this perspective is a "complex construct encompassing the wider personal, social,

economic, and labor market circumstances" (Sin & Neave, 2014, p. 3). It is also a reciprocal relationship as one's social, economic, and cultural capital influences changes with local, state, and national labor markets (Brown, Hesketh, & Williams, 2003; Yorke, 2006). Positionality highlights that students' attainment of skills, attributes, or particular characteristics through higher education study does not necessarily heighten their social or cultural capital (Peet, 2015), and that individuals from advantaged social backgrounds will position themselves better for limited high-skilled roles.

Holmes's third approach is termed processual and moves beyond skills to highlight the relationship between the integrative and continually interactive process of employability development and what Holmes (2013) has termed "gatekeepers". The emphasis here is to develop what Tomlinson (2012, p. 11) has described as "work-related dispositions and identities", which "lead others [gatekeepers] to ascribe to them the identity of being a person worthy of being employed" (Holmes, 2013, p. 30). These identities form as students "(re)conceptualise their strengths, interests and goals and experience a corresponding increase in curiosity, motivation, creativity and problem-solving" (Bennett, 2012, p. 27) through repeated engagement with learning opportunities and the workforce.

Against this background, we utilized Farenga and Quinlan's employability models to understand the employability content represented on an international population of university websites. In the discussion we map these to Holmes possession, position and process approaches, and we consider the implications of these for learning and teaching.

Method

Context and sample

Websites are one of the most accessible public faces of universities, accessible by multiple stakeholders including current and potential students, alumni, parents, educationalists, philanthropists, journalists, and employers. Institutional websites help shape the public image of an institution and they represent an important component of an institution's integrated marketing strategy. As such, websites should arguably reflect the most important messages a university wishes to portray in the shaping of its image.

Of course, websites are only one communication vehicle. Here, our methodological approach is informed by the work of Saichaie and Morphew (2014), who employed website content analysis to consider the strategic position of universities in connection with knowledge economy debates. Saichaie and Morphew (2014, p. 500) remarked on the need for research on institutional websites: while the messages communicated by institutional websites "should tell us much about how IHEs [Institutions of Higher Education] represent their purposes to prospective students", in fact little is known about what these messages portray.

Farenga and Quinlan (2015), who classified employability models among the UK Russell Group of 24 public research universities, undertook a content review of the careers services websites for these institutions. The Russell Group represents a group of "leading UK universities which are committed to maintaining the very best research, an outstanding

teaching and learning experience" (russellgroup.ac.uk). Similar self-selecting groups in the US (Association of American Universities), Canada (the U15 Group of Canadian Research Universities), and Australia (the Group of Eight or Go8) offer scope for a similar comparison of cases among English-language institutions internationally. Thus, shown at Table 1, cases for our study included all 107 members of the above university groups where research performance is the principle criterion for membership. In the increasingly competitive market place for higher education, a common perception is that these types of universities may be less reliant on explicit, public efforts to engage with employability to meet recruitment and graduate destination targets than newer, teaching-intensive or technology universities, largely because of reputational capital (Norton & Carroll, 2015). Our interest in international cases was also influenced by the increasing mobility of higher education students: data from the Organisation for Economic Co-operation and Development (OECD) confirm that over the two decades until 2011, the number of international higher education students grew threefold to almost 4.3 million worldwide (oecd.org, 2015).

[Please insert Table 1 here. Table 1: Summary of demographics for the sample universities]

Framework

We operationalized Farenga and Quinlan's qualitative descriptions of Hands-off, Portfolio, and Award models to inform the development of an online survey and to subsequently

classify each institution's employability strategy. Defining characteristics for each model are presented below:

<u>Hands-off</u> Three criteria, all of which must be met:

- 1. Employability development is not embedded within degree programs;
- 2. There is no employability award; and
- 3. Only non-credit bearing activities and events are available to students.

<u>Portfolio</u> Three criteria, all of which must be met:

- 1. Students can access multiple employability development opportunities;
- 2. Some employability development is embedded within degree programs (beyond that required for accreditation); and
- 3. Employability development opportunities are variously credit- and non-credit bearing, or entirely non-credit bearing.

Award An institution-wide employability award that is formally recognized in some way: for example, the award appears on a transcript, co-curricular record or separate certificate.

Team members entered their observations into an online survey hosted in SurveyMonkey (https://www.surveymonkey.com/). A trial with two university website cases led to refinements of the questions and explanatory text to ensure consistency of approach. The final instrument included 22 items comprising both closed and open questions and repeated themes for the purpose of triangulation. For each university, demographic information (student numbers, ratio of undergraduate to postgraduate students and numbers of academic staff) was collected. Employability content was gathered on the following five themes:

- 1. Reputation of the university and link to job prospects: the website indicates that attending the institution will, because of high reputation, enhance job prospects; graduate destination data included;
- 2. Careers service and its role: the institution has a careers service, which provides opportunities for employability development;
- 3. Presence of an employability award: a university-wide award that includes opportunities to develop multiple employability skills and is formally recognized through an official transcript or similar;
- 4. Multiple opportunities for students to engage with employability: *multiple* opportunities, credit-bearing or non-credit bearing, and evidence of opportunities embedded within academic programs; and

5. A list of graduate attributes that are university-wide and refer to employability or graduate job or career-preparedness.

Procedure

The procedure for analysis was informed by Groneman Hite and Railsback's (2010) study of 100 university websites through which a number of common website inclusions, reflecting the needs of both internal and external stakeholders, was identified. Groneman Hite and Railsback (2010) confirmed the need for website users to be able to complete their searches in as little as two clicks without the use of a scroll bar in order to access messages the authors deemed to be the most important for shaping an institution's holistic public image. However, 60% of the university websites analyzed by Groneman Hite and Railsback included a scroll bar on their homepage. Accordingly, we adapted their protocol when conducting our analysis:

- 1. Searches were restricted to three (rather than two) clicks from the identified page with use of scroll bar permissible;
- 2. Searches were undertaken from the following pages:
 - a. Home page;
 - b. 'About' page on which the university was described;
 - c. Pages for future students: e.g. admissions, new/potential students, courses;

- d. Pages describing careers services / career development / student
 employment / workshops relating to employability;
- e. Pages describing the university mission and its vision statement; and
- f. Pages for current students: e.g. student life, activities and/or organizations.

To reduce error and bias in coding (Mays & Pope, 2000) two primary coders initially analyzed ten universities selected alphabetically from the 107 institutions, ensuring proportional representation from each group. These results were discussed, and once consensus results for each question was reached, one primary coder and a second coder analyzed each remaining website. Inter-coder reliability was calculated for each instrument question. Where inter-coder reliability was less than 0.8, a third coder analyzed the website (Miles & Huberman, 1994). Agreement of two of the three coders was recorded as the final result. The final dataset had an inter-coder reliability of .86 to .95 for each question.

Results

Employability content presented on university websites

Engagement with employability was found to some extent in all the university websites analyses as evidenced at Table 2. With the exception of two universities in the US, all institutions operated a centralized careers service. Given Farenga and Quinlan's (2015)

suggestion that the Hands-off model is more likely at those institutions that rely on their reputation to attract students, we sought to identify how many institutional websites linked enhanced employment prospects to high institutional reputation, evidenced through statements relating to university rankings combined with narratives such as: "12th in the nation for sought-after graduates." Evidence of this link was found in just over half (51.4%) the institutions analyzed. As seen below, institution-wide graduate attributes were far more common in UK and Australian universities, with half these institutions describing institution-wide graduate attributes (54.2% and 50% respectively) in comparison with those in Canada (13.3%) and the US (1.7%).

[Please insert Table 2 here. Table 2: Employability-related content presented on university websites (*Count* (%))]

To understand the different modes of employability provision, we sought evidence of employability development through degree programs. We found evidence of activities embedded within degree programs at 75% of UK universities (highest) and 37.5% of Australian universities (lowest). We considered embedded opportunities within degree programs to be those beyond work-related learning required as part of professional training programs such as in Nursing, Engineering and Medicine. Examples included professional

development courses designed explicitly to develop employability skills, and experiential learning opportunities including work placements.

We found evidence that the vast majority of universities (100% - 96.7%) offered multiple opportunities for students to engage with employability: that is, at least one opportunity beyond a standard drop-in careers service. These opportunities were a mix of credit bearing and non-credit bearing activities in 87.5% of UK universities (highest) to just 38.0% in US universities (lowest). There was substantial diversity in institutional opportunities. These ranged from common activities such as careers workshops, short-term internships, careers fairs and employer networking/information sessions, to less common activities such as those highlighted at Table 3. We also noted that many of the US universities presented strong alumni links through their websites.

[Please insert Table 3 here. Table 3: Less common opportunities for employability development]

Classification of employability strategies

Following the work of Farenga and Quinlan (2015), employability strategies utilized by the universities were classified as Hands-off, Portfolio, or Award using the criteria presented earlier. Analyzed as a single cohort, the Portfolio strategy emerged as the most prevalent employability strategy (adopted by 39.3%) followed by a similar occurrence of Hands-off and

Award model (22.4% and 18.7% respectively). However, 19.6% of the cases did not fall within these categories. This group, labeled "Non-embedded," was characterized by the absence of a formal employability award and had no evidence of embedded employability development. However, students at these institutions had opportunities to engage in centrally delivered credit and non-credit bearing employability activities.

Shown at Figure 1, there were marked differences in employability development strategies when viewed by institutional location. While the Portfolio model was the most prevalent in all locations, the Awards model dominated in the UK (58.3% of the UK population). In contrast, the Awards model was used much less in Australia and Canada (25% and 20%, respectively) and was virtually absent from universities in the US (1.7%). This trend was reversed for the Hands-off model, which was employed more frequently in US universities (30%) than those in Australia (25%) and Canada (20%). Indeed, the Hands-off model was observed in only 4.2% of UK universities. The adoption of the Non-embedded model was most prominent in the US population with approximately one-quarter of US universities (26.7%) categorized in this way. We also assessed whether reputational claims were more common in universities operating the Hands-off model. Our analysis showed that this was not the case, with reputational claims being highest amongst universities classified as Award (75%) and lowest with the Hands-off (45.8%) and Non-embedded (42.9%).

[Please insert Figure 1 here. Figure 1: Prevalence of employability models by location]

Discussion

This study utilized Farenga and Quinlan's three employability models to classify the employability strategies viewed on the websites of 107 research-intensive universities. We observed that Farenga and Quinlan's three models were manifest within all four of our location-specific university groupings. However, we also identified a fourth transitional model for which we coined the term "Non-embedded". This model sits between Hands off and Portfolio and is characterized by the availability of multiple, centrally delivered employability development opportunities all offered outside the formal curriculum. Our work shows that employability models can be positioned along a continuum of institutional involvement and responsibility, with the Hands-Off at one end, followed by Non-embedded, then Portfolio, and ending with Award at the opposite end of the continuum. We found that location plays a role as to where institutions may cluster on this spectrum, with US institutions clustering towards the Hands-off end while UK institutions appear at the opposite, Award end.

We found no evidence of Farenga and Quinlan's assertion that (high) reputational claims are more common amongst institutions that utilise a Hands-off model. Rather, we found that such claims were higher on institutional websites using the Awards model. Thus the way in which institutions may choose to enact employability are more likely to be linked with geographical location and the employability discourse associated with that location. For example, the strong employability agenda in the UK (see Ekaterina, 2013) explains to some

extent the more formalised, Awards approach to employability in the UK. It also explains the frequency of reputational statements associated with enhancing job prospects, found on the sites of universities operating the Awards model.

We next ask what the different models might mean in higher education learning and teaching. With an emphasis on the operationalization of employability development, the discussion is organized according to Holmes's (2013) possessional, positional, and processual approaches.

The possessional approach to employability development

Holmes's (2013) possessional approach focuses on graduates possessing a collection of skills, abilities, or characteristics needed for employment. Initiatives used to develop skills and qualities within a possessional approach might include a combination of opportunities that are credit-bearing or non-credit bearing, embedded in the curriculum, co-curricular, or extracurricular. Thus the possessional approach aligns with Farenga and Quinlan's Portfolio model (2015). Where a Portfolio model leads to a formal credential such as a certificate, employability award, separate or modified transcript, the possessional approach encompasses both Portfolio and Award strategies.

Our findings, which show that the Portfolio and Award strategies are the most dominant across all four study locations, are consistent with Holmes's (2013) contention that in policy and practice discourse the most common approach to employability development is

possessional. Associated with the possessional approach has been the establishment of graduate attribute lists or frameworks (Holmes, 2013). We note here that Holmes is critical of the "skills and attributes" movement, and that his categorizations do not seek to favor such an approach. In our study, we identified institutional-level graduate attributes in approximately half of our UK and Australian sampled universities and much lower in the US and Canadian universities. We acknowledge, however, that language and context may have been factors here, in that Australia and the UK have engaged in rigorous national debates about graduate attributes (Oliver, 2011), whilst in other countries, discussion and therefore terminology has been much less explicit.

Opportunities to accrue both skills and additional or amended academic transcripts often entail shared responsibility as institutions make opportunities available and students select those in which they will be involved. The employability awards seen in the current study tended to be the result of an institution-wide response. As such they were most often centrally organized and monitored, bringing together and recognizing a range of both centralized and faculty-based activities. An institution-wide response to employability might indicate institutional commitment at the level of policy and strategy and might, in turn suggest meaningful engagement in the development of employability. Surprisingly, few awards were featured within the home and recruitment pages of institutional websites as might be expected if they were primarily recruitment tools.

The positional approach to employability development

As noted by Farenga and Quinlan (2015), students engaged in the three models have multiple opportunities to build their employability and gain valuable previews of career; this was also the case in our fourth model. Thus, building up personal capital through higher education study should enable graduates to better position themselves in the employment market. However, students and graduates with social and cultural capital are advantaged in the employment market, using their resources to access higher earnings (Norton & Carroll, 2015). Employers reinforce this selective advantage by recruiting from prestigious universities (Holmes, 2013; Tomlinson, 2012). As such, the Hands-off model may align with Holmes's positional approach in that it "may work well for students whose backgrounds are already privileged enough to have tacit labor-market awareness, networks, and cultural capital" (Farenga & Quinlan, 2015, p. 10).

We found the Hands-off model to be the second most prevalent across our population, but less than we had anticipated given our focus on research-intensive, typically prestigious universities. Indeed, we found that just over half the institutional websites explicitly linked enhanced employment prospects to high institutional reputation. These universities marketed their ability to heighten positionality through opportunities for networking with successful business owners or prosperous alumni, positioning access to professional networks as an employability advantage (Hillage & Pollard, 1998; Tomlinson, 2007). In the US group of universities in particular, university websites evidenced strong alumni networks. Other

learning and teaching activities to enhance social or cultural capital included opportunities for students to shadow, volunteer, or intern in their intended professions. In a Hands-off model, it is the responsibility of students to identify the need for development and seek out opportunities for development (Farenga & Quinlan, 2015).

The processual approach to employability development

One of the disadvantages of the possessional approach is that it can ignore the *process* (Holmes's (2013) third approach) through which skills and knowledge are identified, conceptualized, and realized in line with emerging identity. It is through this process that students come to imagine, convey and refine their graduate identities (Bennett, 2012; Holmes, 2013). It is similarly the process of self-authorship (Baxter-Magolda, 2001) through which individuals "develop along interrelated epistemological, intrapersonal and interpersonal dimensions towards making independent judgments about knowledge, self, values and relationships" with others (Bennett & Hennekam, in review).

Tangible examples of processual employability development come in the form of students' creation of professional portfolios. These are acknowledged for their role in enabling students to articulate and evidence skills and knowledge in relation to their emerging professional identity (Peet, 2015) such that they learn "how to portray themselves as focused and capable individuals with definable skills sets, and also as adaptable, lifelong learners who can reshape themselves to different contexts and develop new skillsets as required" (Bennett

et al., 2016, p. 120). The processual view of graduate employability is further supported through the work of Okay-Somerville and Scholarios (2015), who have shown that career-self management behaviors, in particular career exploration, networking and guidance seeking, can significantly enhance graduate employability.

It follows that for learning and teaching to incorporate the processual within fundamentally possessional or positional approaches, educators need to refocus career-related tasks to build reflective professional portfolios or *curriculum vitae* emphasizing the process of selecting and appraising evidence. Very few of the universities we sampled evidenced self-reflection activities in their website materials.

Employability development and leadership responsibility

Discussion of our findings in the context of Holmes's approaches and Farenga and Quinlan's models indicates that the public (website) face of employability development strategies for the universities we reviewed is positional or possessional. As outlined above, the selected strategy also indicates whether the responsibility for employability development is that of the student or the institution, or whether it is shared between the two. We illustrate this at Table 4. We assert that *process* is central to employability development and therefore the best strategy for graduate employability combines the development of skills, attributes *and* student/graduate identity. This is supported by the work of multiple authors (see Bennett, 2012; Holmes, 2013; Peet, 2015; Porter & Phelps, 2014).

[Please insert Table 4 here. Table 4: Employability development alignment and responsibility]

For some students, graduate identity is realized in a single instance, "like waking up one day and realizing that I could do all these things I didn't know I could do" (Peet, 2015, p. 18). For most students, however, the process is gradual and it is a central concern for learning and teaching. In this sense, employability becomes a set of person-centered constructs that involve individual proactivity and reflexivity relating to career identity, personal adaptability, and social and human capital (Fugate, Kinicki, & Ashforth, 2004). We argue that a pedagogical shift towards process and relevance, through reflection, engagement and experiential learning, offers multiple opportunities to engage industry, community, peers, alumni and career services; this shift has the potential to move each model towards a processual approach in which responsibility between the student, institution and employer is shared (Table 5).

[Please insert Table 5 here]. Table 5: An illustration of how employability development might focus on the processual approach with shared responsibility

The issue of shared responsibility brings to the fore the cognitive aspect of employability through which "learners develop along cognitive dimensions with respect to their dispositions and capacities to engage as professionals" (Bennett, 2016, p. 392). It is this, rather than the

functional dimension of employability, that aligns with the purpose of higher education and in which learners need to develop both autonomy and agency.

Concluding comments

Our study has implications for both policy and practice. It provides a framework against which institutions might gauge how employability is being enacted or operationalized. This might lead to consideration of the philosophies underpinning each strategy and the responsibility associated with each of these. It may also stimulate careful consideration of the employability messages institutions communicate to external stakeholders and how these are positioned on their websites. Conceptual thinking about employability at the institutional level might lead to employability strategies and to learning and teaching initiatives that prompt a pedagogical shift towards processual approaches and shared responsibility between institutions and students. This will most likely involve career services staff in the co-delivery of programs alongside discipline educators, as they seek to embed both the functional and the cognitive aspects of employability development.

We acknowledge that whilst institutional websites are an important mode of communication, they represent only one vehicle of communication, and further examples of employability development are undoubtedly hidden behind password-protected institutional sites. We also acknowledge that terms such as employability and graduate attributes vary between countries. This was mitigated by the inclusion of multiple terms as part of the search

strategy, informed by authors from each of the countries studied. Further, our study focused on research-intensive universities, and our findings cannot be generalized to institutions that are not research intensive. Further research might expand the population to other university groupings to determine whether different employability development approaches apply, whether new models emerge, and/or whether further insight into processual approaches can be gained.

Our findings illustrate that the three models proposed by Farenga and Quinlan are manifest in an international population of research-intensive universities as reported here. In addition, we identified a fourth model that represented a transition between Hands off and Portfolio; this was termed Non-embedded. We noted geographical differences in the dominant model used. These differences appear to reflect international differences in higher education and broader economic policy and structure; future research might seek to clarify these distinctions. By aligning the models of employability development with the three approaches devised by Holmes (2013), we were able to show that the strategy utilized by universities to develop employability are mostly possessional or positional; we saw limited evidence of the processual approach.

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