

The evolution of learning: Post-pedagogical lessons for the future university

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Abstract

This article offers a post-pedagogical image of universities. We explore two main purposes of university education: creating an educated public and preparing learners for their future careers. This exploration draws on philosophers Barnett, MacIntyre and Nussbaum. We then utilise a series of reports from The Foundation for Young Australians to offer insights into the changing nature of society, technology, and worklife. The evolution of models or theories of learning sets the scene for the framework for how to structure the future university—a post-pedagogical learning institution in which educators are learning specialists, learners are engaged in meaningful and critical thinking, learning and acting.

Key words

higher education, learning, philosophy

Introduction

The task of an adequate philosophy of higher education ... is not merely to understand the university or even to defend it but to change it.

(Barnett 2017, p. 87)

In his 2017 article entitled *Constructing the university: Towards a social philosophy of higher education*, Ronald Barnett makes what he terms a strategic and a substantive

claim. The strategic claim is that the literature in higher education presently lacks a *philosophy of higher education*. The substantive claim is that any such philosophy should be concerned with the real world in which higher education exists. For Barnett, this concern with the real world entails a *social project* that is not merely descriptive or explanatory, but has a strong activist dimension; that an adequate philosophy of higher education should aim to change higher education.

In this paper, we attempt to take Barnett's substantive claim seriously with respect to the educative endeavour of universities. We use empirically engaged, philosophical argument to provide some guiding principles for how to change higher education. We both have theoretical and practical interests. Parsell, as a philosopher and Associate Dean of Learning and Teaching, is interested in the purpose of university and how universities should be structured. Chinchin, as an educational researcher and practitioner, is interested in the evolution of the nature of learning and how we should be curating learning. Here we bring our insights together to offer thoughts on the future university. We do so at a high level of abstraction. We look to the changing nature of society, technology and learning to provide a *framework* for how to structure the future university. Our analysis presupposes a dual purpose for university education: preparing learners for their future careers and creating an educated population.¹ In this paper, we do not argue for this position, but rather ask how university should be structured to achieve these purposes.

Our paper has four sections. In the first two sections we look at two main purposes of university education: creating an educated public and preparing learners for their future careers. In section one we look at what is required to achieve the first aim, drawing on the work of Alasdair MacIntyre and Martha Nussbaum. In section two, we ask: are modern universities achieving the second aim? In this section, we briefly discuss how technology is driving changes in the knowledge and skills required to lead a productive career. We ask whether changes to society have resulted in changes to how we learn. Our focus here is on the evolution of models or theories of learning. In section three, we use the discussion in the previous section to examine the appropriate focus for the future university. In the final section, we draw

¹ Universities are typically seen as having a tripartite purpose: research, education and community engagement. We are only concerned with the educative endeavour and do not discuss research or community engagement, although our framework can be adapted to those domains. Additionally, we only focus on the two aspects of university education previously highlighted. We consider these to be central and essential aims of higher education. We see no reason to suppose that we should not achieve other aims besides these and our framework does not preclude such further aims.

conclusions from the previous three sections together and present our framework for how university education should be structured.

I.

In her 2002 defence of a liberal arts education, Nussbaum argues that higher education should be more than 'simply preparation for a career' (p. 292). For Nussbaum, higher education is about enriching life and about being an engaged citizen in a rapidly changing and highly interconnected world. Similarly, MacIntyre sees a central purpose of university is creating an educated public (MacIntyre 1987, 1990). MacIntyre is renowned for his pessimism concerning the prospects of creating an educated public (see especially MacIntyre & Dunne, 2002), while Nussbaum finds this pessimism to be 'quite wrong' (2002, p. 294). But both agree that this responsibility to civic life entails teaching learners to think for themselves.

One way to understand MacIntyre's pessimism about the prospects of creating an educated public is through a tension between this aim of higher education and the aim of preparing learners for their future careers. Modern western society is an advanced capitalist and technologically-driven society that depends on highly specialised citizens for its continued existence. Fulfilling the aim of preparing learners for their future careers means providing them with specialised knowledge and skills. This in turn tends to crowd the curriculum, forcing out the study of general issues (Lamb, Maire & Doecke 2017). But MacIntyre sees such general study as critical to the development of an educated public. More fully, for an educated public three requirements need to be met. First, that learners have the opportunity to test their thoughts in rational debate with others. Critically, these others need to be educated. Second, this community of educated people needs to have some shared view of what constitutes the common good and what constitutes rational debate. That is, they need to have a shared understanding of how to assess arguments about the common good. Third, and most controversially, the community of educated others need to share a body of canonical text. But the second and third requirements are unlikely to be met by contemporary (western) universities. Macallister (2016) has recently argued the structure of modern society forces universities to provide specialised skills and knowledge, thereby forcing general education out:

As the university curriculum diversified to reflect the modern need for specialist occupations in the industrial age, so opportunity for rational debate

about common moral philosophical texts and social issues became less and less frequent. (Macallister 2016, p. 527)

This over-crowding jeopardises the necessary foundation for an educated public, and raises the spectre of what Clifford Geertz provocatively termed creating 'a race of highly trained barbarians' (1983, p. 160).

As already noted, Nussbaum does not share MacIntyre's pessimism. Moreover, her view of the purpose of university goes beyond MacIntyre's aim of creating an educated public. Her concern is creating thinking individuals who can be active democratic citizens. She sees university as training 'Socratic citizens who are capable of thinking for themselves' (Nussbaum 2002, p. 302). Importantly, she frames this account of the purpose of university against a rapidly changing society, with universities 'shaping future citizens in an age of cultural diversity and increasing internationalization' (p. 291) and in which democracy is necessarily pluralistic. In such an environment Nussbaum (2002) argues universities need to 'build a richer network of human connections' (p. 291). Such connection is needed to create citizens who can see beyond their local condition to recognise and respect global issues and challenges. We will return to the challenges of globalisation in the next section.

Nussbaum has offered a vigorous and sustained defence of the need for the humanities in the modern university (see especially Nussbaum 2010). Central to this defence is a novel form of critical engagement she sees as necessary for grounding the ability to think for oneself: narrative imagination. This is the ability to identify with a different person, to see the world from another person's perspective:

This means the ability to think what it might be like to be in the shoes of a person different from oneself, to be an intelligent reader of that person's story, and to understand the emotions and wishes and desires that someone so placed might have. (Nussbaum 2002, p. 299)

She combines this with the ability to critically examine oneself and one's traditions as well as the capacity to see oneself as a person 'bound to all other human beings by ties of recognition and concern' (p. 295). Similarly, MacIntyre (1990) argues that thinking for oneself involves three things: (i) the capacity to evaluate actions; (ii) the ability to look beyond our immediate desires; and, (iii) the power to imagine a future that is different from the present.

The similarities between Nussbaum and MacIntyre's account of thinking for oneself are striking. Indeed, despite the differences in the more general position defended by both, these requirements in thinking for oneself can be fruitfully combined:

1. **Critical Thinking:** This involves critical thinking in a broad sense, the sense familiar from Socrates' demand that we live an examined life. It is the ability to engage in reasoned debate about one's actions (MacIntyre), oneself and one's place in the world (Nussbaum).
2. **Critical Looking:** This involves the capacity to look beyond one's present circumstances. To move beyond both one's immediate desires (MacIntyre) and one's immediate situation (Nussbaum). To see yourself not as from some particular group or region, but as fundamentally human, and hence interdependent.
3. **Critical Imagination:** This involves the power to imagine central aspects of oneself or one's situation as critically different. It is the power to imagine a different future (MacIntyre) or a different self (Nussbaum).

We take these to be the requirements for creating responsible citizenry; an educated public which is democratically active and engaged.

Barnett (2017) is generally positive about MacIntyre and Nussbaum's accounts of higher education.² He sees particular strengths in MacIntyre's insistence on constrained disagreement as central to a university and his recognition of universities as institutions with long traditions and unique internal goods. Barnett sees strengths in Nussbaum's defence of the place of the humanities in contemporary university, along with how university advances both critical thinking and society. More generally, Barnett (2017) is positive about views of universities that see them as:

a space of 'dissensus', an 'ideal speech situation', in which 'rival and antagonistic views' were proffered 'without condition', and so are able freely 'to conduct their intellectual and moral warfare'. In the process, the 'internal goods' of the university would be protected and, in turn, critical thinking and democracy would be enhanced. (Barnett 2017, p. 84)

² Barnett (2017) spends quite a bit of time on MacIntyre as a prototypical example of 'a philosopher who writes *on* higher education rather than one whose writings have implications *for* higher education' (p. 84). He sees Nussbaum as falling in the same class, but spends less time rehearsing her position.

But he argues that while such an account of the purpose of university is necessary, it is not sufficient. Barnett is concerned that this account of the university fails to take the real world in which the university is embedded sufficiently seriously, that it fails to adequately acknowledge the underlying force—the ‘structural mechanics’ (p. 84)—driving change in the university. An alternative way of expressing the same issue is in terms of narrow focus. Universities are certainly valuable for cultivating people that are able to think for themselves, both at an individual and a civic level, for creating an educated public (MacIntyre) or an engaged population (Nussbaum). But universities need to do more than this as their learners need to develop professional as well as civic skills. It is to this professional level, to career or enterprise skills, that we now move.

II.

It is our ability to learn that provides humans with increased capability, flexibility, and adaptability in our environment (Ormrod 2016). And while arguably the rate and types of change may alter, change is a constant in human experience. In some instances, the capacity to systematically, intuitively or habitually respond to contextual change rests with what we have already developed through prior learning; at other times we need to engage in a more intentional learning activity. It is this unique ability to seek out intentional learning that provides humans with the capacity to either adapt reactively, by fitting in with physical and social worlds, or proactively, by creating and shaping these worlds (Kolb, 2015). Learning itself thus becomes the most important 21st century skill within and beyond educational and work environments (Kuhn 2016). In this section, we use research conducted by The Foundation for Young Australians (FYA) on the changing nature of work to see if universities are fit for the purpose of preparing learners for their future careers.

In 2015, the FYA launched the *New Work Order* research series to analyse the impact that disruptions to work have on the lives of young Australians. The series presently has six reports with the most recent published in June 2018. The first four reports highlight significant change in the employment landscape for young Australians: ‘research has revealed that traditional, linear career trajectories are rapidly becoming an antiquated notion’ (FYA 2017, p. 3). Rather than a linear career, young people are likely to experience a career portfolio covering well over ten jobs across what would usually be recognised as five distinct careers. These findings challenge how universities structure their programs, problematising usual programs of study, and point to the urgent need for enterprise skills that can be utilised across multiple

careers, life-long and life-wide learning skills to enable learners to develop specific jobs skills while working, and entrepreneurial skills needed to curate one's own careers. But it is the fifth report that is the most germane to the present discussion.

The New Work Smarts (July 2017) attempts to predict the nature of work in 2030. It does this from a strong evidential basis: a big data set of over 20 billion work hours untaken by 12 million Australian workers in a year. The report highlights three factors that will impact every job in Australia by 2030: automation, globalisation and flexibility. These factors will drive (at least) two substantial changes: an increase in the importance of critical and creative thinking; and, an increase in the need to continuously learn. Technology generally and automation particularly leads a movement away from routine tasks to critical and creative skills. Moreover, jobs themselves will be continually evolving so staff will need to spend significant work time learning (FYA 2017, p. 3). If educational institutions are to prepare learners for this future they will need to 'become the smart learning partners of these lifelong learners' (FYA 2017, p. 3). Previously, education was able to focus on delivering core technical skills to allow learners to enter the workforce. These technical skills could then be broadened with skills and experience acquired in the workplace (FYA 2017). This approach is, however, unavailable to most professionals in the contemporary workplace. FYA (2017) argues that young people should now focus on three types of 'smarts':

- **Smart learning:** Learning every day to continuously acquire the skills demanded in future work
- **Smart thinking:** Coupling knowledge and abilities from science, technology, engineering and mathematics with communication and problem solving skills; and,
- **Smart doing:** The ability to work both independently and flexibly.

According to FYA '[c]ontinuous learning will be part of our everyday engagement in work. Learning on the job will require us all to constantly respond to new information and new technology when making decisions' (p. 7).

Against this backdrop of continual change, many universities remain fixated on an authoritative, transmission model of education. Barr and Tagg (1995) argued against the perspective that the educators' role is to impart information, understanding, and skill through systematic instruction (teaching or lecturing). They argued that this

confuses the means (teaching) with the ends (learning). Teaching does not necessarily create learning (Mathieson 2015) nor are teaching and learning the same phenomenon (Illeris 2007). Thus there has been a focus more recently on the phenomenon of learning. While the growing call for a shift in the focus in education from teaching to learning echoes various writers throughout the 20th century, including Dewey (1938), Freire (1974) and Hase and Kenyon (2001), it is not without its critics.

Gert Biesta (2005, 2009, 2015) has been a vocal critic of what he calls ‘learnification’ or the privileging of learning over education. Biesta argues that this privileging should be resisted as learning is, in his view, individualistic and (implicitly) undirected, whereas education is both relational and purposeful. Moreover, he argues that learning merely denotes a process and activities, but lacks any reference to content and direction. Biesta (2005, 2009, 2015) is critical of the ‘language of learning’. He uses this phrase broadly to identify problems with both the concept of learning and how it is contextualised in research, policy and practice (see especially 2015). He has repeatedly argued that the ‘language of learning’ is associated with new theories of learning, a silent explosion of learning, post-modernism, and the rise of neo-liberalism and the accompanying erosion of the welfare state (Biesta 2005, 2009, 2015). He is highly critical of learnification as a commodification of education. More specifically, learnification promotes education as a purely economic transaction with the learner being the consumer, the educational institution the provider, and education itself a commodity. His response to the language of learning is to draw on what he sees as the ‘real’ purpose of education, a purpose that balances qualification, socialisation, and subjectification (see Biesta 2015, for further details). While we are sensitive to the broader social issues that Biesta identifies—especially, the rise of neo-liberalism and the accompanying erosion of the welfare state—we believe he ultimately conflates the language used for political and economic agendas with the language used for educative purposes. That is, while we believe Biesta is right to argue against his notion of the new language of learning, we deny that his arguments apply to learning in and of itself.

We agree with Biesta that the new language of learning used in policy and marketing documents can be problematic. Policy and marketing documents are often written with a political and economic agenda, rather than with a clear focus on educative purpose. Biesta has quoted the Commission of the European Communities (1998 p. 9) as an example of such politicisation of the language of learning in a number of places (see, for example, Biesta 2005, 2009 and 2016):

In a high-technology knowledge society ... learners must become proactive and more autonomous, prepared to renew their knowledge continuously and to respond constructively to changing constellations of problems and contexts. The teacher's role becomes one of accompaniment, facilitation, mentoring, support and guidance in the service of learners' own efforts to access, use and ultimately create knowledge. (Commission of the European Communities 1998 p. 9)

This language may be seen as clearly linking learning with a broad cultural movement associated with the knowledge economy, along with the pervasive use of information and communication technology and, thereby, has an intrinsic political or economic subtext. Indeed, policy and marketing documents are by their very nature developed under the overt or covert influence of particular political or economic schools of thought. This specific example, and many others that Biesta finds objectionable, clearly entail a neo-liberal or economic rationalist position. We find such 'language of learning' equally problematic: we accept such use distorts and oversimplifies the use of educational terms to meet political and economic agendas. We do not, however, believe that a focus on learning in educational contexts necessarily implies such political or economic distortions.³

Our principle concern is that Biesta's critique of learnification can seem to imply a simplistic account of learning. In line with the political argument outlined above, he argues that learnification views learning as an economic exchange in order to meet the needs of the learner. In fact, this view of learning is further narrowed as 'meeting the needs of the learner' (Biesta 2005, p. 54) and to meeting the conscious needs of the learner. This seems to imply a relatively unnuanced and unsophisticated view of both the learner and the educator, and, by extension, of learning itself. On our account of education and learning, it is the educator's role to identify what the learner may need to explore in order to meet the requirements of the topic, the subject, the course, and the qualification, together with the development of the acumen to be both competent and capable in their real world. It is clearly inconsistent for a learner to simultaneously be entering an area where they lack knowledge and to know the detailed specifics of what they need to learn.

³ Some care is needed here. Education is necessarily a political institution and has been recognised as such in the Western tradition since at least Plato included education as a central pillar of the ideal society in the *Republic*. Thus any discussion of educative practice or educational philosophy will likely carry a political dimension, but it need not be of the form that Biesta finds objectionable.

In sum, while we accept that Biesta is right to be critical of his view of the ‘new language of learning’ by positioning it within the more recent confluence of social, political, and economic reflections in policy and marketing documents, we believe he fails to acknowledge that learning has been at the centre of the work of educators for thousands of years. This is true since at least the inception of formal education in Egypt from 3000 BCE to 350 BCE (Tokuhama-Espinosa 2011). Formal education in ancient Egypt may have had an overtly social dimension, but the intention was certainly to learn something, for a purpose, and from someone. Given the ubiquity of advanced communication and information technologies in modern society, formal learning is no longer constrained to direct and limited knowledge transfer from an educator, but the purpose and directed nature of learning remains. Given this, a useful focus to address Biesta’s concerns is to clarify what we mean by learning, how it occurs, and the central role that educators play in its creation, refinement, and embedding through our expertise in learning, human change, content, and associated enabling activities. To this end, we will argue that the sophistication of teaching and education is dependent on the sophistication of understanding of learning itself. Put simply, the purpose of education is learning. Biesta (2015) seems to accept this as he acknowledges that he seeks to ‘also provide a number of arguments for suggesting that learning may not be the one and only option for teaching to aim for’ (p. 229). In fact, the centrality of learning as education’s purpose can be seen to apply to all three of Biesta’s domains of education: qualification, socialisation, and subjectification.

The broader issue of the connection between teaching (the means) and learning (the ends) is succinctly explained by Ramsden (2003): ‘The aim of teaching is simple: it is to make student learning possible’ (p. 7). It would follow from this view that expertise in aiding the learning of others is a prerequisite to competence in teaching. This view asserts that, just as expertise in helping others excel in running fast requires more than personal running speed, expertise in helping others excel in learning requires more than personal success in learning. Historically, however, university beliefs, customs, regulations and policies have implicitly made an assumption that personal success in learning ensures competence in helping others to excel in learning. As a result, there has to date been patchy demand for those in universities to have confirmed expertise in the nature, types, processes, causes and conditions of learning itself (Norton, Sonnemann & Cherastidtham 2013).

Another common implicit assumption is that the ability to create learning opportunities for others automatically arises from subject content expertise (Hattie &

Yates 2014). Focusing on what educators know emphasises where the educator is; not where the learner may be (Kolb & Kolb 2018). This educator-centric stance is a common characteristic of teaching-centred approaches in universities, a stance which easily fosters both intellectually arrogant educators and servile learners (Church & Samuelson 2017). While subject expertise may be an important area of expertise, it is not the only area that needs educator attention for effective learning. Learning is a phenomenon that is both complex and personalised (Bartle 2015; Säljö 2009). It integrates prior knowledge, experiences, sensory information, social interactions, working memory and schema development for long-term memory retention (Jarvis 2006; Siemens 2005; Sousa 2017). From a learner perspective, many things can go wrong along the way: inattention, distraction, emotional triggers, compromised working memory, competing priorities and pressures, unclear purpose and importance of learning content, cognitive overload, learning difficulties and disabilities, or life circumstances which interfere with or preclude learning (Bellert & Graham 2017; Ifenthaler 2015; Sweller Ayres & Kalyuga 2011). To respond to these types of issues, university educators need to develop a sophisticated understanding of learning.

Perhaps the most common barrier to learning in universities is the overuse of uninformed educator intuition without consideration of research on how learning occurs (Weinstein et al. 2019). Since the late 1800s, theories of learning utilised by universities primarily emanated from the discipline of psychology. Traditional learning theories all sit within, and are limited by, their own self-reinforcing ontological and epistemological sets of assumptions. While this integration may make 'tidy' theory, it does not necessarily lend itself easily to creating a responsive, expansive, and integrated understanding of learning—nor for responding to the increasingly heterogeneous set of learners who enter universities. Säljö (2009) argued, 'the challenges of the more anthropological, interactional, social, and sociocultural perspectives are now so obvious that the classical psychological interpretation of learning is under pressure' (p. 203). Perhaps it is time to loosen attachment to psychologically-informed learning theories, to see them as limited viewing lenses to be used where context best fits, and to discard them where they do not fit the context. We are then free to utilise the best fit-for-purpose approaches for the specific learning in which we are engaged.

The need to respond to increasing rates of change demands that attention must be placed on developing adaptive and flexible learning. This learning values currency, collaboration and knowledge sharing. It facilitates the integration of learning within

universities into the real and ever-changing world in which all learners reside (Davis, Evans & Hickey 2006; Evans-Greenwood, O'Leary & Williams 2015; Evans 2005; Siemens 2005). Lifelong learners require work-life learning that is authentic (Asikainen, Virtanen, Parpala & Lindblom-Ylänne 2013; Westera 2011), and builds both competence and capability (Blaschke 2012; Halsall, Powell & Snowden 2016; Hase 2011; Hase & Kenyon 2001). To optimise adaptive learning, learning specialists within the university need to synthesise research-informed and intuitive approaches (Horvath et al. 2017; Weinstein et al. 2019). Critical analysis is needed to ground theory-in-practice and to avoid being misled by common educational myths and assumptions, such as has occurred through distortion and overreach of neuroscientific findings (Dekker, Lee, Howard-Jones & Jolles 2012; Howard-Jones 2014; Sousa 2017).

Learning for self and others can be enhanced through a sophisticated meta-understanding of learning and how it occurs. It commences with reflection on our own understanding. As Wenger (2009, p. 214) argued, '[i]f we proceed without reflecting on our fundamental assumptions about the nature of learning, we run an increasing risk that our conceptions will have misleading ramifications'. Reflection is a key process in transforming our experience into learning. Schön (1987) argued for reflection on action, which leads to retrospective learning, and reflection in action which leads to concurrent learning. Imagining future options and reflecting on how each may be enacted leads to prospective learning (Beard & Wilson 2006). Reflexive thought fosters and adapts our intuitive understanding; how we see the world. Synthesis of these conceived reflections and felt reflexions coordinates our learning.

In this section, we have argued that learning is a fundamental human skill. Indeed, the ability to seek out intentional learning is arguably unique to humans. It has been a constant across human history and has only grown in importance. We have argued that learning is the most important skill of the 21st century due to the changing nature of work, and the changing structure and challenges faced by society. But universities have failed to keep pace. Universities have tended to remain stuck in an authoritative, transmission model of education. Further, focusing on learning as the primary goal of universities has been met with resistance, exemplified in this paper by Biesta. We have argued that this situation requires urgent attention, that universities need to shift their focus from teaching to learning, in better researched and more thorough ways. In the next section we turn to how this synthesis can specifically be applied to universities.

III.

Both Nussbaum and MacIntyre see the central purpose of university as creating an educated or critically engaged public. This demands citizens who have agency in their world. Hence higher education goes beyond the bounds of preparing graduates for careers alone. It needs to prepare graduates for a world that is increasingly unknown, unstable, variable, unpredictable, and rapidly changing. However, universities can no longer sit comfortably in well-established models of transmission. Prevailing social, political and economic changes demand the adaption of universities and require us to look beyond the established canons to collaborative and innovative ways of responding.

Cherry (2005) argued that we need to work in the 'white spaces' which form the blanks between the lines of known text. This allows us to see the assumptions of the fundamental paradigms, bring multiple perspectives, and invent new ways of addressing the issues we face—to imagine a different future (MacIntyre). Just as quantum theorists can benefit from flexibly switching between particle and wave perspectives, so too can educators benefit from flexibly switching between belief and inquiry perspectives. The key issue this article has identified is the dilemma universities currently face: whether to stay comfortable in teaching known beliefs and methods or to reposition ourselves more adaptively as learning specialists. This switch offers the promise of being part of learning processes that are characterised by 'resilience, energy, intellect, emotional intelligence, courage and imagination ... and to remain optimistically confused' (Cherry 2005, p. 319). This type of learning is built on curiosity, discovery and sharing (Anderson 2016). Doing so allows us more readily to develop critical thinking, critical looking and critical imagination.

Rather than delivering epistemological 'truths' via teaching, we need to curate learning experiences that support graduates to gain competence and capability in authentic and meaningful ways. The aim is to develop adaptive expertise rather than skills in memorisation and regurgitation (Dumont, Istance & Benavides 2010; Konst & Scheinin 2018). In this way we assist learners to think for themselves and utilise their own judgement. It is for these reasons that we propose that the focus of universities in the future should be firmly placed on learning. The focus on learning can move the scholarship of teaching beyond the epistemological dominance of conceptual belief to equally include the ontological, axiological and pragmatic foci. Universities can more fully embrace their identity as learning institutions. Educators within them can become learning specialists who develop expertise in learning,

human change processes, content, learning design, and whose focus is on curating adaptive learning based on the most current, powerful, and relevant information and practices available. Learners become respected as collaborators in the learning process in which they are involved.

This transition is not necessarily easy to achieve as ‘constructing learning partnerships requires unlearning our socialization as authority figures’ (Magolda 2014, p. 9). Hence university educators can become the smart learning partners to lifelong learners (FYA 2017). Robinson (2011) argued that this requires a movement away from the ‘linearity ... [where] each stage is meant to build logically on the one that precedes it [and where] overall outcomes can be predicted with reasonable reliability’ (p. 57). Instead of this linear approach that replicates an industrial assembly-line in a factory, we need to see learning as more akin to interweaved, constructed and, perhaps more accurately, as living and organic patterns. University learners are raised in status and in expectations for critical inquiry and adaptive thought to university scholars. University educators, in this approach, become learning specialists and agents of change who continually ask themselves the key question: How does what I am doing contribute to learning?

In this section, we have argued that increased rapidity of change, mostly associated directly or indirectly with the information and communication technological revolution, have placed traditional university pedagogical approaches under significant pressure. We have outlined a response that repositions the university as focused on learning. Furthermore, this new direction will increasingly demand the development of critically analytic and adaptive competence and capabilities.

Conclusion

Throughout this paper, we have attempted to collect some of the necessary conceptual resources to provide a high level understanding of how the future university should structure its educational programs. From our discussion of learning, we conclude that education should be post-pedagogical, that the focus should be on providing experiences that support learning; from our discussion of Nussbaum and MacIntyre we conclude that these experiences should develop the learner’s ability to think critically, so they fulfil their civic duties; from the FYA research into future careers, we conclude these experiences need to develop the learner’s ability to work independently and flexibly, and learn continuously to

expand their technical and communication skills. Combining these three insights we propose the idea of meaningful learning experiences. A meaningful experience, in our sense, is critical in the extended Socratic sense familiar from Nussbaum and MacIntyre, smart in the sense that it is fit for purpose for the contemporary world, and fundamentally focused on learning. Within this framework, our role as educators is to provide our learners with learning experiences that develop:

- **Meaningful thinking:** the ability to couple technical knowledge with communication and problem solving skills in order to engage in reasoned debate about appropriate actions and engagements in the world;
- **Meaningful learning:** the ability to learn continuously, to see beyond the present circumstances and move beyond immediate desires, to see one's self as a learner fundamentally interdependent with other learners; and,
- **Meaningful acting:** the ability to imagine a different future and a different self, and to act flexibly and interdependently to achieve both.

We have argued that technical and societal changes have impacted how universities should go about the second aim, that it makes learning itself a central concern of education. Put another way, that if universities are to be fit for this purpose they need to become post-pedagogical, focused not on teaching as traditionally conceived, but on providing meaningful experiences that support learning. But, following Nussbaum and MacIntyre, we do not see preparing for work as the sole function of a university. Additionally, universities have a responsibility to systematically help people learn how to think for themselves so they can fulfil their civic duties. We argued that discharging these two responsibilities in a post-pedagogical world entails providing our learners with experiences that provoke meaningful and critical thinking, learning and acting. This turn depends on universities moving beyond their myopic focus on specialised skills, to provide generalised foundations that can support an educated public able to successfully engage in society.

We are, of course, not arguing that specialised knowledge and skills are unimportant. Indeed, we place learning at the centre of our framework as it is clear that specialised knowledge and skills need to be continuously updated. But specialised skills alone are insufficient. Society needs professionals who are capable of thinking for themselves, who are capable of actively engaging in society. We

believe the best way to produce such technically competent, critical thinkers is to make meaningful learning central to university life.

References

- Anderson, T (2016) Theories for learning with emerging technologies. In G Veletsianos (ed), *Emergence and innovation in digital learning: Foundations and applications*. Athabasca University Press, Edmonton, AB, pp. 35-50.
- Asikainen, H, Virtanen, V, Parpala, A & Lindblom-Ylänne, S (2013) Understanding the variation in bioscience students' conceptions of learning in the 21st century. *International Journal of Educational Research*, 62, pp. 36-42.
- Barnett, R (2017) Constructing the university: Towards a social philosophy of higher education. *Educational Philosophy and Theory*, 49(1), pp. 78-88.
- Barr, RB & Tagg, J (1995) From teaching to learning: A new paradigm for undergraduate education. *Change: The Magazine of Higher Learning*, 27(6), pp. 12-25.
- Bartle, E (2015) *Personalised learning: An overview*. Available from [https://itali.uq.edu.au/files/1279/Discussion-paper-Personalised learning an overview.pdf](https://itali.uq.edu.au/files/1279/Discussion-paper-Personalised%20learning%20an%20overview.pdf)
- Beard, CM & Wilson, JP (2006) *Experiential learning: A best practice handbook for educators and trainers*. 2nd edn. Kogan Page, London.
- Bellert, A & Graham, L (2017) Educational approaches for students experiencing learning difficulties. In JC Horvath, JM Lodge, & JAC Hattie (eds), *From the laboratory to the classroom: Translating science of learning for teachers*. Routledge, Oxon, UK, Routledge, pp. 229-249.
- Biesta, G (2005) Against learning. Reclaiming a language for education in an age of learning. *Nordic Studies in Education*, 23, pp. 70-82.
- Biesta, G (2009) Good education in an age of measurement: On the need to reconnect with the question of purpose in education. *Educational Assessment, Evaluation and Accountability*, 21(1), pp. 33-46.

- Biesta, G (2015) Freeing teaching from learning: Opening up existential possibilities in educational relationships. *Studies in Philosophy and Education*, 34, pp. 229-243.
- Biesta, G (2016) *Beyond learning: Democratic education for a human future*. Routledge, New York, NY.
- Blaschke, LM (2012) Heutagogy and lifelong learning: A review of heutagogical practice and self-determined learning. *International Review of Research in Open and Distance Learning*, 13(1), pp. 56-71.
- Centre for Educational Research and Innovation (2008) *21st Century learning: Research, innovation and policy. Directions from recent OECD analyses*. Paper presented at the OECD/CERI International Conference. Available from <http://www.oecd.org/site/educeri21st/40554299.pdf>
- Cherry, NL (2005) Preparing for practice in the age of complexity. *Higher Education Research & Development*, 24(4), pp. 309-320.
- Church, IM & Samuelson, PL (2017) *Intellectual humility: An introduction to the philosophy and science*. Bloomsbury, Oxford, UK.
- Davis, HA, Evans, T & Hickey, C (2006) A knowledge-based economy landscape: Implications for tertiary education and research training in Australia. *Journal of Higher Education Policy and Management*, 28(3), pp. 231-244.
- Dekker, SJ, Lee, NC, Howard-Jones, P & Jolles, J (2012) Neuromyths in education: Prevalence and predictors of misconceptions among teachers. *Frontiers in Psychology*, 3, pp. 1-8.
- Dewey, J (1938) *Experience and education*. Touchstone, New York, NY.
- Dumont, H, Istance, D & Benavides, F (2010) *The nature of learning: Using research to inspire practice*. OECD Publishing, Paris.
- Evans-Greenwood, P, O'Leary, K & Williams, P (2015) *The paradigm shift: Redefining education*. Available from <http://landing.deloitte.com.au/rs/761-IBL-328/images/deloitte-au-ps-education-redefined-040815.pdf>
- Evans, T (2005) Changing universities, changing work: A consideration of diversity, change and the (re)organisation of work in higher education. In G Shaw (ed),

Tertiary teaching and learning. Dealing with diversity. UNIPrint, Charles Darwin University, Darwin, NT, pp. 33-50.

Freire, P (1974) *Education for critical consciousness.* Continuum, London.

Geertz, C (1983) *Local Knowledge: Further essays in interpretive anthropology.* Basic Books, New York, NY.

Halsall, JP, Powell, JL & Snowden, M (2016) Determined learning approach: Implications of heutagogy society based learning. *Cogent Social Sciences*, 2(1), 1223904. Available from <https://doi.org/10.1080/23311886.2016.1223904>

Hase, S (2011) *Learner defined curriculum: Heutagogy and action learning in vocational training.* Available from https://www.researchgate.net/publication/254664050_Learner_defined_curriculum_heutagogy_and_action_learning_in_vocational_training

Hase, S & Kenyon, C (2001) *From andragogy to heutagogy.* Available from <http://www.psy.gla.ac.uk/~steve/pr/Heutagogy.html>

Hattie, JAC & Yates, GCR (2014) *Visible learning and the science of how we learn.* Routledge, Abingdon, Oxon, UK.

Horvath, JC, Lodge, JM & Hattie, JAC (eds) (2017) *From the laboratory to the classroom: Translating science of learning for teachers.* Routledge, Abingdon, Oxon, UK.

Howard-Jones, PA (2014) Neuroscience and education: Myths and messages. *Nature Reviews Neuroscience*, 15, pp. 817-824.

Ifenthaler, D (2015) Disruptive technologies affecting academia and professional practice: An introduction to the special section. *Technology, Knowledge and Learning*, 20(1), pp. 1-3.

Illeris, K (2007) *How we learn: Learning and non-learning in school and beyond.* Routledge, London.

Jarvis, P (2006) *Towards a comprehensive theory of human learning* 1st edn. Routledge, Abingdon, Oxon, UK.

Kolb, A & Kolb, DA (2018) Eight important things to know about The Experiential Learning Cycle. *Australian Educational Leader*, 40(3), pp. 8-14.

- Kolb, DA (2015) *Experiential learning: Experience as the source of learning and development* 2nd edn. Pearson Education, Upper Saddle River, NJ.
- Konst, T & Scheinin, M (2018) The changing world has implications on the higher education and the teaching profession. *On the Horizon*, 26(1), pp. 1-8.
- Kuhn, D (2016) Learning is the key twenty-first century skill. *Learning: Research and Practice*, 2(2), pp. 88-99.
- Lamb, S, Maire, Q & Doecke, E (2017) *Key skills for the 21st century: An evidence-based review*. Victoria University, Melbourne, Vic.
- Macallister, J (2016) MacIntyre's revolutionary Aristotelian philosophy and his idea of an educated public revisited. *Journal of Philosophy of Education*, 50(4), pp. 524-537.
- MacIntyre, A. (1987) The idea of an educated public. In G. Haydon (ed.), *Education and values: The Richard Peters Lectures*. Institute of Education, University of London, pp. 15-36.
- MacIntyre, A., & Dunne, J. (2002) Alasdair MacIntyre on education: In dialogue with Joseph Dunne. *Journal of Philosophy of Education*, 36(1), pp. 1-19.
- MacIntyre, A (1990) *Three rival versions of moral enquiry*. Duckworth, London.
- Magolda, MB (2014) Enriching educators' learning experience. *About Campus*, 19(2), pp. 2-10.
- Mathieson, S (2015) Student learning. In H Fry, S Ketteridge & S Marshall (eds), *A handbook for teaching and learning in higher education: Enhancing academic practice*. 4th edn. Routledge, Abingdon, Oxon, UK, pp. 63-79.
- Norton, A, Sonnemann, J & Cherastidtham, I (2013) Taking university teaching seriously. *Grattan Institute Report No. 2013-8*. Available from http://grattan.edu.au/wp-content/uploads/2013/07/191_Taking-Teaching-Seriously.pdf
- Nussbaum, M (2002) Education for citizenship in an era of global connection. *Studies in Philosophy and Education*, 21(4-5), pp. 289-303.

- Nussbaum, M (2010) *Not for profit: Why democracy needs the humanities*. Princeton University, Princeton, NJ.
- Organisation for Economic Co-Operation and Development (2017) *The OECD Handbook for Innovative Learning Environments*. OECD Publishing, Paris.
- Ormrod, JE (2016) *Human learning, global edition*. 7th edn. Pearson Education, Harlow, Essex, UK.
- Paniagua, A & Istance, D (2018). *Teachers as designers of learning environments: The importance of innovative pedagogies*. OECD Publishing, Paris.
- Ramsden, P (2003) *Learning to teach in higher education*. 2nd edn. RoutledgeFalmer, London.
- Robinson, K (2011) *Out of our minds: Learning to be creative*. 2nd edn. Capstone, Chichester, West Sussex, UK.
- Säljö, R.(2009) Learning, theories of learning, and units of analysis in research. *Educational Psychologist*, 44(3), pp. 202-208.
- Schön, DA (1987). *Educating the reflective practitioner*. Jossey-Bass, San Francisco, CA.
- Siemens, G (2005) Connectivism: A learning theory for the digital age. *International Journal of Instructional Technology and Distance Learning*, 2(1), pp. 3-10.
- Sousa, DA (2017) *How the brain learns*. 5th edn. Corwin, Thousand Oaks, CA.
- Stine-Morrow, EAL & Payne, BR (2015) Education and learning: Lifespan perspectives. In JD Wright (Ed.), *International Encyclopedia of the Social & Behavioral Sciences*. Elsevier, Kidlington, Oxford, UK, pp. 137-143.
- Sweller, J, Ayres, P & Kalyuga, S (2011). *Cognitive load theory*. Springer Verlag, Berlin.
- The Foundation for Young Australians (2017) *The new work smarts: Thriving in the new work order*. The Foundation for Young Australians, Melbourne, Vic. Available from http://www.fya.org.au/wp-content/uploads/2017/07/FYA_TheNewWorkSmarts_July2017.pdf
- Treadwell, ML (2017) *The future of learning*. The Global Curriculum Project, Mount Maunganui, NZ. Available from http://www.marktreadwell.com/product_details/d/1/c/41/p/68

- Tokuhama-Espinosa, T (2011) A brief history of the science of learning part 1 (3500 BCE-1970 CE). *New Horizons in Education*, IX(1). Available from <http://jhepp.library.jhu.edu/ojs/index.php/newhorizons/article/view/33/31>
- Waitoller, FR & Artiles, AJ (2016) Teacher learning as curating: Becoming inclusive educators in school/university partnerships. *Teaching and Teacher Education*, 59, pp. 360-371.
- Weimer, M (2003) Focus on learning, transform teaching. *Change: The Magazine of Higher Learning*, 35(5), pp. 48-54.
- Weinstein, Y, Sumeracki, M & Caviglioli, O (2019) *Understanding how we learn: A visual guide*. Routledge, Abingdon, Oxon, UK.
- Wenger, E (2009) A social theory of learning. In K Illeris (ed), *Contemporary theories of learning: Learning theorists ... in their own words*. 1st edn. Routledge, Abingdon, Oxon, UK, pp. 209-218.
- Westera, W (2011) On the changing nature of learning context: Anticipating the virtual extensions of the world. *Educational Technology & Society*, 14(2), pp. 201-212.
- Yang, J, Schneller, C & Roche, S (2015) The role of higher education in promoting lifelong learning. *UIL Publication Series on Lifelong Learning Policies and Strategies: No. 3*. Available from <http://unesdoc.unesco.org/images/0023/002335/233592e.pdf>