

Preparing graduates for work readiness

Graduate work readiness and employability: an overview of the changing landscape

This special issue represents a continuation of one of the themes from the International Conference on Human Capital held at Taylor's University in Subang Jaya, Malaysia in November 2018. The original call for papers for the first special issue on this topic published last year welcomed contributions that would enhance the extant literature by analyzing experiences from different countries and contrasting stakeholder perspectives on the transition from education to work, at the same time providing insights into human capital formation to meet future needs and ease the transition to Industry 4.0. In that special issue, we provided an overview of graduate work readiness (GWR) and proposed an agenda for further research (Winterton and Turner, 2019). We suggested three principles that should drive future work in this area:

- (1) Examining specific occupations and sectors rather than treating GWR as a homogeneous phenomenon;
- (2) Explore and explain similarities and differences in stakeholder perspectives to promote common understanding and
- (3) Explicitly address the specificities of the country context to ensure recommendations are fit for purpose.

These three principles are expected to remain relevant in the short-term, even though the world has changed, and continues to change, as the effects of the COVID-19 pandemic permeate through the labor market. There is, however, an inevitability that these principles will require reassessment, which is why we anticipate issuing a call for papers next year for another special issue of *Education + Training* to be published in 2022 on GWR and employability issues, reflecting the altered context and with an expanded agenda. The pandemic and associated contraction of the world economy does not diminish the relevance of graduate employability, but it does represent a set of unprecedented challenges: some are predictable, but others will only emerge as economies begin to recover. One of the difficulties of analyzing what is happening, let alone forecasting what might happen to graduate labor markets, is the over-layering of the effects of the pandemic on longer run changes that have been associated with patterns of restructuring in recent decades (Winterton and Forde, 2013). Each of the following factors has important implications for employability and GWR and will be considered in more detail below:

- (1) Economic contraction directly associated with the COVID-19 pandemic;
- (2) Continuation of the global shift from North to South and West to East;
- (3) Adoption of disruptive technologies with Industry 4.0 and
- (4) Profound restructuring associated with each of the above.

The first and most obvious effect of the economic contraction is on employment, and with reduced job opportunities, concerns of graduate over-supply to economies that are not generating sufficient jobs requiring graduate competencies are likely to increase. It is beyond the remit of this introductory overview to forecast the likely scale of the contraction and any forecasts at this stage are highly speculative, but it is clear that the economic impact to date



has already surpassed that of the 2008 Global Financial Crisis (GFC), and the final impact is likely to be of the order of the contraction of the inter-war years, i.e. the Great Depression. The possibility that we may be worried about graduate employability when there are no jobs that need graduates demonstrates the risk of regarding employability in its “hollowed out” supply-side version (Winterton and Haworth, 2013) and reinforces the need for a multi-dimensional approach that also includes labor market demand (McQuaid and Lindsay, 2005).

If graduate job opportunities are greatly diminished, then graduates must either compete for jobs for which they are over-qualified, exacerbating the problem of skill under-utilization reported elsewhere (Boxall *et al.*, 2019; Payne, 2012; Quintini, 2011) or stay in higher education longer in the hope that entering a more buoyant labor market with a master qualification might improve their chances of employment (Wakeling and Laurison, 2017). Irrespective of whether individuals defer labor market entry, a shortage of graduate jobs is likely also to accentuate the disadvantage of working-class graduates since those from more privileged backgrounds can better deploy social capital (Batistic and Tymon, 2017) and are more likely to use nepotism to gain an advantage in the labor market (Abrahams, 2017). Tomlinson’s (2017) reconceptualization of graduate employability is a promising approach to enhancing graduates’ transition to, and progression within, the labor market and offers a helpful framework that is supported by recent empirical studies (Blackmore *et al.*, 2017; Teng *et al.*, 2019).

Global shift, the term first used by Dicken in 1986 to describe globalization, the ascendancy of Brazil, Russia, India and China, and the growing influence of developing countries in South East Asia has continued to transform the world economy (Dicken, 2015). The current pandemic is disrupting the growth of all economies, but it is unlikely to halt the growing importance of the global South and East Asia relative to the West. Over the past 40 years, global supply chains have become much more extensive and integrated, and jobs have moved from the US and Europe to the newly industrialized countries, so the next generation of graduates will be more likely to work overseas than their predecessors. To survive in the global marketplace, graduates will need “international” competencies that we elaborate using the classic four dimensions of competence: cognitive competencies; functional competencies; social competencies and meta-competencies (Winterton, 2009). Functional competencies like managing logistics and supply chains and IT skills associated with remote working and managing at a distance are obvious examples, as are language skills, although the languages most needed might be Mandarin, Portuguese and Spanish, rather than French or German, for those who are already fluent in English. Social competencies will extend to cultural sensitivity and ability to adapt to societies that are far more traditional, hierarchical and collectivist than the West and where ethnicity, religion and family play a major role. These functional and social competencies must be underpinned by cognitive competencies that will ensure nuance in use of language and deeper understanding of cultures and institutions. Finally, graduates entering global markets will need over-arching meta-competencies like learning to learn and coping with uncertainty, as well as the “robustness” to cope with the post-pandemic variances in climates and cuisine.

In the 2019 special issue, we noted that new disruptive technologies at the heart of I4.0 will automate many routine jobs and that artificial intelligence (AI) is enabling increasingly complex cognitive tasks to be computerized (Brynjolfsson and McAfee, 2015). Technological changes were widely expected to have a significant net destructive impact on employment (Frey and Osborne, 2013; WEF, 2016) and there is no reason to assume that this potential to eliminate jobs will be attenuated, even if it is temporarily delayed. There will be jobs created with the new technologies, but we can predict major skill mismatches in the existing workforce. While recent graduates are arguably more likely to have the requisite skill sets, the pace of technology adoption and the willingness of educational establishments to bridge the skills gap will determine the rate of a young person’s skill obsolescence. In addition to

technical knowledge and skills, meta-competencies like learning to learn and research skills can be expected to take on greater significance as disruptive technologies are adopted.

The contraction of the world economy caused by the pandemic and responses to it, continuing global shift, and the adoption of new technologies are necessitating and facilitating an unprecedented level of restructuring, far greater than seen with the oil shocks of the 1970s or even the 2008 GFC. Sectors like hospitality and tourism have been particularly affected by the lockdown adopted in most countries, and many enterprises will not survive. The closure of nonessential (non-food) retail has exacerbated a trend where high street names have begun to disappear, accelerating the trend toward increased online product searches, shopping and consumption (Turner and Gardner, 2019). The automobile sector has also been adversely affected, causing extensive lay-offs and risk of plant closures. With restrictions on international travel, holiday companies and airlines have downsized or disappeared, British Airways announcing 12,000 job losses (29% of the global workforce) at the end of April (Neate, 2020). The repercussions of the dramatic reduction in air travel have already been felt in the aerospace sector, and in May, Airbus announced plans to axe up to 10,000 jobs worldwide (10%) and Rolls Royce announced 9,000 jobs (17%) would be lost from its civil aero-engines division (Sweeney, 2020; Tovey, 2020). The knock-on effects will be felt throughout the complex aerospace component supply chain, so the total job losses will be far higher. Reduced travel was one factor in the downturn in oil demand, bringing prices below break-even for production companies and in June 2020, having paid a big dividend to shareholders, British Petroleum announced the intention to shed 10,000 jobs (15%), (Chapman, 2020). These high-profile cases in the COVID-19 context are contributing to an expected “tsunami of job losses” and a new vocabulary with terms like “zombie companies” (dead in all but name), “phoenixing” (firms that shed liabilities by failing then reincarnate) and “lifeboating” (pre-emptive acquisition before anticipated failure).

Fewer job opportunities may encourage more graduates to work in the family business, if one still exists or become entrepreneurs and launch their own start-ups. In recent years, many universities around the world have introduced entrepreneurial thinking (entrepreneurialism) into the curriculum and established incubators for start-ups, where mentors guide students in developing business plans and pitching to potential investors. Such initiatives are likely to become increasingly important in the post-COVID economy, but there is a challenge in trying to develop entrepreneurship skills, which are highly dependent on social competencies. There is a serious risk for countries like the UK that has already shed so much manufacturing and is now dominated by service sector enterprises, of becoming a “cappuccino economy”, more froth than substance, the dangers of which have been starkly highlighted during the pandemic with the contraction of the hospitality sector.

Returning to the three principles for future research established earlier, these need to be re-interpreted and discussed. First, exploring GWR in relation to specific occupations and sectors is acutely necessary given how uneven is the sectoral impact of the contraction and adoption of disruptive technologies. The airline and aerospace sectors are expected to take years to recover and it is likely that the online meetings that have been necessitated with a 90% reduction in air travel are likely to become a permanent feature, as companies see the benefits of reducing their operational expenditure and carbon footprint. What does GWR look like for graduates of aerospace engineering? What will the effects of AI on the accountancy profession mean for GWR of accounting students? Second, having previously emphasized the need to promote a common understanding of GWR between different stakeholders, their perspectives may diverge even further in the new context. Some educationalists may argue for abandoning the employability imperative so enthusiastically embraced by university leaders and call for a return to value-based education for life and citizenship (Young, 2008). Third, given broad differences in approaches to GWR between America, Europe and Japan (Winterton, 2018), there is a need for more detailed research into specific country differences

and the reasons for them. Are variations within Europe, Asia and the Americas less than between these regions? Do stakeholders have similar perspectives in different countries or are differences between stakeholders less significant than country differences? How are issues of employability and GWR being addressed in different countries as the pandemic begins to wane and how is this affected by country-specific context?

The contribution of this special issue

The articles included in this special issue collectively provide insight into the three principles which we discussed earlier. Articles are drawn from across Europe, Asia, the Middle East and Africa provide perspective, reflection and areas for further consideration of GWR in different contexts as we attempt to provide solutions to the graduate skills gap and young peoples' preparedness for the world of work.

The paper by Belwal, Belwal, Sufian and Al Badi on "Project-based learning (PBL): outcomes of students' engagement in an external consultancy project in Oman" elaborates on the benefits students gain from participating in an external research and consultancy project. Using a qualitative research approach, the paper revealed that through the project students enhanced their behavioral skills and their abilities to conduct research. The research implies that curriculum engagement with PBL engenders self-learning and better prepares learners for real-life scenarios.

The paper by Daniel and Almeida on "The role of junior enterprises in the development of students' entrepreneurial skills" examines the impact of Junior Enterprises (JEs) on the entrepreneurial attitudes and intentions of engineering students in higher education. Using a quantitative approach, the research demonstrated that students enrolled in JEs exhibited higher levels of entrepreneurial intention, attitude toward entrepreneurial behaviors, perceived behavioral control and social norms. The impact was higher among engineering students when compared to social science students. The findings suggest the need to encourage extra-curricular activities as a platform to develop entrepreneurial skills and competencies.

The paper by Hack-Polay on "Are graduates as good as they think? A discussion of overconfidence among graduates and its impact on employability" investigates the relationship between graduate overconfidence in numeracy and employability. Through a critical literature review, the research reveals a significant relationship between the level of qualification and overstatement of numerical abilities. The findings suggest the need for further reflection on educational curricula, government skills strategy and organizational development of employees.

The paper by Phan, Yapa and Nguyen on "Accounting graduate readiness for work: a case study of South East Asia" analyses the skills of accounting graduates against employer expectations. Using a mixed methodology, the research indicates a wider adoption of professional accountancy qualifications and the need to equip graduates with project-based and work-integrated training to address the employer expectation gap. The findings suggest a disparity between accounting education and employer requirements in South East Asia.

The paper by Kuráth and Sipos on "Competencies and success measured by net income among Hungarian HE graduates" examines the impact of six identified competence areas on new graduates' success in the labor market as measured by salary. Using a quantitative study, the research indicates that there is a relationship between socio-emotional, generic and specialized competencies and graduate success in the labor market. The findings indicate the need for higher education providers to embed more soft-competence development into the curricula as a means of enhancing graduate employability.

The paper by Chiou on "The impact of situated learning activities on technology university students' learning outcome" assesses the impact of 3D virtual reality situated activity, preschool reality and the lecture-teaching method, on student learning outcomes.

Using an experimental approach, the research revealed that auxiliary learning of 3DVR was perceived as better than real-life, and that situational learning activities enhanced participant performance. The findings suggest that applying 3DVR to the classroom experience can enhance the transfer of knowledge and problem solving among participants.

The paper by Pitan and Muller on “Student perspectives on employability development in higher education in South Africa” analyses the levels of support provided by selected South African universities for the development of employability skills and the role this support plays in student’s employability. Using a quantitative approach, the research revealed that the universities only engaged with two of the six employability development opportunities. The curriculum, personal development planning, career development learning and work experience had the most influence, whereas real-world activities and extra-curricular activities were found not to influence students’ perceived employability. The findings underline the importance of educational establishments connecting theory and practice to develop work-ready graduates.

The paper by Rodríguez Gomez, Lopez Perez, Garde Sánchez and Rodríguez Ariza on “Factors in the acquisition of ethical training” examines the role a specific university-led training approach, founded on practical methodologies and students’ personal characteristics, had on ethical decision-making. Using a quantitative approach, the research revealed that knowledge was an explanatory variable with gender and empathy reinforcing the learning. The findings illustrate the importance of ethical training and the need for education providers to consider students’ personal characteristics when devising training methodologies.

The paper by Urquía-Grande and Pérez Estébanez on “Bridging the gaps between higher education and the business world: internships in a faculty of economics and business” examines the expectations gap between employers, academic supervisors and students in the context of internships. Using a quantitative approach, the research showed that while students felt that internships were useful, it was transversal skills, more than cognitive skills which were learned in their respective program of study as a whole. Employers felt interns had strong social and adaptability skills, but expected them to have better creativity and cognitive skills and academic supervisors valued students’ written skills, as opposed to their transversal skills. The findings underline the gaps between identified stakeholders’ perspectives and indicate the importance of strengthening relationships between academia and business, of internship programs meeting the expectations of all stakeholders, and of developing cognitive, transversal, professional and social skills among interns.

This collection of articles offers some initial reflections on how GWR as a concept presents a different complexity in specific occupations and sectors, according to various stakeholder perspectives, and in different country contexts. We invite researchers to dig deeper, systematically to unearth more evidence and, importantly, to make sense of the patterns.

Jason Turner

Asia Pacific Institute of Information Technology, Kuala Lumpur, Malaysia, and

Jonathan Winterton

Work and Employment Relations Division, Leeds University Business School, Leeds, UK

References

- Abrahams, J. (2017), “Honourable mobility or shameless entitlement? Habitus and graduate employment”, *British Journal of Sociology of Education*, Vol. 38 No. 5, pp. 625-640.

- Batistic, S. and Tymon, A. (2017), "Networking behaviour, graduate employment: a social capital perspective", *Education + Training*, Vol. 59 No. 4, pp. 374-388.
- Blackmore, J., Gribble, C. and Rahimi, M. (2017), "International education, the formation of capital and graduate employment: Chinese accounting graduates' experiences of the Australian labour market", *Critical Studies in Education*, Vol. 58 No. 1, pp. 69-88.
- Boxall, P., Huo, M.-L. and Winterton, J. (2019), "How do workers benefit from skill utilisation and how can their opportunities to benefit be enhanced?", *Journal of Industrial Relations*, Vol. 61 No. 5, pp. 704-725.
- Brynjolfsson, E. and McAfee, A. (2015), *The Second Machine Age. Work, Progress and Prosperity in a Time of Brilliant Technologies*, W.W. Norton & Company, New York, NY.
- Chapman, B. (2020), "Coronavirus: BP to cut 10,000 jobs worldwide due to pandemic", *The Independent*, available at: <https://www.independent.co.uk/news/business/news/bp-job-cuts-coronavirus-oil-gas-impact-a9554341.html> (accessed 8 June 2020).
- Dicken, P. (2015), *Global Shift. Mapping the Changing Contours of the World Economy*, 7th ed., first edition 1986, Sage, Los Angeles, CA.
- Frey, C.B. and Osborne, M.A. (2013), "The future of employment: how susceptible are jobs to computerisation?", Oxford Martin School Working paper, Oxford University, Oxford.
- McQuaid, R.W. and Lindsay, C. (2005), "The concept of employability", *Urban Studies*, Vol. 42 No. 2, pp. 197-291.
- Neate, R. (2020), "British Airways plans to make up to 12,000 staff redundant", *The Guardian*, available at: <https://www.theguardian.com/business/2020/apr/28/british-airways-plans-to-make-up-to-12000-staff-redundant> (accessed 28 April 2020).
- Payne, J. (2012), "Fronting up to skills utilisation: what can we learn from Scotland's skills utilisation projects?", *Policy Studies*, Vol. 33 No. 5, pp. 419-438.
- Quintini, G. (2011), *Over-qualified or Under-skilled: A Review of Existing Literature. Report for the Organisation for Economic Co-operation and Development (OECD)*, Report no. 121, September, OECD Publishing, Paris.
- Sweney, M. (2020), "Rolls-Royce to cut 9,000 jobs as Covid-19 takes toll on airlines", *The Guardian*, available at: <https://www.theguardian.com/business/2020/may/20/rolls-royce-to-cut-9000-jobs-worldwide-as-covid-19-takes-toll> (accessed 20 May 2020).
- Teng, W., Ma, C., Pahlevansharif, S. and Turner, J.J. (2019), "Graduate readiness for the employment market of the 4th industrial revolution: the development of soft employability skills", *Education + Training*, Vol. 61 No. 5, pp. 590-604.
- Tomlinson, M. (2017), "Forms of graduate capital and their relationship to graduate employability", *Education + Training*, Vol. 59 No. 4, pp. 338-352.
- Tovey, A. (2020), "Airbus set to axe 10,000 jobs", *The Telegraph*, available at: <https://www.telegraph.co.uk/business/2020/05/13/airbus-set-axe-10000-jobs/> (accessed 13 May 2020).
- Turner, J.J. and Gardner, T. (2019), "The role of the service encounter as a means of reversing further high Street retail decline", in Musso, F. and Druica, E. (Eds), *Modern Retailing Techniques for Optimal Consumer Engagement and Experiences*, IGI Global, Hershey, PA.
- Wakeling, P. and Laurison, D. (2017), "Are postgraduate qualifications the 'new Frontier of social mobility'?", *British Journal of Sociology*, Vol. 68 No. 3, pp. 533-555.
- WEF (2016), *The Future of Jobs: Employment, Skills and Workforce Strategy for the Fourth Industrial Revolution*, World Economic Forum, Geneva.
- Winterton, J. (2009), "Competence across Europe: highest common factor or lowest common denominator?", *Journal of European Industrial Training*, Vol. 33 Nos 8/9, pp. 681-700.
- Winterton, J. (2018), "European, American and Japanese perspectives on work readiness: implications for the Asia pacific region", in Dhakal, S., Prikshat, V., Nankervis, A. and Burgess, J. (Eds),

Winterton, J. and Forde, C. (2013), "L'Europe en crise: vers un modèle heuristique de la restructuration", in Le Deist, F. (Ed.), *Restructurations et santé au travail: regards pluridisciplinaires*, Octarès, Toulouse, pp. 27-46.

Winterton, J. and Haworth, N. (2013), "Employability", in Arrowsmith, J. and Pulignano, V. (Eds), *The Transformation of Employment Relations in Europe: Institutions and Outcomes in the Age of Globalisation*, Routledge, London, pp. 166-183.

Winterton, J. and Turner, J.J. (2019), "Preparing graduates for work readiness: an overview and agenda", *Education + Training*, Vol. 61 No. 5, pp. 536-551.

Young, M. (2008), *Bringing Knowledge Back in. From Social Constructivism to Social Realism in the Sociology of Education*, Routledge, Abingdon.